



**Preclass Warm Up Activities & Questions
(Creativity in Early Childhood)**



Curtis J. Bonk, Professor, Indiana University
President, SurveyShare
cjbonk@indiana.edu
<http://php.indiana.edu/~cjbonk>



Mathematical Insight Problems

1. Smith Family: In the Smith family, there are 7 sisters and each sister has 1 brother. If you count Mr. Smith, how many males are there in the Smith family?

- **Solution:** *Two (the father and the brother)*

Mathematical Insight Problems

2. Eyes: Yesterday I went to the zoo and saw the giraffes and ostriches. Altogether they had 30 eyes and 44 legs. How many animals were there?

- **Solution:** *15 (30 eyes each animal has 2 eyes = 30/2)*

Mathematical Insight Problems

3. Widow: Is it legal for a man to marry his widow's sister? Why or why not?

- **Solution:** *no he is dead*

What do these people have in common?

- Kant, Da Vinco, Rembrandt, Pound, Copernicus, Descartes, Newton, Pascal, Faraday
- All had schizophrenia

What do these people have in common?

- Frost, Hemingway, Van Gogh, Tchaikovsky, Darwin, Byron, Michelangelo
- All had affective disorders



What do these people have in common?

- Tennyson, Huxley, Beethoven, Einstein, Freud, Mendel, R. Browning
- All had personality disorders

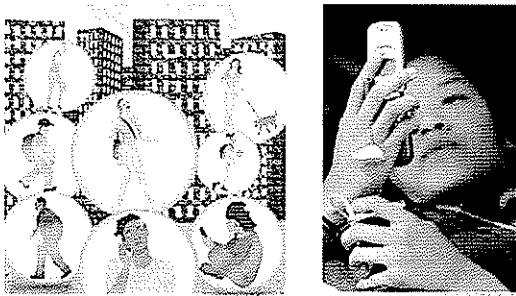


Questions from OU

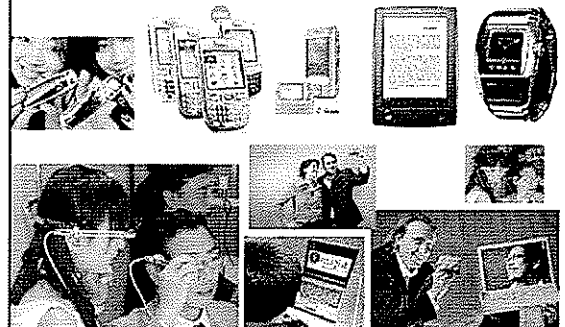


1. How do you/teachers encourage children who think that they are not creative?
2. What do you believe is the best tool for expressing/developing creativity?
3. What are some ways to integrate creativity into various subject areas?
4. If a person was not exposed or developed to be creative as a child, could s/he catch up later?

One Best Tool?



Technologies of the 2000's



The Indianapolis Metropolitan and Creative Guilds
Sustaining Training Council

TRAINER'S CREATIVITY DAY CAMP

An imaginative, hands-on, and joyful 2 1/2 day approach to great training!

- 1. Hands-on training and collaboration
- 2. Fun and interactive learning experiences
- 3. Hands-on training and collaboration
- 4. Fun and interactive learning experiences

April 12-16, 2004 • Indianapolis, IN
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Event! online today at WWW.NAATC.COM or call 1-800-666-6666



5. All children are creative but some show their creativity as art or through sports. What do you do with a child who is creative, but uses it to cause mischief with out breaking their creative spirit?



6. What should you tell children when you ask them to be creative, but their assessment is a fill in the bubble test?



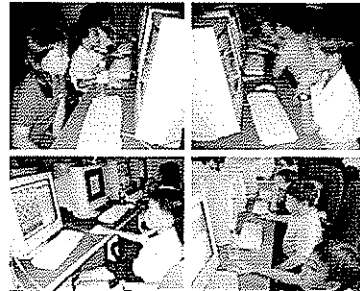
7. What technology is good for encouraging children's creative process in classrooms?



8. Do you find the program KidPix helpful in children's creativity?

Poll #1:

Raise your hands if you are a digital native (grew up with a computer at home).



Poll #2:

What age learners are you interested in?

- a. Ages 1-3
- b. Ages 4-6
- c. Ages 7-8
- d. Ages 9-11
- e. Ages 12+



Poll #3:

What age learners is creativity the easiest to teach at?

