

Sunday, Keynote, Arleen Arnsparger, Center for Community College Student Engagement (CCCSE)**Highlights:**

From a student's point of view:

92% of new students believe they have the motivation needed for college

89% of new students believe they have are prepared for college

But the Fact is:50% of students leave within the first year

If you help students especially during the first 12-15 hours to stay, this dramatically improves retention.

Many students are scared, often citing their high school teachers telling them 'they won't let you get away with this.'

Students don't know what they don't know, we don't either.

Faculty often say 'but we gave them the info...' but students DON'T do OPTIONAL, as in advising.

Students say they're worried about "time" and 50% don't manage their time, and again, 50% of students leave within the first year.

So, what does work at the front door? Mandatory meetings, such as with advisors.

So, what does work before classes start? Mandatory orientation, NOT ONLINE. Students will grouse, then go.

So, what does work in class? Discuss, reinforce, MAKE THEM THINK, interact. Provide feedback, listen, provide fun, and be passionate.

A note from returning students, 'I almost dropped...'

So why did they stay? The campus "gave them a name," and put students first.

Monday Keynote, Wright Lassiter, Chancellor, Dallas County Community College District**Highlights:**

Innovation attracts talent

Change can only take place if those involved want to.

He told the story of a gunslinger in the old west that embarrassed a prospector by 'making him dance' by shooting at his feet. Later, the prospector caught the gunslinger unaware, with a shotgun pointed at the gunslinger's head. The prospector said, "Have you ever kissed the backend of a mule?" The gunslinger replied "No, but I have always wanted to." So the trick is all about motivation, and those challenges, and to make sure that the change agent can elaborate, put together cooperation that leads to synthesis.

To assist with adapting to change:

create a vision that fits

take action before the opportunity passes

work toward a 'complete' student

Assess prior knowledge

Provide a career lattice, not a 'one way only' career ladder

The key to college culture that supports innovation: TRUST

Monday 10:00 ROOM 5B, LEVEL 3 | Educational Technology**Unplugged: Retaining Students in an Online Class**

Retaining students in an online class is a challenge. Sometimes students feel that either they or the professor is missing. This presentation will discuss simple strategies for connecting with students and encouraging them to participate in the online classroom.

Amardeep Kahlon, Professor, Austin Community College (TX)

Highlights:

Student's eye email is so "yesterday;" they are quick to leave, and they want it now.

Challenges:

Out of site

propagation delays

Problems with technology

Lack of peer support in an online environment.

Must have faculty buy in, and tutoring & academic support. (Students don't realize it is available)

One Solution: DEADLINES WORK.

<http://www.educationdynamics.com/downloads/press-releases/survey-stop-out.pdf>

Conducted in November 2008, the survey was designed to identify students' motivations for deserting their online degree or certificate programs.

Financial challenges (41 percent) proved to be the main contributor to student attrition, followed by life events (32 percent), health issues (23 percent), lack of personal motivation (21 percent) and lack of faculty interaction (21 percent).

Nearly half (47 percent) of students who dropped out did so even before completing one online course.

When asked to select the resources that online institutions could have provided to improve the online student experience, 53 percent craved more online student services and Web-based academic advising. Self-help, time management and organizational advice also ranked as coveted offerings among students who stopped out (46 percent).

Solutions:

Communication, CONSTANT CONTACT: email, LMS, Chat, see below about using the tools they use (Twitter)

Use discussions, and have introductions, and have a Questions forum.

Have a MANDATORY ORIENTATION, have a FAQ, use regular assignment due dates, and provide quick feedback

Regular assignments keeps students connected, and there should be an incentive to turn in early.

Provide academic review (let them know how they are doing... grades)

LMS may not be enough, use emerging technology: twitter, Facebook, YouTube, Adobe Connect

Tell them they need a PLAN B, what to do if home computer crashes, etc. (Part of orientation?)

Strategies:

Realistic expectations, proper advising, Engagement, and a human touch.

Point out that online classes ARE NOT EASIER, have more time requirements, not less

