

School Year 2013 – 2014 ENGAGING IN GROWTH





The Thinker in Action! Creating a Culture of Thinking in our Classrooms





Who are we?





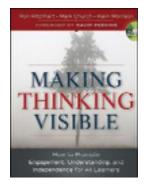
Our journey... Your journey?

- Where we're coming from
- How we're getting there
- What you'll see along the way

"...children grow into the intellectual life around them." (Vygotsky, 1978)



Examples of Thinking Routines



http://www.pz.harvard.edu/vt/



Menu Bar



Purpose and Guals

Vasible Thinking is a firstble and systematic research-based approach to integrating the development of stadent' thinking with content learning aroun subject matters. An extension and adaptible collection of practices, Vasible Thinking has a similar goal on the are hand, to cubricat attached thinking dispositions, and (on the other, to deepen content learning By thinking dispositions, or mean cutoxity, concerns for turb and and/standing a centric minder, nor just bring diffield but also alter to thinking and learning opportunities and asympt to take them.

Who is it for?

Visible Thinking is for trachers, where I radius and administrators in $K \sim 12$ where where want to encourage the development of a culture of thinking in their classrooms and schools.

Key Features and Practices

At the cose of Vanite Thanking we processes that help make thanking vanitie. Dividing function incoder goods instances (though processes and eccourage active processing. They are short, save to brain miss stringens that estend and deepes indexit funking and become part of the thins: of everyther channess in the Dividing Jonebu are subaccessable concepts capturing namedity occurring goals, storings on university that offset accessable concepts capturing namedity occurring goals, storings on university that offset accessable is modules on the same interaction of the stories and Centrotor — are protented as modules on this same. These are associated foreigns around the ideal and writing with module them are activities that they deepen storedity in concept around the ideal.

A key forture of the Visibile Thinking approach is the Teacher Body Group as described in the followed/Kide Culture of Thinking section. In these propaga trachers written on interesting an ideal. Bocumentation, symmetric by statewise when using restinces or incretinguing an ideal. Bocumentation such as lists, maps, charta, disguma, and variables to record homeour audition gives an they think through an issue. In shall groups teachers use the structured concretoristic of a protocol to look at and reflect on thinking groups in shall out out.

What You Will Find on the Site

This sile provides a convenient way to learn shout Visible Thinking as well as thereash, descriptions of the black, reactines and activities that units descripted from execution in R -12 schools.

The six sections of this site are: Visible Thinking in Artice; Gering Started; Thinking Review; Thinking Heals; Educal Web Colline of Thinking; Additional Resources. Each of the illustrated burses on the left margin of this page links to one of the areas. You can also click on the grees shart arow to easi the size.



What Does Thinking Look Like in the Classroom?

- Everyone looks different in their "Thinking Cap"!
- "Healthy Buzz" or "Silent Thinker"?
- Time to think
- Think, Pair, Share®

"Teachers who are successful at promoting students' thinking tend to develop, adapt, and make use of specific routines to scaffold and support students' thinking ."



MYST

Me: How do I make my own thinking visible?

YOU: How do I make my students' thinking visible?

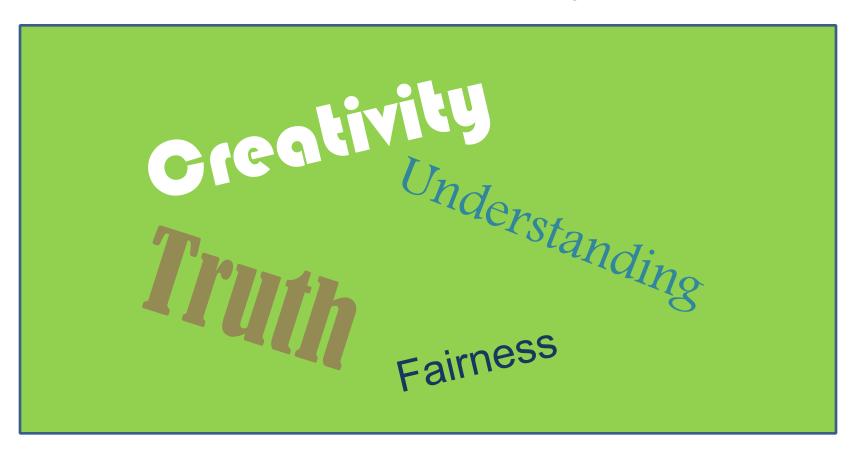
Space: How is space in the classroom organized to help facilitate thinking?