- a. Ages 1-5
- b. Ages 6-10
- c. Ages 11-15
- d. Ages 16-20
- e. Ages 21+



**Learning with iPods
(Campus Technology, Dec, 2006)**



**Student Rap Podcast
(in schools—kids have power!)**

"Just the word 'podcast' scares a lot of teachers away," Ms. Schrock said. "There are a lot of misconceptions."
 "All you need is a computer, access to the Internet and a microphone that you can buy at Toys 'R' Us," Mr. Warlick said. "I listen to podcasts on my computer." (NY Times, Jan 25, 2006)



Student Podcast (in schools—kids have power!)

Steve and Nick



Water's End




Let's Go for Soda







Digital Storytelling


Digital Storytelling:



Creativity for Early Childhood Educators

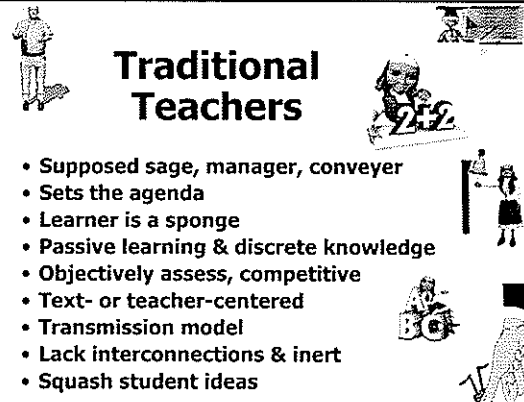



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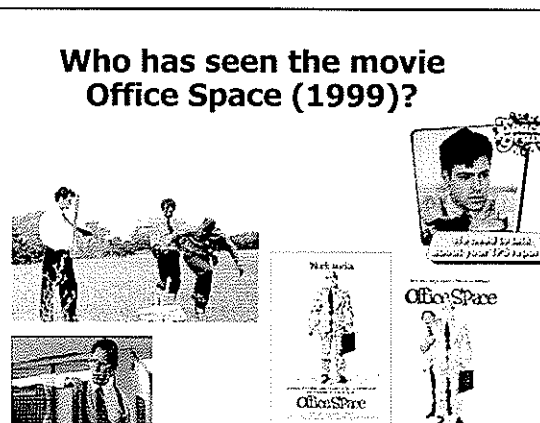


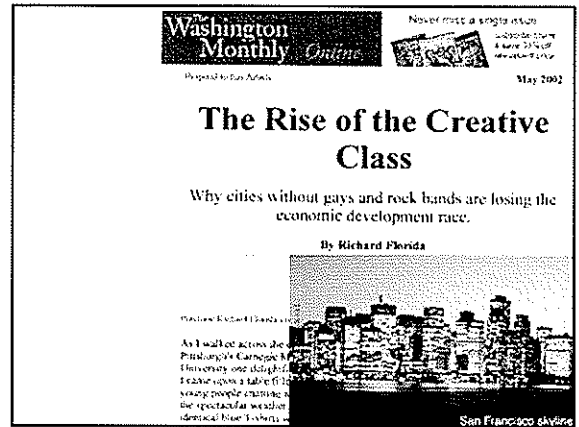
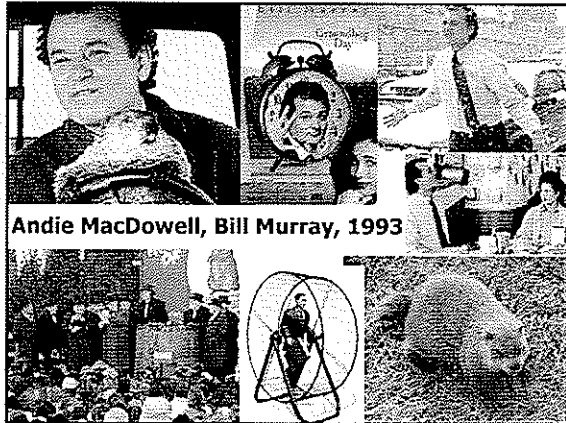
Traditional Teachers

- Supposed sage, manager, conveyer
- Sets the agenda
- Learner is a sponge
- Passive learning & discrete knowledge
- Objectively assess, competitive
- Text- or teacher-centered
- Transmission model
- Lack interconnections & inert
- Squash student ideas




Who has seen the movie Office Space (1999)?





What about Athens? Is it a creative place? What makes it cool?

What is an idea city? Where want to live? What makes it cool?

- Culture, parks, night spots, scenery, outdoor recreation, music scene, all-night cafes, extreme sports, outdoor recreation
- Lots of job opportunities
- Diversity within the community

What is an idea city? Where want to live? What makes it cool?

