

Minnesota eLearning Summit

Developing Creative Thinking Skills

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UNIVERSITY OF MINNESOTA

MORRIS



Creativity





Creativity

Outstanding creativity was considered the gift of the gods or spirits, not a human act.

Peterson & Seligman, 2004

Imagination is more important than knowledge

Albert Einstein



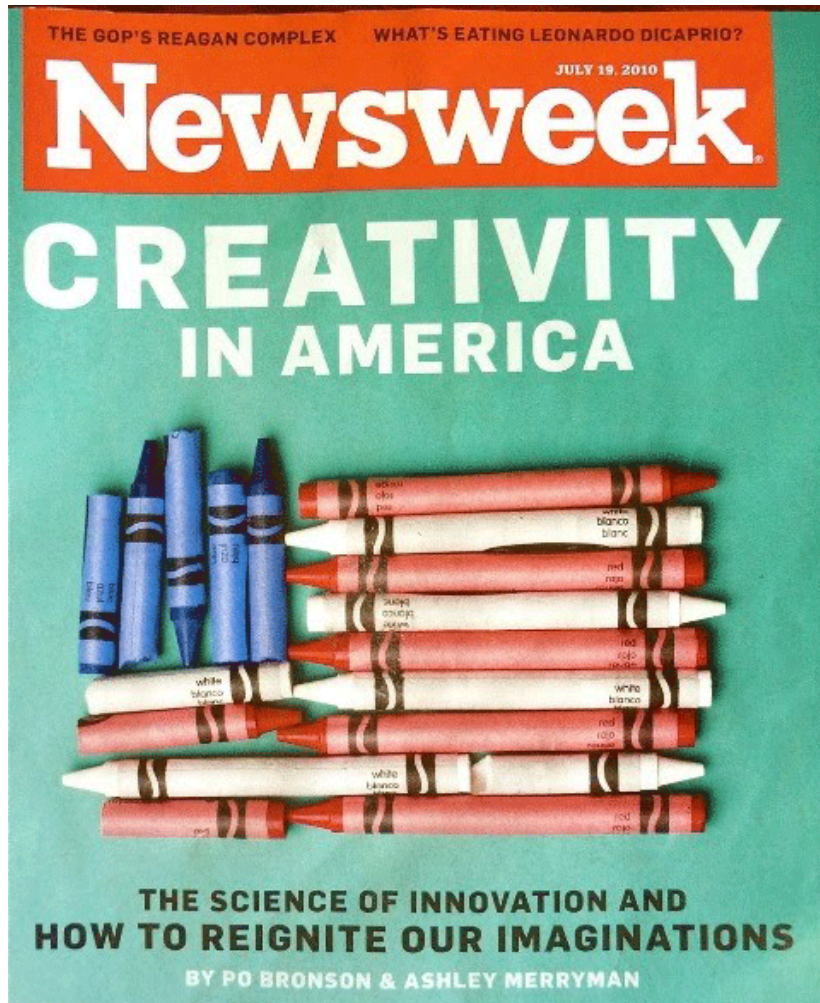
Creativity

- IBM: Creativity rated most valuable skill by executives. (2008)
- World Economic Forum: Creativity as essential core job skill. (2016)
- Bloomberg: Creativity desired and hard to find in applicants (2016)
- Research: Creativity is three times stronger an indicator of lifetime success than is intelligence.



Creativity

Current understandings, research



Since 1990, measured creativity has declined in American school children...

...while England, Denmark, Singapore, Taiwan, and China are changing their school curriculums to make kids more creative.

Defining Creativity

Novel: creative ideas are new, original, unique, rare.

Value: creative ideas are applicable, appropriate, useful or of value to individuals or society

In Context: how it is evaluated and compared, either totally or locally.