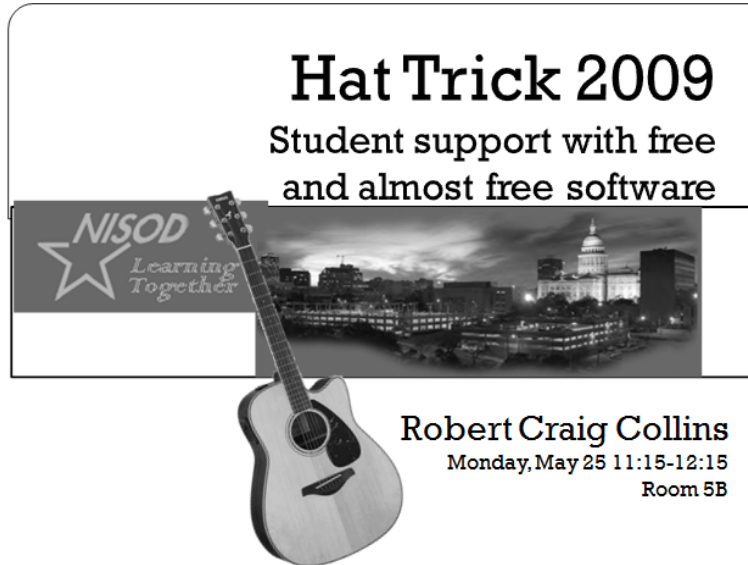
Use humor

Monday, 11:15 ROOM 5B, LEVEL 3 | Teaching/Learning

Hat Trick 2009: Student Support with Free and Almost-Free Software

Faculty can use all the help they can get in addressing multiple learning styles. A great way is to support traditional and e-learning students on the web. What pedagogical foundations and budget-minded solutions are available?

Robert Craig Collins, Faculty, Temple College (TX)



Hat Trick 2009
Student support with free
and almost free software

NISOD
Learning Together

Robert Craig Collins
Monday, May 25 11:15-12:15
Room 5B

Resources

Collins Guides to Curriculum and Technology

<http://www.templejc.edu/dept/cis/CCollins/common/training.html>

Collins Guide to CIA, REACT, and FAA

<http://www.templejc.edu/dept/cis/CCollins/distance-ed/NISOD2006/NISOD-CIA.pdf>

Collins Guide to CIA and Bloom's Taxonomy

<http://www.templejc.edu/dept/cis/CCollins/common/cia-defined.html>

Digital Image Editing Adobe Photoshop or GIMP

<http://www.gimp.org/>

Animated GIF creation

<http://www.whitsoftdev.com/unfreez/>

Creating Adobe Acrobat files Adobe Acrobat Pro or CutePDF

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

Word Processing/Basic Web pages using Microsoft Word or Open Office

<http://www.openoffice.org/>

HTML Web Page Editing Adobe Dreamweaver or NVu

<http://www.net2.com/nvu/>

Video Screen Capture Techsmith Camtasia or Camstudio

<http://camstudio.org>

Audio editing Audacity

<http://audacity.sourceforge.net/>

The image displays a grid of 24 presentation slides, numbered 1 through 24. Each slide features the NISOD logo in the top left corner and a star icon in the bottom left corner. The slides cover various topics related to online learning and support:

- Slide 1: HatTrick 2009** - Student support with free and almost free software. Robert Craig Collins, Tarrant County College.
- Slide 2: Overview** - Learning Styles, Web support for students, Pedagogical foundations, Budget minded solutions.
- Slide 3: Learning Styles** - Visual, Auditory, Tactile/Kinesthetic, Combination.
- Slide 4: Web Support** - Make material available, Asynchronously, Repetition, Demonstration, Support.
- Slide 5: Online Support** - Screenshot of a website.
- Slide 6: Pedagogy** - Basis of successful online material, Blooms Taxonomy, REACT, CIA.
- Slide 7: Bloom's Taxonomy** - Knowledge: define, list, recall; Comprehension: explain; Application: constructs, demonstrates; Analysis: compares, identifies; Synthesis: composes, creates; Evaluation: compares, contrasts.
- Slide 8: Bloom's Online** - Screenshot of a website with a pyramid diagram.
- Slide 9: REACT** - Relate, Experience, Apply, Cooperate, Transfer.
- Slide 10: CIA** - Curriculum, Instruction, Assessment.
- Slide 11: REACT-CIA Online** - Screenshot of a website.
- Slide 12: Goal** - Pedagogically Sound examples, Asynchronous, reproducible, Appeals to multiple learning styles, Geared toward creating and evaluation, Has been vetted by feedback.
- Slide 13: Budget Solutions** - Graphics, Web Pages, Acrobat, Movies, Screen Captures.
- Slide 14: Graphics** - Photoshop \$99, Academic \$299, GIMP www.gimp.org.
- Slide 15: Web Pages Basic** - Microsoft Word \$229, Academic \$115, Open Office www.openoffice.org.
- Slide 16: Web Pages** - Dreamweaver \$399, Academic \$199, NVU www.net2.com/nvu/.
- Slide 17: Acrobat** - Adobe Acrobat Pro \$449, Academic \$99, CutePDF www.cutepdf.com/.
- Slide 18: Movies** - Pinnacle Studio Ulead Video Studio \$99, Windows Movie Maker/iMovie.
- Slide 19: Screen Capture** - TechSmith Camtasia \$299, CamStudio camstudio.org.
- Slide 20: Screen Capture** - What can you screen capture?.
- Slide 21: Screen Capture Examples** - Screenshot of a website.
- Slide 22: Online Support** - Screenshot of a website.
- Slide 23: Recap** - Learning Styles, Web support for students, Pedagogical foundations, Budget minded solutions.
- Slide 24: Conclusion** - Questions?, craig.collins@templejc.edu.