- Convenience for amenities
- Fun; high energy—bike lanes, ultimate Frisbee, climbing walls, urban parks, bistros and cafes not chains

The Creative Class

- Values creativity, value tolerance, promote individuality, embrace diversity and differences, open to immigration, and merit
- Are active & participate, not watch sports
- Want: relax dress codes, use flexible schedules, and new work rules

The Creative Class

- Engage in work to create meaningful new forms (scientists, engineers, professors, poets, novelists, actors, entertainers, architects, analysts, think-tank researchers, artists, editors, cultural figures)



20 Pedagogical Strategies: Creative Thinking

1. Metaphorical Thinking, Syntectics
2. New Perspectives
3. Webbing, Mind Mapping
4. Just Suppose, What if?
5. Creativity Awareness
6. Creative Dramatics, Improv
7. Creative Writing and Story Telling, Forced Wrap Around, Object Obits
8. Wet Ink, Diaries, or Freewriting
9. Brainstorming, Top Ten Lists
10. Reverse Brainstorming



20 Pedagogical Strategies: Creative Thinking

11. Attribute Listing, Modification, & Transformation
12. Idea Spurring Questions, Think Sheet-
13. International Future Problem Solving
14. Checkerboarding
15. Morphological Synthesis
16. Creative Role Play
17. Visualization, Imagination!
18. Simulations, Creativity License Cards, Six Hats
19. Web Safaris, Explorations, Web Link Suggestions
20. Problem- and Product-Based Learning (PBL)



1. Metaphorical thinking

- how is my school like:

- a prison, a beehive, an orchestra, ghetto,
- expedition, garden, family, herd, artist's palette,
- machine, military camp, Olympic games, hospital, theater, etc.



1. Metaphorical thinking, Analogies, ...

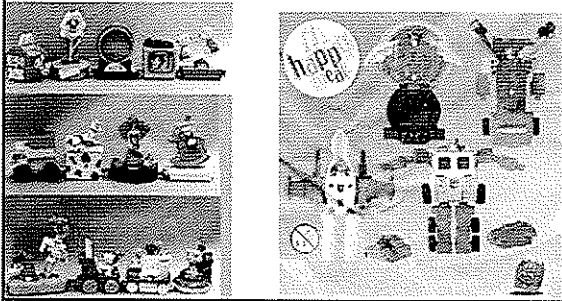
1. Creativity is like ____.
2. Being Creative is like ____.
3. Creativity is to ____ as...



Can young children make analogies?



**How many happy meals
are in your closet?**



1. Synectics

Combining 2 dissimilar ideas. The joining together of unrelated elements (William J. J. Gordon). One brings strange concepts into familiar areas.

Putting yourself in a situation.

Thinking of how others might solve the problem.

What is synectics?

- syn-ec-tics \ si-'nek-tiks \ n pl but usu sing in constr [perh. fr. Gk synektiktein to bring forth together (fr. syn- + ektiktein to bring forth, fr. ex- out + tiktein to beget) + E -s (as in dialectics) - more at EX·THANE]:



George M. Prince (retired cofounder of Synectics)



George M. Prince (retired cofounder of Synectics)

- The company that initiated research into the creative process and then became the leading teacher of inventors for business and industry.
- The Practice of Creativity, Harper and Row, 1970

Creativity and Learning as Skills, Not talents (George Prince)

Safekeeping Self:

- Censors
- Makes rules
- Punishes mistakes
- Avoids wrongness
- Evaluates, is logical
- Fearful
- Avoids surprises
- Analyzes
- Guides, reassures, and supports
- Looks at consequences

Experimental Self

- Feels, plays, has fun
- Breaks rules
- Does not mind being confused or wrong
- Is intuitive, speculates
- Open to anything
- Recognizes patterns
- Imagines
- Curious
- Makes connections
- Likes surprises

How to Promote the Creativity of Young Children?

- Use children's natural creativity.
- Foster fun!
- Comfortable and friendly tone and environment
- Acceptance and trust
- Caring
- Action, movement, bodies doing something

How to Hinder the Creativity of Young Children?

Idea Squelchers!

- "It won't work"
- "Be practical. Don't be foolish."
- "Follow the rules."
- "We've never done it that way b4."
- "Let's wait and see."
- "It's too late."
- "It's not in the curriculum."

Early Childhood Practices to Foster Safekeeping and Risktaking Self

Safekeeping Behaviors Risktaking Behaviors?