Time: How do I give thinking time? How does thinking develop over time?

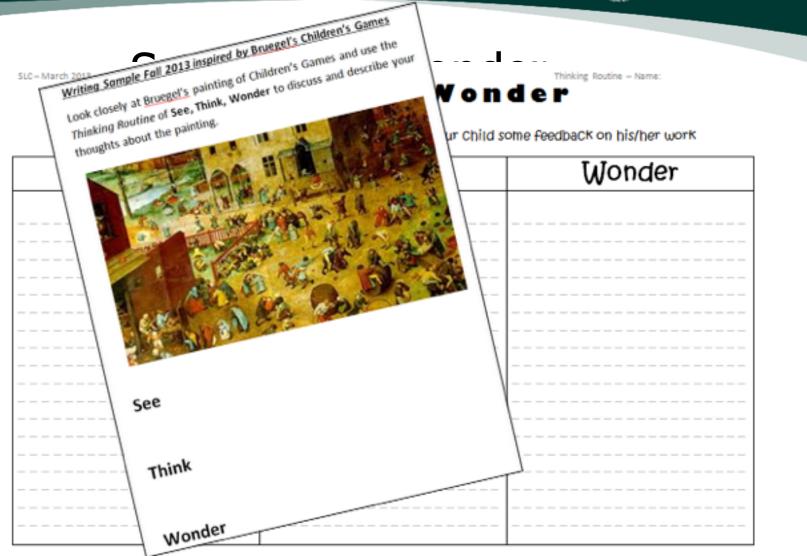
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Some tools for you









Hear, Think, Wonder⁵

- Use what you can even if it is not much
- He never gave up despite all his challenges
- He has a good family but is starving
- How hard was it?
- How did he survive with so little food and drink?
- Would I have the courage to do it?



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Headlines[®]

- Asthma in the Air
- Global Warming Affects All
- Health in Chocolate? Who knew?
- Diabetes can devastate people emotionally
- Euro Crisis Abated but Millions Still in Poverty
- Emotions How Do You Perceive the World?





PAGE 2

HACKERS TAKING OVER THE CYBER-WORLD

Did you know that a hacker can crack your email password in less than 2 minutes? Did you know that over 600.000 Facebook profiles get hacked every day?

If you want to learn more come visit Antoni's Awsome Hacking Booth!

ORIGAMI TO IMPROVE YOUR HEALTH AND BRAIN

Origami is a Japanese word for paper folding but did you know that origami has some health and brain benefits? Come into the world of origami at Akanksha Bansal's Booth.



BONES AS MUSICAL INSTRUMENTS

Have you heard of Indian music? Well a long time ago sticks and bones were used as musical instruments, and hollow bones were made as flutes and recorders! Creepy, I know!

Come and visit Archita Gupta's booth and you will enter the world of Indian music!

VIDEOGAMES ARE A SCAPEGOAT FOR NU-MEROUS CRIMES AND ROBBERIES

Yes, an innocent videogame may change our brain both in a good way and in a bad way; crimes or being the best in the class, robberies or living a happy life. Why are they bad for you? How do you know? What are the positive sides?

If you want to know come to Bernardo's booth and enter the world of videogames!

DON'T THINK IT, INK IT!

Printing... we do it all the time, but do we even notice that the stuff that comes out of the printer, ink, is disappearing? Is it because we wante so much, or is it that we need a little help with finding the solution to this problem?

Come visit Anna-Rosa's ink booth to find out what solutions are available, and much more about ink...

WHAT WOULD YOU DO FOR MONEY?

What drives people to steal, to risk their lives to get precious items? And if the urge gets the better of them what will they steal, and how? Learn about the gadgets police use, and how they work by coming to Abdulla's world of crime.

In the future there is a likelihood that more children will become Third culture kids. This is because of glob-

alisation and social media. Are there advantages and disadvantages? Can it affect your personality? Come to David Lansman's booth to learn about Third Culture Kids.

PAGE 3

HOW CAN WE USE SNAKE VENOM TO STOP DISEASES?