Monday, 1:30 Room 6B, Level 3 | Culture of Evidence

Assessing Academic Disciplines: A Quick, Quantitative Approach

Accurate and timely program assessment is an ongoing challenge, particularly in the academic disciplines. Faculty members at Tarrant County College District (TCCD) have developed a quick, quantitative document for data collection and program review. Building on an earlier model developed by district technical faculty, academic faculty members from various campuses designed a new instrument for program review. The new design enables department chairs and coordinators to assess programs quickly. Decide if the TCCD model is applicable to your academic area!

Linda Wright, Department Chair, History and Philosophy, Tarrant County College Northeast; Yolanda Johnson, Associate Professor, MTH; and Robbie Sheffy, Associate Professor, BUA, Tarrant County College South; and Janice Smith, Professor BIO, Tarrant County College Northwest (TX)

Highlights: Offers three year comparison, short term and long term info on classes and space
Very little open ended, mostly yes/no or numerical data

Actually more an inventory, as it contained no student outcomes. Instrument given to Dr. Botts

Monday, 2:45 ROOM 19A, LEVEL 4 | Leadership/Org. Development**Campus Safety for Community Colleges**

This presentation will review how to craft an appropriate plan for handling school violence—using emergency notification, lock-down, response, and threat assessment. Community college leaders must engage the entire college and address faculty needs and concerns in the classroom.

Lesley Keeling-Olson, Interim Director, Liberal Arts/Department Chair of Criminal Justice; and Mark Smith, Interim Vice President for Educational Services, Temple College (TX)

Monday, 4:00 ROOM 10B, LEVEL 3 | Teaching/Learning**Is This on the Test? Academic Integrity in Online Assessment**

Many online courses rely heavily on testing as a primary means of assessment, in spite of a fear of student cheating. This presentation will examine the role that a multiple means of assessment approach—including testing to curb cheating and increase student engagement—has on the academic integrity of the course.

Richard Leslie, Coordinator, Center for Instructional Design; and Fred Hills, Program Director, CIS, McLennan Community College (TX)

Highlights:

Many believe that students cheat more online than in tradition, and that they can catch them in class

Many solutions to online testing, such as lockdown browsers, are not ADA compliant.

Get a writing sample from students to compare to later.

Let the learners know as much as possible about the process, and how easy it is to catch cheaters.

Many feel pressured into cheating, especially if time management breaks down.

See handout 1

Tuesday, Keynote, Lumina Foundation, Achieving the Dream

Highlights: Trying to go from 39% with degrees/credentials to 60%, and has spend \$64,000,000 plus raised an additional \$15,000,000

Goal: Excellence and Equity

Focus: Retention and Graduation, such as Developmental Math and English

Facts: only 17% completed math sequence after 2 years

support skills class + math improved success and helped with closing the gap, going from 13.6 to 3.6%

Tuesday, 10:00 ROOM 17A, LEVEL 4 | Teaching/Learning

Using Brain Research to Enhance and Energize Instruction

This lively presentation, peppered with humor, music, and audience participation, engages and empowers educators. Take a tour of a real brain via MRI brain scan, and learn how multiple pathways are involved in learning. Explore how knowledge is constructed in the brain, with implications for classroom practices. Discover principles for instruction, based on brain research, and acquire strategies for addressing learning differences. Experience what it feels like to use alternative pathways in the brain. Participants will leave this session energized and excited about trying these new approaches to teaching and learning!

Janet Zadina, Assistant Professor, Cognitive Neuroscience/Educational Neuroscience, Department of Psychiatry and Neurology, Tulane University School of Medicine, New Orleans (LA)

See handout 2

Tuesday, 11:15 Room 9B, Level 3 | Developing Faculty**The Future of Faculty Development**

As budgets contract, faculty members retire, and technology becomes more pervasive, what will be the focus of faculty development? This completely interactive session will give participants an opportunity to work toward substantial answers to this question, using the open-spaces method.