- Watching/monitoring
- Evaluating
- Pressuring
- Restricting Choices
- Telling what to do
- Constant competing
- Constant rewarding

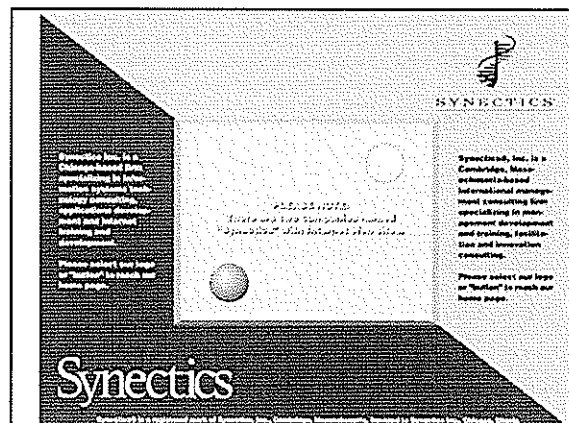
• From: George Prince
[mailto:loganprince@comcast.net]
Sent: Thursday, September 13, 2007 3:22 PM
To: Bonk, Curtis Jay
Subject: Article

- Thanks for your interest. That was an article I wrote for the Exeter Bulletin in about 1980, and it reflected my belief that everyone is born with plenty of talent. It gets shut down by the way we are treated.

Good luck!
George (GeorgeMPrince.com)

George M. Prince (retired cofounder of Synectics)

- The concept of climate is far more basic to group success than we have realized. I prefer the term 'field' because it more accurately captures the wholeness, the entirety and inclusiveness of the concept. It is also gaining scientific acceptance in areas beyond quantum physics.



What is Synectics

- Synectics is a problem solving approach that stimulates thought processes of which the subject is generally unaware. This method, developed by William Gordon, has as its central principle: "Trust things that are alien, and alienate things that are trusted."



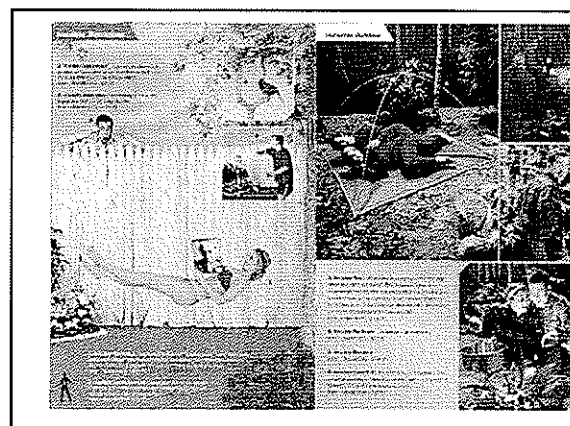
10 Steps to Synectics

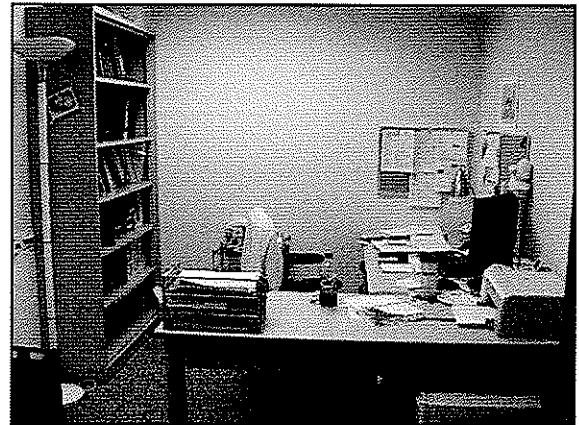
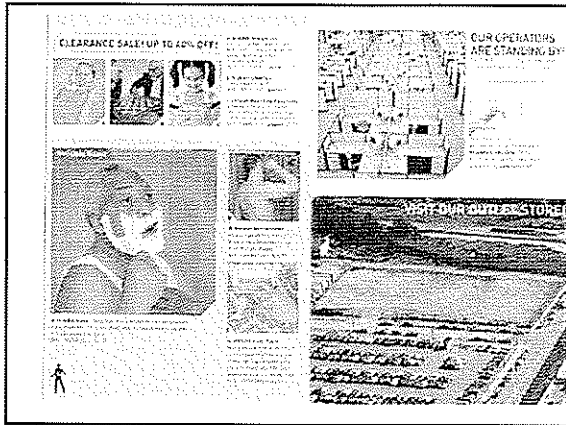
1. Analysis and definition of the problem
2. Spontaneous solutions
3. Reformulation of the problem
4. Creation of direct analogies
5. Personal analogies (identification)
6. Symbolic analogies (contradictions)
7. Direct analogies
8. Analysis of the direct analogies
9. Application to the problem
10. Development of possible solutions

2. Breaking Mental Set and Shifting Perspectives

- The process of creation frequently involves a dramatic and usually instantaneous change in perception. Sometimes we all need a whack in the side of the head!
- Have students assume roles of other people, cultures, economies, genders, etc.