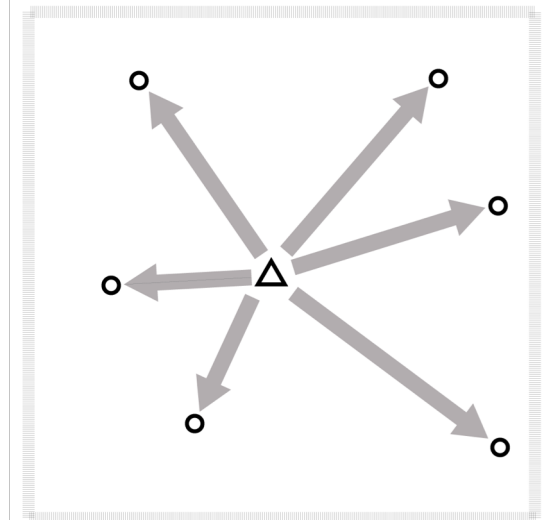
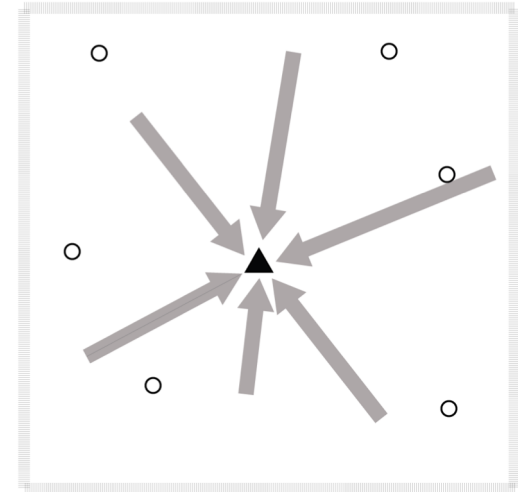


Creative Thinking

Two aspects of creative thinking:

Convergent thinking:
focusing on and improving a
singular idea

Divergent thinking:
generating multiple ideas and
concepts



"The best way to have a good idea is to have a lot of ideas and to throw the bad ones away."

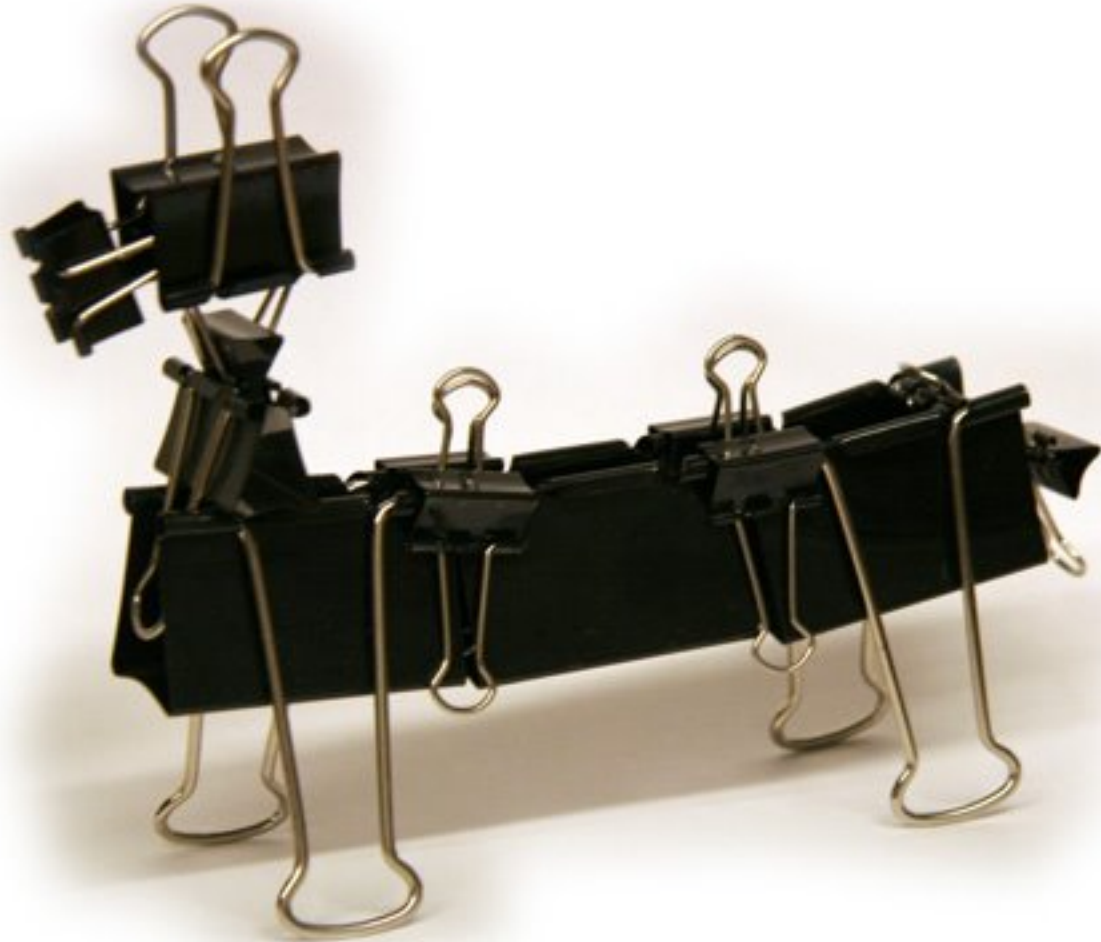
Linus Pauling



"If I have a thousand ideas
and only one turns out to be
good, I am satisfied."