Karinda Barrett, Director, Center for Teaching Excellence, Tallahassee Community College (FL) barrettj@tcc.fl.edu

Takeaway: polleverywhere.com (free)

Takeaway: txpod.org The network (Teaching Excellence)

Discussed attendance at professional development, recording of attendance, and rewarding attendance, and the need to include adjunct

Tuesday, 1:30 Ballroom G, Level 4 | Developing Faculty**Bridge to Student Success: Supporting Adjunct Faculty**

Richland College's vision is to be the best place we can be to learn, teach, and build sustainable local and world community. Learn how this Baldrige institution recruits, supports, and integrates adjunct faculty to accomplish its strategic planning priorities of response to community, student success, employee success, and institutional effectiveness. In this interactive session, presenters will share strategies to acquaint adjunct faculty with college culture, provide professional development, and create a climate with a focus on student learning.

Zarina Blankenbaker, Associate Vice President for Teaching and Learning; Audra Barrett, Dean, Distance Learning; and Judy Cline, Adjunct Professor, Richland College (TX)

They have created ACCESS (Adjunct College Center for Evening/Weekend Support Services) \$28000-\$22000/yr
30\$ full time faculty, 70% adjunct (80% adjunct hours during the day)

They use recruitment fairs, grad schools, and work of mouth to recruit

ACCESS has conference rooms, office staff (copy, rolls notification), computer carrels, and IT support for adjunct

Offer professional development that leads to certificate; certificate leads to class choice and more classes

<http://www1.dcccd.edu/rlc/adjunctorient/index.cfm> see also <http://www.Part-TimePress.com/shop>

Tuesday, 2:45 ROOM 5B, LEVEL 3 | Instructional Technology**Beyond Web 2.0: How to Use Internet Assets to Teach More Effectively**

This presentation will emphasize considering and applying web resources (including Web 2.0, Semantic Web and audio/video) tools in the classroom, including presentation and assessment. These tools are appropriate for any instructors—including those teaching full-distance and web-assisted courses. Participants will leave with real-world ideas and a resource list of more than 400 education-friendly websites.

Jeff Borden, Education Solutions Consultant, Pearson eCollege (CO) jeffb@ecollege.com

HP and IBM now ask on application if applicant has taken any online courses, as that reflects mastery of a skill set
50% of skills now become outdated in 3-5 years as we continue to move away from agriculture, industry, information, and service to a creativity society, where we move information to ordered knowledge.

Takeaway: SMS such as ChaCha.com can support cell request for info

Generation M will be multi modal and multi nodal, and will need variation in instruction

Takeaway: 'Standard issue students' are rare. Deal with multiple intelligences.

His teaching model: tell show do review and ask.

Suggestions: Google *topic*, simulate applet for widgets (widgetbox.com) ; games (competition, rules, goals)

Takeaway: search YouTube for How not to use PowerPoint

Takeaway: zentation.com combines YouTube and PowerPoint To Handout (ppt)

Wednesday, 8:15 Room 13B, Level 4 | Educational Technology**Motivating and Supporting Faculty in Online Instruction**

How can your institution motivate faculty to teach online? This session will examine faculty misconceptions about online instruction and ways to incorporate effective instructional support to make life easier for students, teachers, and administrators.

Katie O'Brien, Graduate Assistant; and Preeti Palvankar, Education Technology Designer, Kent State University (OH)

They lied. They only discussed the problems, with no solutions. Gripe session.

Wednesday, 9:30 Room 8A, Level 3 | Developing Faculty**Walking the Talk: Distance Learning Certification for Faculty**

Effective online teaching requires multiple talents, including mastery of content, pedagogy, and an understanding of available technology tools to achieve instructional outcomes. Discover how a collaborative effort resulted in the development of a certification process for online educators. This certification process ensures high-quality, consistent approaches to online instruction.

Charles Fox, Director, Instructional Technology Services; and Jim Rhodes, Instructional Technologist, Polk Community College (FL)

Check out <http://elearning.polk.edu/>

username nisod

password nisod

Combines face to face training with online modeling and content

Is this on the test?

Academic Integrity in Online Assessment

Richard Leslie
Fred Hills
McLennan Community College

Leslie/Hills - NSOD 2009

Questions

- How do you define Academic Integrity?
- How many of you believe that students cheat more often on online tests than they do in traditional settings?
- How many of you require proctored testing?
- How many of you build in multiple means of assessment in your online courses?

Leslie/Hills - NSOD 2009

What is Academic Integrity?

- Scholarly activities in an open, honest and responsible environment
- Commitment NOT to:
 - Falsify
 - Misrepresent
 - Deceive
- Promote values of:
 - Honesty
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 - Responsibility

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"The phrase *academic integrity* carries a variety of meanings. One meaning refers to the extent to which a course of learning that is offered actually delivers what is promised in a competent, clear, and complete way. Another meaning refers to the extent to which the assessment of student progress is carried out fairly, without bias, and *without being compromised by dishonesty on the part of the test-taker – in short, without cheating.*"

(Shyles, 2002)

Leslie/Hills - NSOD 2009

Why the concern with Online Academic Integrity?