What if items were invisible?



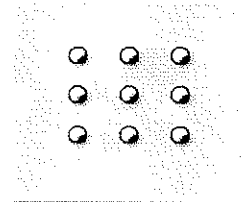


2. Breaking Mental Set and Shifting Perspectives

- Word games; Which one is different; Nine dot problem; Flying Pig; Concealed colors.
- Analogies, Synectics, Breaking Set, Imagery, Aesthetics, etc.



The 9 Dots: Draw four continuous straight lines, connecting all the dots without lifting your pencil from the paper.



The Search is on!
 Minority Report becomes reality (computer interface)
<http://youtube.com/watch?v=PLhMVNdplJc>
 reactable: basic demo #1 (square objects are sound generators)
<http://youtube.com/watch?v=0h-RhyopUmc>

3. Webbing



Directions: write the topic in the center and link closely related ideas or questions in the first ring of ideas. As new ideas are suggested, they are connected by a line to the related item or items.

3. Graphic Organizers and Webbing

Webbing can be used to determine:

- (1) all the possible directions and activities a student or class can explore as a result of interest in a specific topic or subject
- (2) all that is presently known, and
- (3) knowledge interrelationships.

This technique expands awareness for relating, integrating, and organizing brainstormed ideas.

3. Graphic Organizers and Webbing

a. Part I: What is creativity, critical thinking, cooperative learning?

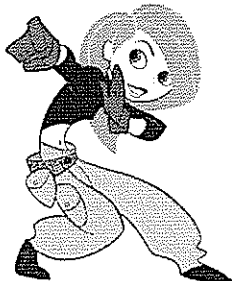
b. Part II: What is active learning (i.e., students:)

(discover, drawn upon, break free from, use, take ownership, talk, write, relate)

4. Just Suppose or What If

- Imagine a situation or scenario and reflect on the consequences.
- "Just suppose you have six weeks of paid professional development each summer for workshops or classes like this, what would teaching be like? What would learning be like?"

Just suppose you were a born leader, driven to excel, loved challenges, perfectionist
Your motto "I can do anything"



5. Creativity Awareness: Creativity Scales

- Self-awareness of creative traits is important in promoting creativity.
- Rate yourself for creativity. What is creativity here? How did you do?



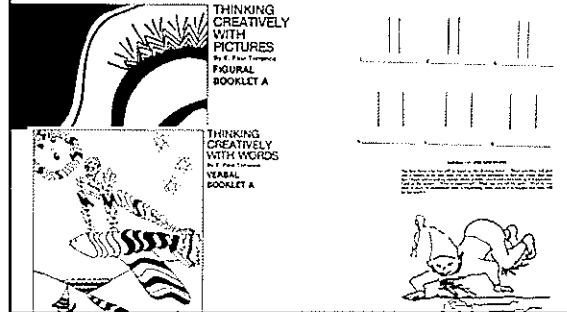
5. Creativity Awareness: Creativity Models

von Oech's

- Explorer
- Artist
- Judge
- Warrior



Creativity Tests?



Creative Behavior Inventory

0 1 2 3-4 5-6 7+

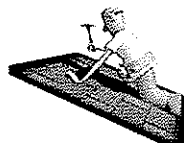
1. Received an award for acting.
2. Worked as an editor for a school or university literary publication.
3. Worked as an editor for a newspaper or similar organization.
4. Painted an original picture.
5. Designed and made your own greeting card.
6. Wrote poems (excluding school or university work).

Gough Personality Scale

- ___+___ Capable ___-___ Honest
- ___-___ Artificial ___+___ Intelligent
- ___+___ Clever ___-___ Well-mannered
- ___-___ Cautious ___+___ Wide interests
- ___+___ Confident ___+___ Inventive
- ___+___ Egotistical ___+___ Original
- ___-___ Commonplace ___-___ Narrow interests
- ___+___ Humorous ___+___ Reflective

6. Creative Dramatics, Improvisation

- Biggest/smallest thing;
Holding up the roof;
Favorite animal; Mirror
effect; Imagine
taste/smell...



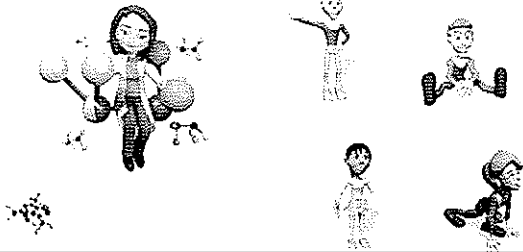
6. Creative Dramatics, Improvisation

More Creative Dramatics (Davis book)

- Imagine taste/smell... Ice Cubes, Puppets, Mirror effect, Ridiculous Poses, Favorite animal, People Machines, Invisible Balls.
- Imagine hear, touch, smell, tastes, stiffest/most rubbery, Angriest/happiest.