Snakes have been upon us for billions of years and I would like to tell you about them so slither up to Alex Chappelle's booth

SEEING JUMBLED UP WORDS

Dyslexia: a special learning disability. You will never see words correctly. They will always be jumbled up, but the good news is you will always find strategies to help you. If you want to discover more, go to Blanca Mosquera's booth and you will find out.

THIRD CULTURE KIDS





$\frac{\mathbb{CSI}^{\mathbb{R}}}{\mathbb{COIor Connect}^{5}}$



Color

Connection

When I was little I used to talk to my stuffed animals before I went to bed.



I tried to draw Orlynk Botit aditof toredout back



Brain Replay⁵





I used to think ... now I think[®]

I used to worry about moving the decimal point in the right direction and I always felt lucky when I got the answer is right. Now , I know when I am right. (Anna, 10) I used to think that multiplying or dividing by 100 was all about adding or taking away zeros. Now I know that the number is getting 100 times bigger or smaller. (Kevin, 10)

I used to think division was subtraction, now I think division is splitting into groups. (Robin, 9)



More understanding routines...





What makes you say that?





Reporter's Notebook

Current events – Evaluating media sources

- What facts are you sure about?
- Which ones do you need to know more?
- Try to capture the feelings you notice or imagine

		Clear	Need to Check			
5	Facts & Events	 The region is without power and without electricity The airport is closed 	 15000 families without a home The first cases of diphtheria have been recorded 			
Ď	Thoughts & Feelings	 The children are frightened People are afraid of the high risk of epidemic 	 The president does care about the homeless people 			



Conflict resolution

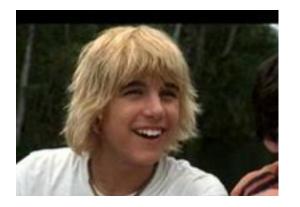
- What was the conflict about?
- Point of view of each participant
- Best judgment based on situation

Fairness ideal



Circle of Viewpoints

I am thinking of the idea of Urban Development from Mullet Fingers' point of view



I personally think that developing this site for a pancake house is wrong because it is ruining th owl's habitat. A question I have from this view point is 'How can, they d tats knowing that the owls are in danger?' 'Does an owl have a price?'



Fairness ideal



Question Circles⁵

Looking at perspectives



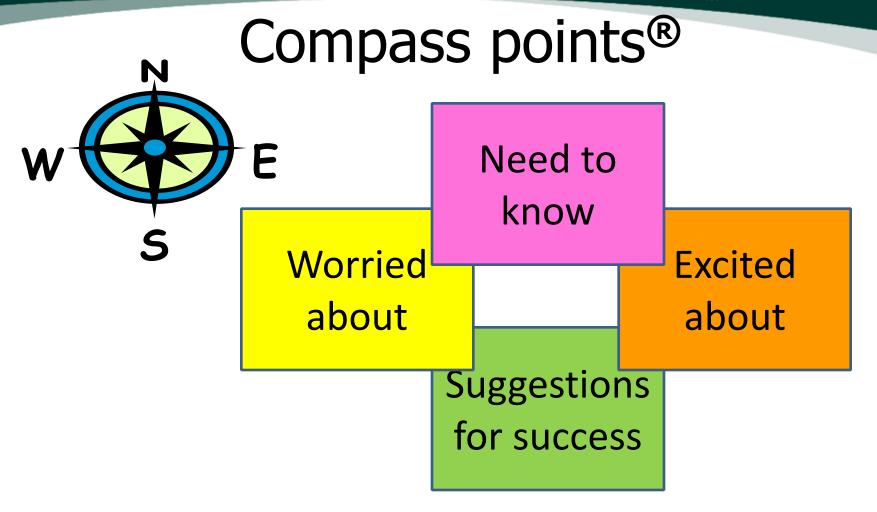


Truth/Fairness ideal



- What is it?
- What are the factors that contribute to over-population?
- Why are more animals dying and more people being born?
- How could we reduce the amount of people?
- Will we run out of food to feed everybody?
- Why are there more people than there were back then?
- How one stions about Over-Population
- How is it affecting our world?
- What will happen?
- In how long/are there to many people on earth?
- Why is the over-population a big problem?
- If we had two earths, would both have too many people on them?
- Will poorer people be annoyed if the world over-populates?
- Will the world over-populate?
- Do some people not care if the world will over-populate?