Explosive Growth in Online Courses

- 9.7% growth of enrollment from 2005 - 2006
- 25% of all US Higher Ed students online - 3.5 Million students

2007 Sloan-C report *Online Nation*

Leslie/Hills - NSOD 2009

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Faculty Perceptions

- Today's technology makes it easier to cheat
- Educators believe they can spot cheating – but online cheating is new territory
- Tools that are used in traditional classrooms, such as tests or pop quizzes or proctored exams do not work as well in an online environment

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Leslie/Hills - NSOD 2009

The truth is out there (maybe?)

- While there exist plenty of studies related to plagiarism, there are few hard statistics related to online cheating on tests.
- Cheating is a serious concern:
 - Results of one study of 824 college students, 76% said they would cheat with only 2% saying they would not and turn in those who did (Chapman, Davis, Wright, 2004)
 - 70% of undergraduates say that they have cheated and 25% have done so in the last year (McCabe, 2005)

Leslie/Hills - NSCO 2009

The truth is out there (maybe?)

- However, research indicates that cheating is no more prevalent in online courses than it is in face to face classes. (Carnevale, 1999; Hamlin & Ryan, 2004; Kellogg, 2002; Grijalva et al., 2006)

Leslie/Hills - NSCO 2009

Perception versus reality?

- Despite research showing a large number of students cheat in traditional classes, faculty still believe they are better able to detect cheating in a proctored environment

Leslie/Hills - NSCO 2009

Concern with identity

Higher Ed Reauthorization Bill

Institutions offering distance education are required to have processes to establish that "the student who registers in a distance education . . . program is the same student who participates in and completes the program and receives the academic credit." [HEA, sec 495]

Leslie/Hills - NSCO 2009

WCET's Recommendations in response to the Higher Ed Reauthorization Act

- Use Compliance approaches
 - Employ plagiarism detection software and lock-down browsers
 - Establish physical proctoring centers
 - Install remote proctoring devices – biometrics, web cams, for example
 - Utilize other student identity technologies – embedded questions about personal history, addresses, favorite pet, etc

Leslie/Hills - NSCO 2009

WCET's Recommendations in response to the Higher Ed Reauthorization Act - continued

- Use Prevention approaches
 - Employ varied assessment techniques in place of high stakes exams
 - Put greater reliance on written assignments and threaded discussions
 - Use large test banks and timed test delivery
 - Establish institutional honor codes and educate students on appropriate and inappropriate academic behavior

Leslie/Hills - NSCO 2009

A Secure Testing Environment

- Issues
 - Who is taking the test?
 - Cheating
 - Working in Groups
 - Sharing the test questions
 - Using other resources
- Possible Solutions
 - Proctored testing centers
 - Secure browsers
 - Biometrics
 - Other third-party solutions

LakeHills - NSOD 2009

Test Integrity

- Strategies
 - Use large test banks and pull random blocks of questions to ensure unique tests for each student
 - Time limits on tests
 - Use scripting inside of tests to prevent printing or copying of tests
 - Use password access to tests
 - Add personal questions to test to verify identity

LakeHills - NSOD 2009

“Simply by changing the assessment of your subject you can affect the way students engage with the subject content.”

Institute for Interactive Media and Learning
- University of Technology Sydney

LakeHills - NSOD 2009

Changing the way we look at Assessment

- Not necessarily a change in practice but a reframing on how we look at it
 - What's the purpose of assessment?
- Assessment that is ongoing
 - Multiple means of assessment that include ongoing activities
- Assessment of Higher Order Thinking Skills (HOTS) as well as lower
 - Not just knowledge but application and creation of new things

LakeHills - NSOD 2009

Reframing the Issue

- Multiple means of assessment
 - To address academic integrity issues
 - Because it's good pedagogy
- Timely and appropriate feedback
 - Without feedback, assessment is not a learning activity it's a compliance activity
- 21st Century Learner
 - Focusing assessment on using and finding, rather than memorizing and repeating
 - Elliot Masie – finger up knowledge
- What employers want
 - Those who can collaborate
 - Those who can communicate
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LakeHills - NSOD 2009

Why give a test using the online testing module?