Creative Dramatics



7. Creative Writing or Story Telling

a. Tell a Tall Tale:

- One person starts a story and everyone adds something to it. You might throw a ball to the person who is to add to it or the instructor might decide or the next person could just jump in. Could be done via e-mail.



7. Creative Writing or Story Telling

b. Forced Wrap Arounds:

- One person tells a story and it is repeated until it gets through a group or classroom (teaches generative and constructive psychology principles)

c. Object Obituary:

- Write a fictional obituary for some object that you own or were close to.



The Mirror has Two Faces (Jeff Bridges & Barbara Streisand)



Wikis in Plain English
<http://youtube.com/watch?v=-dnL00TdmLY>
68,276 since May 29, 2007



A few more creative YouTubes

- A Fair(y) Use Tale
- http://youtube.com/watch?v=CJn_jC4FNDo
- Did You know; Shift Happens – Globalization; Information Age
- <http://youtube.com/watch?v=ljbI-363A2Q>
- Philips: Drag & Draw Technology (write on walls) (Dijital Boyama)
- http://youtube.com/watch?v=b146_atvG4g
- Korean madness
- <http://youtube.com/watch?v=R4cQ3BoHFas>

8. Wet Ink or Freewriting

Writing without reflecting or lifting your pen for a set period of time.

- Just imagine: imagine you have created a highly active teaching situation for early childhood...What do you see? Can students wonder, question, speculate, take risks, actively listen, withhold judgment??? How is creativity fostered here? Describe environment. Physically, mentally, emotionally, etc...



9. Brainstorming

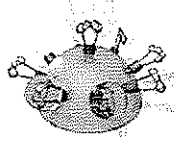


is to solve a problem, issue, or concern. Here more the wilder the thinking or ideas is encouraged. However, there is no evaluation of ideas allowed.



9. Brainstorming

- For example, How can we increase the use of active learning ideas in college settings?



10. Reverse Brainstorming

- Generating ideas to solve the reverse of a particular problem, issue, situation, or concern. Once again, more is better and the wilder the better. The hitchhiking or piggybacking as well as combination of ideas is encouraged. However, there is no evaluation of ideas allowed.



10. Reverse Brainstorming

- For example, How can we decrease the use of active learning ideas in college settings?



Extra #1: Phillips 66 (or Buzz Groups)

- Assign topic (e.g., review readings for this week).
- Students work in groups of 6 for 6 minutes on a particular problem.
- After 6 minutes, stop discussion.
- Share with class.



Extra #2. One Stray-Three Stay

- Give a task to small groups of students.
- Assign one person as spy or pirate to see the answers of other students (one stray-three stay method) and share with group.



Extra #3. One Stay-Three Stray



- Group assigns one person from their group to stay behind and share product or ideas with others who visit their poster or station (one stay-three stray method).



Extra #4. Stand and Share

1. Present a question.
2. When know the answer, stand up to indicate to the instructor that you have an answer.
3. Wait until all are standing.
4. Call on one at a time.
5. When you give an answer or hear you answer given, you can sit down (unless you have an additional answer).

What have you learned so far?

- One Stray-Three Stay--Buzz Groups--Roundtable.



11. Attribute Listing, Modification, and Transformation

- a. Attribute Webbing/Listing: "XYZ" shapes, colors, sizes, purpose, numbering.
- b. Attribute Modification: "XYZ"--after listing attributes, think of ways to improve each.
- c. Alternative Uses: Uses for "XYZ" for this class or for teaching in general.
(find the second best or third best suggestion)

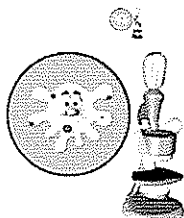


11. Attribute Listing, Modification, and Transformation

- d. Attribute Transferring: "XYZ"--transfer ideas from one context to the next.
(with idea spurring questions: What else is this like? What have others done? What else is this like? What could we copy? What has worked before?)
(What can we borrow from a carnival, funeral parlor, track meet, wild west)

12. Idea Spurring Questions

- how can we:
 - MAXimize,
 - MAGnify,
 - arrangeRE,
 - combine-adapt,
 - subtutesti,
 - EEEXXAAGGGERRRRATTEE



13. International Future Problem Solving Competitions (USA, Hong Kong, Japan, Korea, Russia, etc.)

- Propose futuristic problem (e.g., space junk, pandemics, body enhancements, caring for elders, child labor).
- Have students solve in teams.
- Present skit, scenario, etc. to class or at competition.