Alfred Nobel





Evaluating Creativity

Fluency: number of ideas or answers to a given prompt

Originality: the rarity or uniqueness of answers

Flexibility: number of different types of answers

Elaboration: number of details added to any answer



How do I get
to be more
creative?

How do you get to
Carnegie Hall?



Practice, practice, practice.



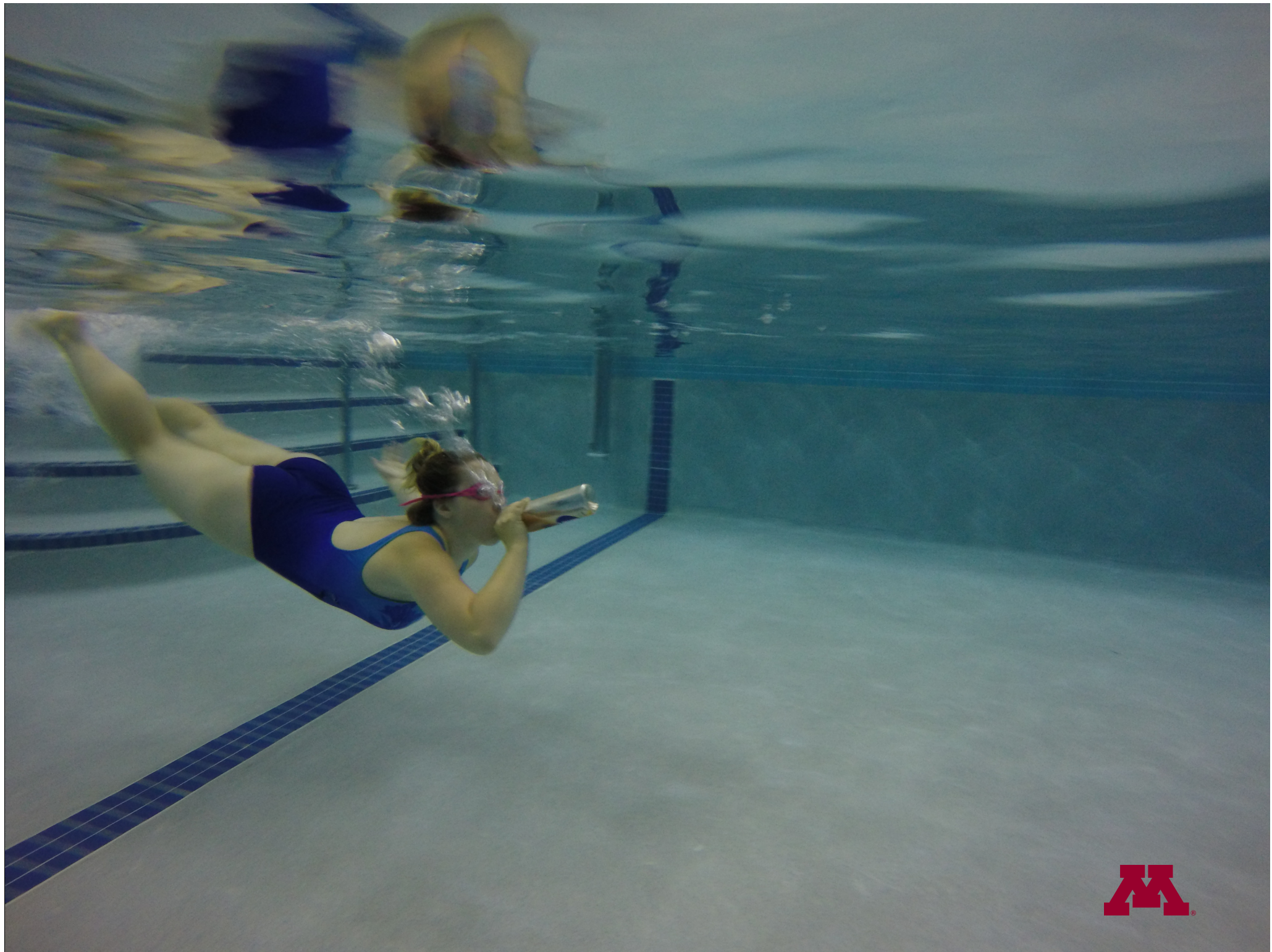
Examples

Doing Something Different







































Developing Creativity

Average Standardized Scores [mean=100, SD = 20]