- What's driving the decision to use testing in the online course structure?
 - Convenience
 - For Students and Faculty
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 - For Faculty
 - Easy to deploy
 - Textbook publisher resources – test banks
 - Pedagogy

LakeHills - NSOD 2009

A Secure Testing Environment

- Issues
 - Who is taking the test?
 - Cheating
 - Working in Groups
 - Sharing the test questions
 - Using other resources
- Possible Solutions
 - Proctored testing centers
 - Secure browsers
 - Biometrics
 - Other third-party solutions

LakeHills - NSOD 2009

Test Integrity

- Strategies
 - Use large test banks and pull random blocks of questions to ensure unique tests for each student
 - Time limits on tests
 - Use scripting inside of tests to prevent printing or copying of tests
 - Use password access to tests
 - Add personal questions to test to verify identity

LakeHills - NSOD 2009

“Simply by changing the assessment of your subject you can affect the way students engage with the subject content.”

Institute for Interactive Media and Learning
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Is online testing bad?

- Testing isn't always bad, but it is not the only means we have of assessing student progress online.
- Testing is an Assessment approach but not the only approach.
- In addition to the Higher Ed Reauthorization Act's concern with academic integrity, there are some significant security issues with online testing.

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Assessment that is ongoing

- Research Papers
 - Students submit preliminary work
 - Essays
 - Case studies
 - Timely events
- Discussion board activities
 - It is easy to see the students voice throughout the semester
 - Can demonstrate depth of knowledge as the student engages with other students
- Group Work
 - Use of wikis and other collaborative environments

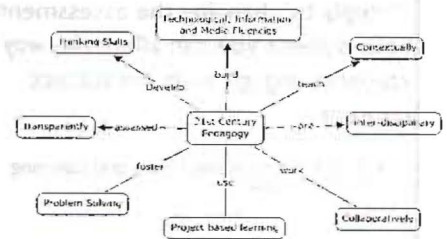
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Assessment that is ongoing

- Projects
 - Presentations
 - Creation of media
- Journaling
 - Reflective
 - Reveals understanding
- Learning Contracts
 - Student driven assessment
 - Structured between Faculty and Student
 - Activities related to learning objectives
- Service Learning and Internships

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21st Century Pedagogy



Churches, Andrew, *Educational Origins*, 2008

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Addressing HOTS for the 21st Century Learner

- Analysing
 - Mindmaps to show connections and flow
 - Reports
 - Mashing
 - Social Bookmarking
- Evaluating
 - Debates via DB, IM, Video and Phone Conferencing
 - Group discussion summaries
 - Moderating Discussion Groups

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Addressing HOTS for the 21st Century Learner

- Creating
 - Blogging and Video Blogging
 - Podcasts
 - Modeling
 - Social Networking
 - Simulation

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Testing's place in all of this?

- While online testing can be used to assess HOTS, the resulting testing is usually not self grading.
 - Difficult to structure multiple choice or T/F questions to measure HOTS
 - Essays
 - Short Answers
- Security issues outside of a proctored setting make it hard to give high stakes tests.

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Testing's place in all of this?

- Testing can be a learning tool
 - Allow students to take the same test repeatedly until they make a certain score
 - Build feedback that contains information on where to find the answers into the test
- Short quizzes can provide learning feedback to both the student and the instructor as to student's command of foundational knowledge
 - Use of multiple short quizzes through the semester – low stakes so less incentive to cheat

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Summary

- Is there an Academic Integrity problem with online testing?
 - Faculty Perceptions
 - Mandate
- Is online testing necessary?
 - Student and Faculty Convenience
 - Pedagogy
- Can we make online testing more secure?
 - Proctoring
 - Remote Proctoring Devices
 - Third-party tools
 - Scripts

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Recommendations

- Reframing the issue of assessment
 - Pedagogical basis for using online testing
 - Immediate feedback
 - Recognizing the limitations of the CMS testing modules to easily address HOTS
 - Utilizing multiple means of assessment
 - Ongoing assessment
 - Digital formats
 - Addressing the needs of the 21st Century Learner
 - Focusing assessment on using and finding, rather than memorizing and repeating
 - What employers want
 - Real world learning
- Build Academic Integrity into course structure

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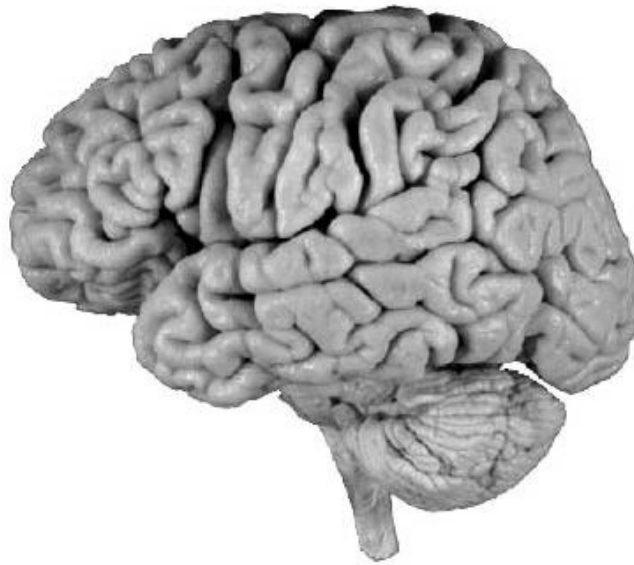
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USING BRAIN RESEARCH TO ENHANCE AND ENERGIZE INSTRUCTION