14. Checkerboarding (done in Lone Ranger series)

- Analyze problems with 2 key variables or components.
- Write features of one item down the horizontal column (plots).
- Write features of another item down the vertical (characters).
- Randomly check off items and a new create story.



15. Morphological Synthesis

- Write features of one item down the horizontal column.
- Write features of another item down the vertical.
- Look at intersection for new item or concept.

15. Morphological Synthesis

Creative Strategies	Critical Strategies					
	1.	2.	3.	4.	5.	6.
1.						
2.						
3.						
4.						
5.						
6.						

16. Creative Role Play (case discussion with 27 roles)

- Pose a problem (how can we increase student creativity in the early childhood program at OU?)
- Assign roles
- Hold forum





17. Visualization, Imagination!

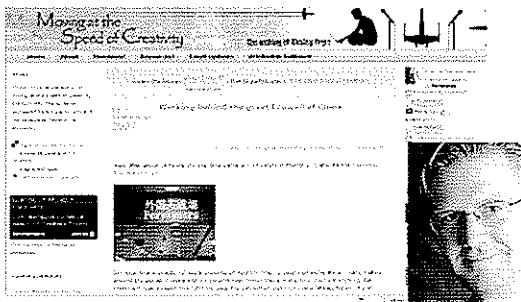
One of Michelle Tanner's deaf students at Gerald Wright Elementary holds an iPod and watches a video of her signing the week's vocabulary words.

Classrooms go high-tech. By Erin Stewart, Deseret Morning News, March 6, 2007

18. Simulations, Creativity License Cards, Six Hats from De Bono, 1985

- White Hat: Data, facts, figures, info (neutral)
- Red Hat: Feelings, emotions, intuition, rage...
- Yellow Hat: Positive, sunshine, optimistic
- Black Hat: Logical, negative, judgmental, gloomy
- Green Hat: New ideas, creativity, growth
- Blue Hat: Controls thinking process & organization

19. Web Safaris, Explorations, and Web Link Suggestions (e.g., Website: "Moving at the Speed of Creativity")



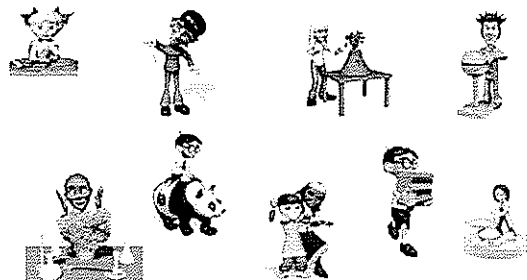
Moving at the Speed of Creativity

"The true educator is member of a sacred profession. Learning is a journey which never ends. Every day true teachers make positive differences in the lives of other learners through their words and actions. This blog exists to document my own journey of personal growth, as well as facilitate collaborative thinking with others."

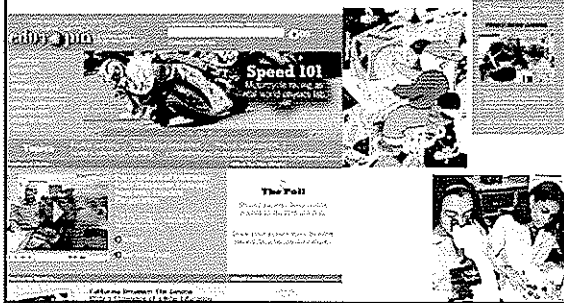
Moving at the Speed of Creativity

"I believe each moment of every day is a gift, and it behooves us to be intentional about the ways we choose to spend our limited heartbeats. I'm thrilled to have opportunities to exchange thoughts with you via this magical network which connects us. Let's continue to make the world a better place one conversation at a time."

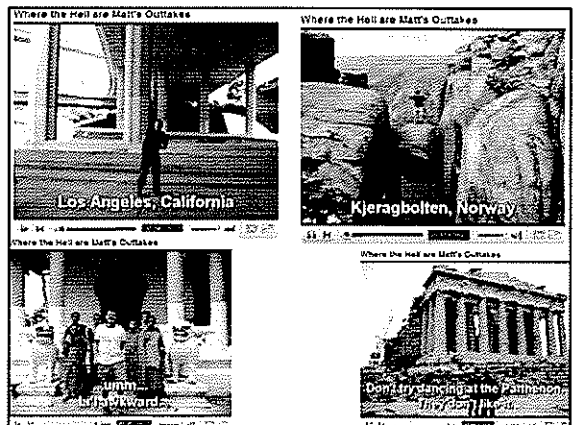
20. Problem and Product-Based Learning (Some creative tasks involve many things!!!)