Truth ideal

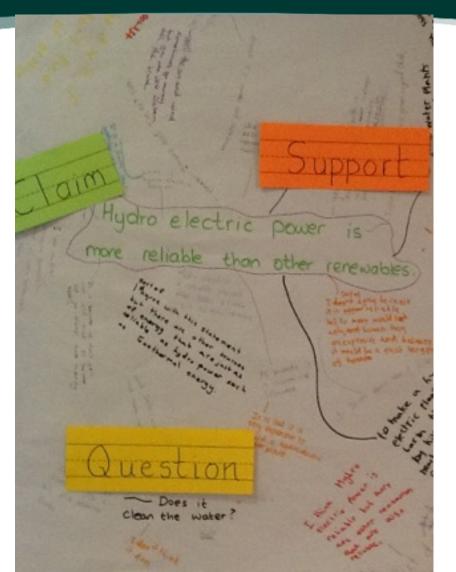


Share your thoughts





R



Claim Support Question

Truth ideal



True for Who?®

Possible issues to discuss:

- School food
- Uniform
- Fur coats
- Wind turbines
- Staff issues

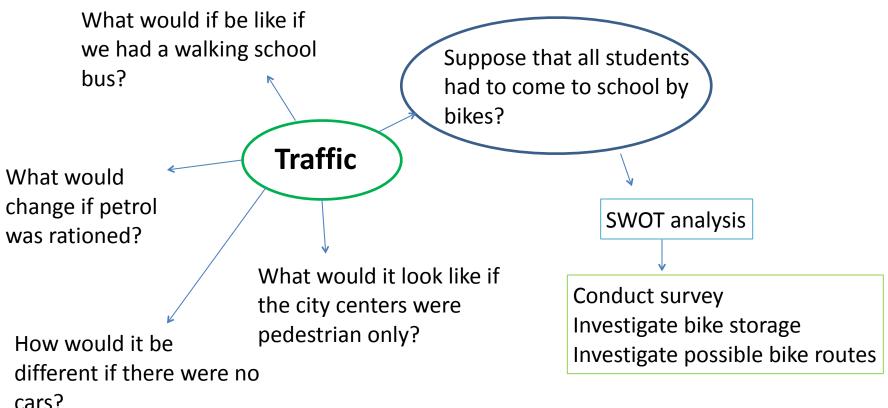
- Identify the different perspectives (company building/developing, environmentalists, villagers, government, politicians...)
- Dramatize each role (individually or in groups) and present a stance
- Stand back and evaluate reflect on perspectives presented. Come to a conclusion (argument) and what are the new questions, what solutions could be suggested to reach a consensus

Truth ideal

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Creativity ideal

Formative Assessment 4-10-2013

LO: To use the thinking routing 'Creative Comparisons' to show my understanding

Name: CHARLE

If this wind turbine were an animal, it would be a elephont because It's very tall like an elephant and the blades and they are also like the trutk. If this wind turbine were an city, it would be a Scotland because t know as a fact that Scotland is very windy and they have a lot of wird turking

If this wind turbine were a what would it be?



If this wind turbine were a plant, it would be a literat because it loops use a word mi and its origin was wi Holland where they we Uheat

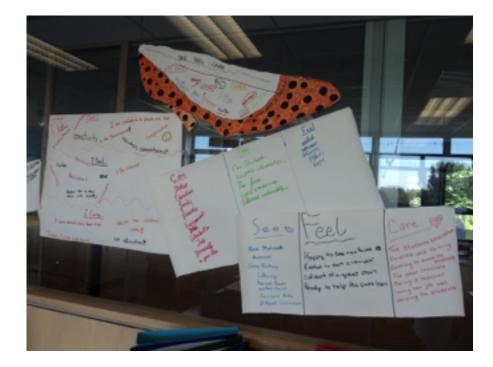
Extension

If this wind turbine were a _____ it would be a ______ because it is a Sustainable Source of energy Which puns on Sustainable energy