**Presented by
Janet N. Zadina, Ph.D.**

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PRINCIPLES AND STRATEGIES TO ENHANCE LEARNING

Principles	Strategies
1. The brain processes parts and wholes simultaneously.	metaphor, humor, complex activities, real-life content, thematic teaching, interdisciplinary
2. The brain seeks patterns naturally.	discovery, inquiry, puzzles, thematic teaching, graphic organizers, interdisciplinary teaching
3. The brain processes information in multiple pathways.	talking, writing, humor, faces, real-life content, complex activities
4. Learning engages the entire physiology.	self-care (nutrition, sleep), movement, music, emotion, interdisciplinary courses
5. The brain is a social brain.	collaborative learning, rituals, games, talking
6. Each brain is unique.	multiple options for achieving objectives, projects, alternative assessments, collaborative learning
7. Emotions are critical to learning. Threat and helplessness impair learning and appropriate challenge enhances learning.	celebration, rituals, procedures, music, bonding activities, appropriate deadlines, appropriate levels of challenge
8. The search for meaning and the need to interact with the environment is innate. Embedding learning in real contexts and spatial memory promotes understanding and enhances memory.	discovery, collaboration, real-life projects, community involvement, meaningful activities, movement, kinesthetic projects, thematic teaching, interdisciplinary courses
9. Learning involves both focused attention and peripheral perception. Learning involves unconscious processes.	classroom peripherals, teacher demeanor, processing time, reflection (daydreaming), real-life activities, contextual learning, interdisciplinary courses

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Workshops are available on this subject, as well as other topics relating to the brain and learning. Please contact jzadina@uno.edu or call 504-887-5444 for information.

What Can You Do?

- ◆ Strengthen pathways
- ◆ Look for the compensatory gift
- ◆ Use larger print and use visual and auditory aids
- ◆ Find an area of strong interest and provide reading and activities in that area
- ◆ Offer assignments that access alternative pathways

The following information is from *Caine & Caine (see Suggested Reading)*

Optimal Brain Functioning

- ❖ Students' ownership and sense of control over the learning
- ❖ Positive social bonding
- ❖ Hope and positive expectancy
- ❖ A world that makes sense
- ❖ Playfulness, joy
- ❖ Respect of students and teachers for themselves and each other
- ❖ Self-discipline and capacity to delay gratification
- ❖ Sense of connectedness

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Comparison of Teaching Models

Caine, R. N. & Caine, G. (1991). *Making Connections: Teaching and the Human Brain*. Menlo Park: Addison-Wesley.

Element of Orchestration	Traditional Teaching	Brain-based Teaching
Source of Information	Simple. Two-way from teacher to book, worksheet, or film to student	Complex. Social interactions, group discovery, individual search and reflection, role playing, integrated subject matter
Classroom Organization	Linear. Individual work or teacher directed.	Complex. Thematic, integrative, cooperative, workstations, individualized projects
Classroom Management	Hierarchical. Teacher controlled.	Complex. Designated status and responsibilities delegated to students and monitored by teacher.
Outcomes	Specified and convergent. Emphasis on memorized concepts, vocabulary, and skills.	Complex. Emphasis on reorganization of information in unique ways, with both predictable and unpredictable outcomes, divergent and convergent, increase in natural knowledge demonstrated through ability to use learned skills invariable contexts.

Threat and High Stress Impair Learning

- Anything that embarrasses students
- Unrealistic deadlines or expectations
- Uncomfortable physical arrangements
- Inappropriate rules or teaching practices
- Threat of harm or ultimatums

What Cannot Be Accomplished in This Mental State

- Higher order thinking
- Abstract thinking
- Metaphorical thinking
- Creativity
- Metacognition
- Ability to see broader implications and multiple perspectives

Optimal Brain Functioning

- ✓ Students' ownership and sense of control over the learning
- ✓ Positive social bonding
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- ✓ A world that makes sense
- ✓ Playfulness, joy
- ✓ Respect of students and teachers for themselves and each other
- ✓ Self-discipline and capacity to delay gratification
- ✓ Sense of connectedness

=====

From jzadina@uno.edu

What Can You Do to Help Struggling Readers?