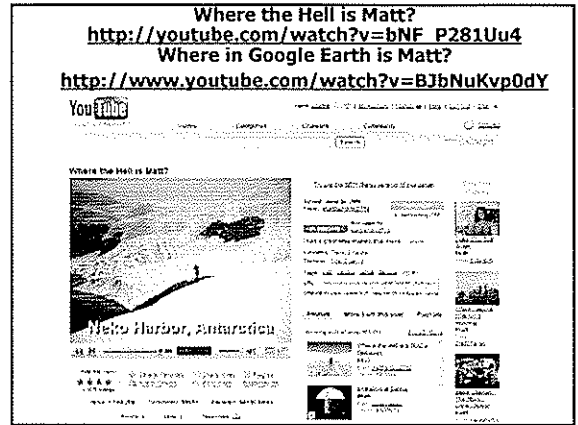


George Lucas Education Foundation (GLEF)
<http://www.edutopia.org/index.php>



20. Problem and Product-Based Learning (Some creative tasks involve many things!!!)





Computers for Peace By Grace Rubenstein GLEF

A black and white portrait of a man in a suit and tie is on the left. To the right, there are several images of laptops in various states: one open, one closed, and one being held by a hand.

\$100 Laptop

Fold-up antennas let XO laptops link with others up to 1/3 of a mile away and share an Internet connection.

Screen swivels, closes, or folds flat for use as tablet, e-book, or game machine.

Using a Wi-Fi connection, groups of children can do activities together, such as share photos or compose and perform music.

Super high definition, 7.5 in. diagonal screen is easily visible in daylight; designed for outdoor use.

Uses 2 watts of power (1/10th average laptop); manually rechargeable.

Rugged keyboard resists dust and dirt and will be configured for the local language.


OLPC in Nigeria: School Galadima provided School Galadima in March 2007 with an XO laptop for each child in Primary 4, 5 and 6 and also for each member of the staff.

A large photograph shows a classroom full of children sitting at desks, many with laptops open. Below this are three smaller photographs showing children interacting with their laptops in different classroom settings.


Uruguay youngsters receive batch of OLPC XO's May 14th 2007 3:34PM by Darren Murph

A collage of images shows children in a classroom receiving and using laptops. A central portrait of Robert Kozma is included, with his name written below it.


OLPC in Nigeria: School Galadima
 provided School Galadima in March 2007 with an XO laptop for each child in Primary 4, 5 and 6 and also for each member of the staff.





Drawing of his future house by a primary 5 student who wants to be a banker.




Teachers also do artistic work on their XO laptops, like this teacher's local scene.




Simple as it may seem, this graph is the result of a complex process: primary 6 worked together, made a census of themselves and of the whole school, and understood both population and mathematical graphing concepts.


Nakaseke community radio station



Nakaseke village telecenter




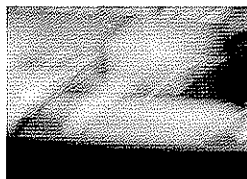
Nigerian school OLPC XO usage



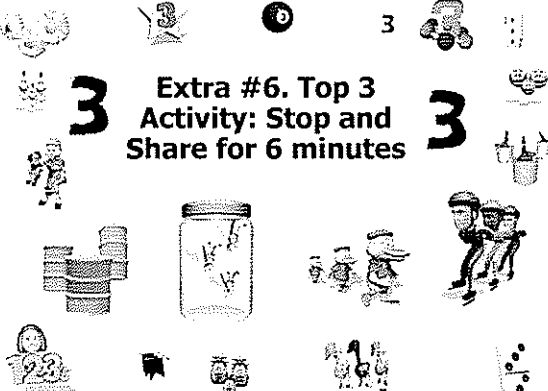
One Laptop Per Child News
<http://www.olpcnews.com/>

Extra #5. Solids and Fuzzies
 What have you learned today?


- Solid and Fuzzy in groups of four
- One Stray-Three Stay--Buzz Groups--Roundtable.

Extra #6. Top 3 Activity: Stop and Share for 6 minutes

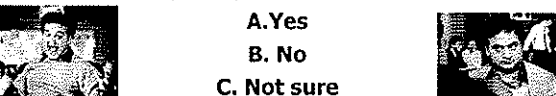


It's Over...



Poll: Ok, then, who wants more???

A. Yes
 B. No
 C. Not sure



Sorry it is the End!!!