R

Step Inside Perceive-Know about-Care about



Creativity ideal



Selecting the thinking routines

key thinking ideals

fairness truth understanding

creativity

types of thinking/ key thinking moves

looking closely reasoning building expectations

the most commonly used in different subject areas or levels

MTV Arc of Learning Organizer

Context		Name of Team: Grade 5 Grade level/Subject area: Grade 5 UOI How the World Works Content Area: Science							
<u>Unders</u>				2: :Light travels in a straight line and lenses, water or prisms show that light beams can be bent (refract)				3 Through an understanding of its properties, light can be controlled to achieve a particular purpose.	
What Students Will Be Doing:									
							Lesson 3: Analyze how a popular game app uses the properties of light		
	Thinking Routines	Art/Artifacts/P				(ultural F	orces	Notes
Lesson 1 UG#			questions generated by students. These question should be posted in a v location as prompts to inquiries.	r the ons visible further				The 3 pictures provide opportunities to address light separation, light traveling in a straight line, opaque (shadows) and translucent materials.	
2 UC	Circle of <u>View points</u> Faimess – Is the use of periscope of a periscope respectful of all parties? Try – Think – Wonder	a p	hoto	they imagine is insid A printed sketch to c	le. compare.				
6		. mar and the second		series of inquiries in related topics such a	ito light is moon				
	3 Lesson 1 2 UG# UG# UG#	Understanding Goals: Lesson 1: Observe natural, every of and ask questions Thinking Routines Creative questions Creative questions Son 1: Observe natural, every of and ask questions Creative questions Creative questions Son 1: Observe natural, every of and ask questions Creative questions Creative questions Son 1: Observe natural, every of a periscope of a periscope of a periscope respectful of all parties? Try - Think - Wonder	Grade level/Subject area: Grade level/Subject area: Understanding Goals: 1 Light reacts in diffe according to the matter contact with Lesson 1: Observe natural, every day effects of light and ask questions Thinking Routines Art/ArtifactsP Creative questions Image: Sign of the second secon	Context: Grade level/Subject area: Grade 5 UOI How Understanding Goals: 1 Light reacts in different ways according to the matter it comes into contact with What Lesson 1: Observe natural, every day effects of light and aak questions Creative questions Creative questions Creative questions Circle of View points: Faimess – Is the use of periscope of a periscope respectful of all parties? Try – Think – Wonder - S	Grade level Subject area: Grade 5 UOI How the World Works Understanding Coals: 1 Light reacts in different ways according to the matter it comes into contact with 2::Light travels lenses, water or beams can be beams and beams are or beams can be beams and beams are or beams can be beams are or beams are or beams can be beams are or beams are or beams are or beams can be beams are or beams are beams are or beams are or beams are beams are beams are or beams are beams are or beams are beams are beams are beams are beams are or beams are	Grade level/Subject area: Grade 5 UOI How the World Works Length off Content A Understanding Coals: 1 Light reacts in different ways according to the matter it comes into contact with 2::Light travels in a straig lenses, water or prisms sh beams can be bent (refract vith) What Students Will Be Doing: Lenson 1: Observe natural, every day effects of light and ask questions Lenson 2: Observe a periscope, experiment with i explain how it is made with a labeled sketch Creative questions Occumentation Creative questions Students' Students' Stateshes of what they imagine is inside periscope of a periscope respectful of all parties? Try – Think – Wonder - Students' sketches of will lead to a series of number - Think-Puzzle - Explore	Grade level/Subject area: Grade 5 UOI How the Works Length of the Unit: Content Area: Scient Understanding Goals: 1 Light reacts in different ways according to the matter it comes into contact with 2: :Light travels in a straight line a lenses, water or prisms show that beams can be bent (refract) What Students Will Be Doing: Lesson 1: Observe natural, every day effects of light and ask questions Lesson 2: Observe a periscope, experiment with it and explain how it is made with a labeled sketch Observe questions Occumentation Occumentation <	Grade level/Subject area: Grade 5 UOI How the World Worls Length of the Unit: Content Area: Science Understanding Goals: 1 Light reacts in different ways according to the matter it comes into contact with 2::Light travels in a straight line and lenses, water or prisms show that light beams can be bent (refract) What Students Will Be Doing: Understanding Routines Lesson 2: Observe a periscope, experiment with it and explain how it is made with a labeled sketch Thinking Routines Art/Artifacts Provocations Documentation Cultural Fe Togo Circle of View points Art/Artifacts Provocations Documentation should be posted in a visible location as prompts to further inquiries. Students' sketsches.of what, they imagine is inside. A printed sketch to compare. Togo Think-Puzzle - Explore Think-Puzzle - Explore Image: Student - Stude	Grade level/Subject area: Grade 5 UOI How the Works Length of the Unit: Content Area: Science Understanding Coals: 1 Light reacts in different ways according to the matter it comes into contact with 2::Light travels in a straight line and lenses, water or prisms show that light schewe a public contact with 3 Through a properties, achieve a public contact with What Students Will Be Doing: Lesson 1: Observe natural, every day effects of light Lesson 2: Observe a periscope, experiment with it and explain how it is made with a labeled sketch Lesson 3: Acalyze how a properties of light Isson 2: Observe a periscope, experiment with it and explain how it is made with a labeled sketch Lesson 3: Acalyze how a properties of light Isson 2: Observe a periscope, experiment with it and explain how it is made with a labeled sketch Lesson 3: Acalyze how a properties of light Isson 2: Observe a periscope, experiment with it and explain how it is made with a labeled sketch Lesson 3: Acalyze how a properties of light Isson 2: Observe a periscope, experiment with it and explain how it is made with a labeled sketch Isson 2: Observe a periscope, experiment with it and explain how it is made with a labeled sketch Isson 2: Observe a periscope, experiment with it and the explain how it is made with a labeled sketch Isson 2: Thinking Circle of Mas