- ✓ Strengthen pathways by giving them practice on problematic skills
- ✓ Look for the compensatory gift and give them assignments that utilize their strong skills
- ✓ Use larger print and use visual and auditory aids
- ✓ Find an area of strong interest and provide reading and activities in that area
- ✓ Offer assignments and assessments that access alternative pathways and multiple intelligences

Suggested Reading

- *Caine, G. & Caine, R. & C. S. (1994). *Mindshifts: A Brain-based Process for Restructuring Schools and Renewing Education*. Tucson: Zephyr.
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*Start with these

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BRAIN & LEARNING RESOURCES ON THE WEB

Brain Lab: <http://222.newhorizons.org/blab.html>

Brain Mind Learning: <http://www.cainelearning.com>

Brain Plasticity, Language Processing:

http://apu.sfn.org/content/Publications/BrainBriefings/brain_lang_reading.html

Brain Science for the 21st Century: <http://www.nexus.edu.au/teachstud/gat/davies.htm>

Brain Work-outs: <http://apu.sfn.org/content/Publications/BrainBriefings/work.outs.html>

Critical Thinking: <http://www.sonoma.edu/Cthink/>

Drake University: An Overview of Brain Research:

http://www.educ.drake.edu/romig/cogito/brain_and_mind.html

ERIC Article "Academic Interventions for Children with Dyslexia Who have Phonological Core Deficits.

ERIC Digest E539: http://www.edgov/databases/ERIC_Digests/ed385095.html

How Do Facts Stick in Our Mind?:

<http://apu.sfn.org/content/Publications/BrainBackgrounders/memory.htm>

Layered Curriculum: <http://www.Brains.org> (*I think you will enjoy this and get some strategies. JZ*)

Mind/Brain Learning Principles: http://www.newhorizons.org/ofc_21clicaine.htm

Brain Facts: www.sfn.org/brainfacts .

Neuroscience Education: <http://faculty.washington.edu/chudler/ehceduc.html>

Neurosciences on the Internet: <http://www.neuroguide.com/>

Project Zero from Harvard University: <http://pzweb.harvard.edu/default.htm>

DYSLEXIA RESOURCES

International Dyslexia Association: www.interdys.org/index.jsp

LA Dyslexia Association: Carolyn Blackwood, Pres., 888-323-0332

Resource: Patty Glaser, The Learning Center housed at Holy Rosary Academy, 482-7173

Dyslexia Specialist: Denise Nagim, 517 N. Causeway Blvd., Suite A, 835-5550

See bibliography for texts.

Workshops are available on this subject, as well as other topics relating to the brain and learning. Please contact jzadina@uno.edu or call 504-887-5444 for information.

CHECKLIST OF USEFUL QUESTIONS

From Caine & Caine: *Making Connections: Teaching and the Human Brain*

1. Are students involved and challenged?
2. Is there clear evidence of student creativity and enjoyment? Are students dealing appropriately with dissonance?
3. Are students being exposed to content in many ways that link content to life?
4. Are students' life themes and metaphors being engaged?
5. Are there "hooks" that tie the content together in a big picture that itself can make sense to students?
6. Is there some sort of continuity, such as through projects and ongoing stories, so that content is tied together and retains interest over time?
7. Is there any sign of continuing motivation or student interest that expresses itself above and beyond the dictates of the class?
8. Is the physical context being used optimally?
9. What do the setting, decorations, architecture, layout, music, and other features of the context actually say to students?
10. What sort of group atmosphere is emerging?
11. Are there any signs of positive collaboration, and do they continue after the lesson and after school?
12. Do students have opportunities to reorganize content in creative and personally relevant ways?
13. Are there opportunities to reflect in an open-ended way on what does and does not make sense?
14. Are students given the opportunity to apply the material in very different contexts?
15. Do students consciously and deliberately examine their performances in those different contexts and begin to appreciate their own strengths and weaknesses?

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TICKET OUT THE DOOR

1. The part of the presentation I liked the best was.....

(Would you have liked that expanded upon or was sufficient information provided in the time available?)

1. The part that could have been shortened or eliminated was.....

...because.....

2. As a result of this presentation I feel.....

3. Overall, I thought the presentation was.....

4. This presentation will affect my teaching in the future in that I will.....

5. What would you like the presenter to cover in future talks on the brain and learning?

6. One thing I didn't understand well was.....

7. Would you recommend this presentation to others?

8. Other comments and suggestions:

If you are interested in arranging a workshop for your organization or group please provide the following:

NAME _____ PHONE# (_____) _____

EMAIL _____ BEST TIME TO CALL: _____