	F2009	F2010	S2011	F2011	S2012	S2015	F2016
pre-test indexed	101.76	115.56	107.17	110.69	111.65	112.4	109.34
pre-percentile	53.51%	78.17%	64.00%	70.35%	71.99%	73.24%	70.35%
post-test indexed	129.35	129.67	129.25	128.01	130.05	132.8	128.67
post-percentile	92.89%	93.10%	92.82%	91.93%	93.35%	96.00%	91.93%
N	50	33	36	80	41	46	63



"In general, creativity is best nurtured in homes that provide many opportunities for intellectual, cultural, and aesthetic stimulation."

Peterson & Seligman, 2004



Live Creativity

Capture: always be able to record ideas, journal

Surroundings: should be dynamic and divergent

Challenge: tackle tough problems

Broadening: diversify and expand knowledge

Daydream: engaged, focused though w/o technology



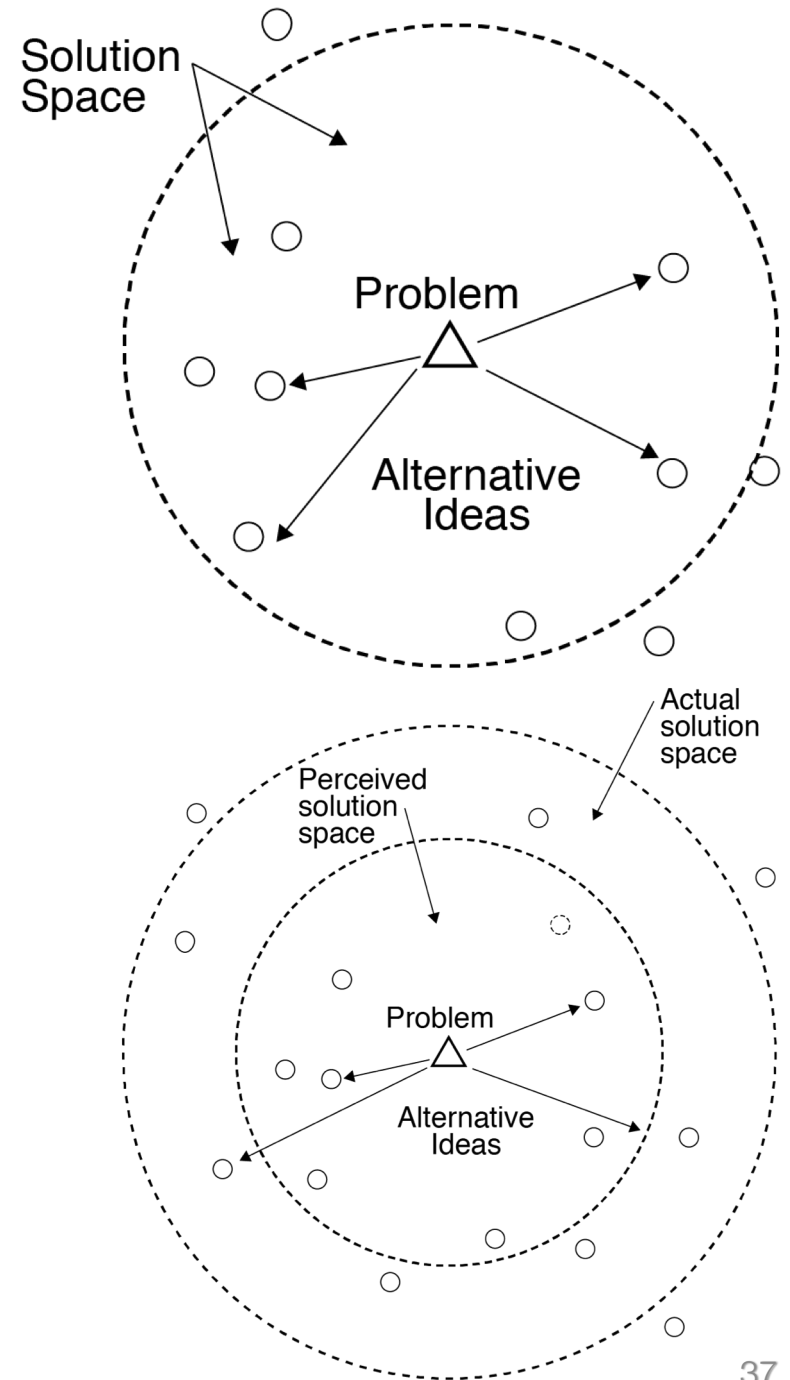
Paradigm Shift

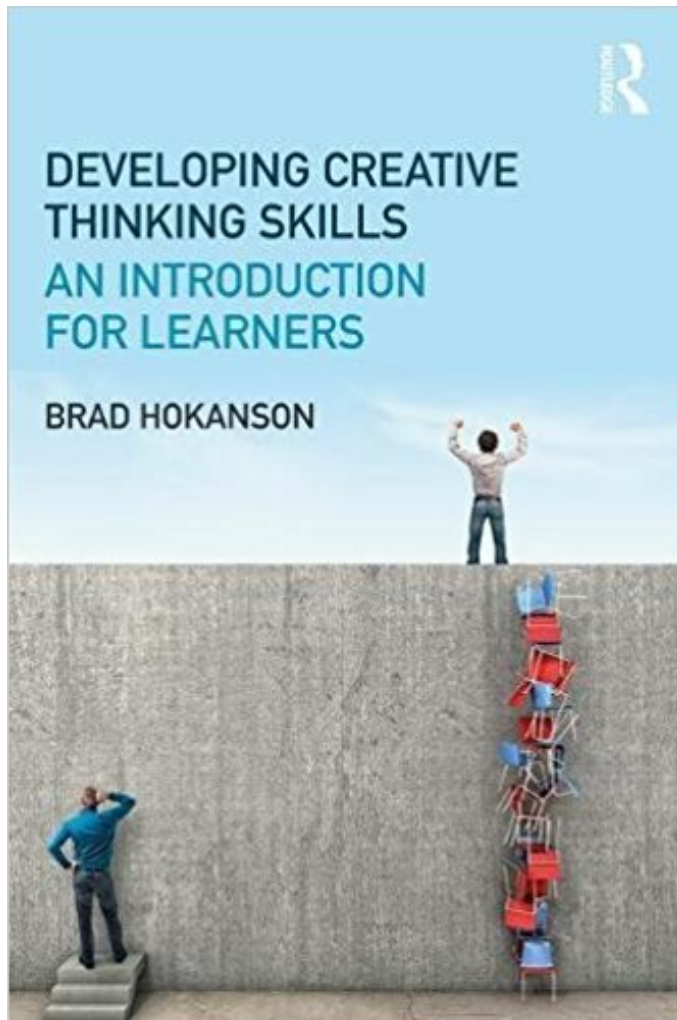
Changing our thinking:

Always developing multiple ideas

Original ideas occurring when more than ten ideas are developed.

Solution space:
an area of possible answers
"outside the box"





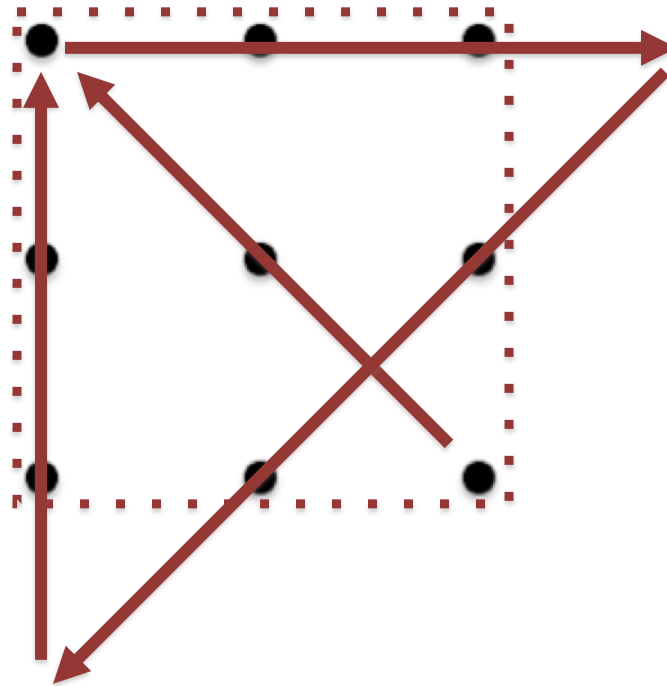
Svenska Sällskapet

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Brad Hokanson
22 March 2018

Outside the box

A cliché to describe creativity...



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