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Building.Blocks

Light reacts in different ways according to the matter it comes into contact with

How would the designs change if with the heat the water drops got smaller?



What would the pattern look like in the summer?

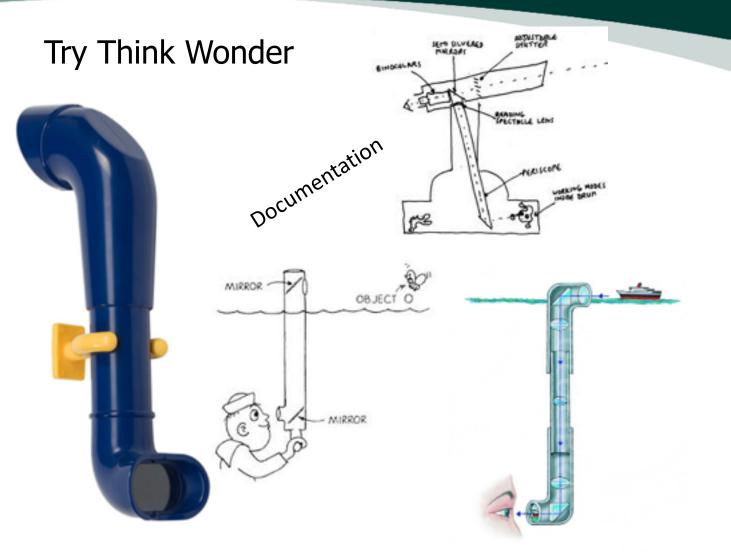
How would the pattern show if the ground was not covered in snow?

Could the art work be the reflection of the stained glass?

How could we make the stained glass window reflection sharper?



Light travels in a straight line and lenses, water or prisms show that light beams can be bent (refract)





Think Puzzle Explore[®]



What properties of light are used

in this ga	Through an	
	understanding	
	of its properties,	
What are	light can be	r
about?	controlled to	
What see	achieve a	t the
behaviour	particular	
	purpose.	

What important questions would you like to inquire about?



PMI® Edward de Bono

- **P = Plus** The good things about an idea why you like it
- *M = Minus* The bad things about an idea why you don't like it
- *I = Interest What you find interesting about an idea*



Minds On! Thinking for the Future











Have we given you something to think about? **O**&A



Think you!

Keri, Janie, Anne-Françoise



<u>References</u>

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Powell, W. & Kusuma-Powell, O. (2007). *Making the Difference: Differentiation in International Schools*. Office of Overseas School, US Department of States.

Ritchhart, R., Church, M. & Morrison, K. (2011). *Making Thinking Visible*. San Francisco, CA: Josey-Bass.

de Bono, E. (1982). *De Bono's Thinking Course.* Crown Publications. MTV Arc of Learning Organizer @2012 President and Fellows of Harvard College