

The Depth & Complexity Experience: Day 2

with Lisa Van Gemert | giftedguru.com

presented by JTaylorEducation.com



PART 1: ONBOARDING

Meta Ideas:

1. Must share _____ behind framework first, not just start _____ pictures.
2. Start with only one or two _____ at a time. Slowly unroll, like a flower _____.
3. Move from _____ content to _____, rather than new _____ + new content.

Meta Idea One

Method 1: The idea of icons (from Day 1)

PowerPoint you can use to intro to students (optional) bit.ly/intro-icons.

Method 2: A learning language

What are some terms in your discipline?

Method 3: Introduce yourself with icons | Use frames

Meta Idea Two

What could I use for a Rules example from my discipline?

Meta Idea Three

What is something students know well that you could layer an element of Depth & Complexity onto?

Onboard students to each element.

PART 2: CONTENT IMPERATIVES

Why use them? Two reasons:

- 1.
- 2.

Origin: The _____ or cause

Convergence: Coming together of _____ or _____

Contribution: Action or object that brings _____ or advancement

Paradox: A thing that contains _____ qualities; incongruity; oxymoron

Parallel: A thing that is _____ or comparable to another; something that _____ at same time, way, or place



ORIGIN

Pairs Nicely With:

- Multiple Perspectives
- Details
- Trends
- Over Time

Origin Word Search

B N H G G L A U L O H R N M D F G P M D
 L B Z G N K Y R Z K E L B V C V V W J Z
 C B K H E E B E Z I M A G N K R V F E B
 X P M X S O U R C E F P D F Q S B B J X
 H S A J P Y J K X D H V T T A Y H B X L
 R Q G G U Y Q K Y W C A T A L Y S T D B
 V D R I D P P E Y C O E K M A K Q O S V
 D H B I X F Y Q B X V B Y P Q H R O O T
 E O U N Y J V O U E B B E L O D I U G D
 R P L U G A I K D Y G I V J G S D H E F
 I Y A V R N V K I W X I E F I I G A R B
 V D R N X C C I X B C Q N L V S D A M E
 A B D C J M T Y B A T H R N P A O L I P
 T Q D A F Y E E U B O T W T I B A O N T
 I L C K R Q J S X P C R W U O N C T A Y
 O T Z Y E G A S K I M P U Z J N G P T U
 N S C W L T N K J G S K S A X J Y I I Z
 Q G A J I S B N Q P S B N I Z T W T O C
 G X K O G C Q X C L Y M D S A U V E N R
 E H N I X R K W T Y F O U N D A T I O N

beginning
catalyst

root
causation

source
germination

foundation
derivation

basis

Origins asks:

How did this begin?

What was the cause, origin, impetus, or stimulus?

What are elements of my content worth exploring through this lens?



Convergence

Pairs Nicely With:

- Patterns
- Details
- Big Idea
- Over Time

MERGING | CONCURRENCE | INTERSECTION | MEETING POINTS | JOINING |
UNION | CONJUNCTION | COMING TOGETHER

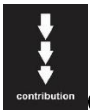
Convergence asks:

How did all of this come together?

What were the meeting points?

How did they merge? Successfully? Not?

What are elements of my content worth exploring through this lens?



Contribution

This imperative asks two things of the learner:

Who or what

h _____

h _____

was _____ in

p _____ in

_____?



Evaluate the

s _____

e _____

i _____

v _____

of that contribution.



Paradox

Looking for: (cross out ones we're NOT looking for)

CONTRADICTIONS	ALIGNMENT	DILEMMAS	LOGIC
IRONY	OPPOSITES	CONSISTENCY	ANTITHESIS
INCONGRUITY	QUANDARIES	JUXTAPOSITION	RATIONALITY

Paradox asks:

What are the opposing ideas?

What are the inconsistencies?

What conflicting ideas am I being asked to accept simultaneously?



Parallel

Ideas or events that are that are similar and can be compared to one another.

Parallel asks:

What is similar?

What is comparable?

What synonyms exist?

What connections can we make?

PART 3: THINKING LIKE A DISCIPLINARIAN

What do all disciplines have?

- Taxonomy
- Methodology
- Vocabulary
- Set of Rules
- Set of Skills

Your Example:

- Taxonomy
- Methodology
- Vocabulary
- Set of Rules
- Set of Skills

The Limits of Disciplinarianism by Dan Willingham, Ph.D.
(excerpted from *Why Students Don't Like School*)

Cognition early in training is fundamentally different from cognition late in training. It's not just that students know less than experts; it's also that what they know is organized differently in their memory.

Expert scientists did not think like experts-in-training when they started out. They thought like novices. In truth, no one thinks like a scientist or a historian without a great deal of training. It takes more than knowledge to be an expert. When an expert doesn't get the right answer, the wrong answer is usually a pretty good guess.

Experts are better able to single out important details, produce sensible solutions, and transfer their knowledge in similar domains.

Novice teachers fail to notice misbehaviors, whereas experts rarely miss them.

Experts don't think in terms of surface features, as novices do; they think in terms of functions, or deep structure.

In a study of chess experts versus novices, the groups were briefly shown a chess game in progress and asked to reproduce the pieces the way they'd seen them on the board; The novices did it by position on the board (what had been in the left corner, etc.). The experts did it by functional units.

Experts think abstractly. Novices think concretely.

Experts know a lot in order to make working memory not so overloaded. For instance, there are 50,000 game positions in the minds of great chess players.

How do we teach expertise? Sustained work.

Goal with novices is not knowledge creation, but knowledge comprehension

Sternberg (2003) suggested the idea that conventional methods of schooling create "pseudo-experts" among students whose abilities in a subject area do not match the work and type of thinking needed to solve real-world problems within it.

If we wish to teach expertise to students, Sternburg (2003) stated that two things are required: (1) to have the students perform tasks (or meaningful simulations of them) that experts accomplish within a discipline; and (2) teach them the methods of thinking that experts perform when executing their work.

PART 4: COMBINING WITH STANDARDS

STEPS:

1. Look at the Standards
2. Leverage Bloom's to select a thinking skill
3. Choose Depth & Complexity element(s)
4. Select Resources
5. Choose a product piece

RESOURCES:

- bit.ly/rev-bloom
- See ideas for product piece on next page

NOTES:

- Differentiate for ability/interest using the same formula.
- Document what you've done, saving artifacts for your evaluation.
- Spend some quality time with the standards

- add chapter to a book
- advertisements
- announcements
- audiotape
- autobiographies
- awards
- ballad
- billboards
- brochures
- book jackets
- booklets
- bulletin board
- bumper stickers
- captions
- cartoon or comic
- case study
- chart or collage
- cereal boxes
- children's book
- commentaries
- conversations
- data table
- definitions
- demonstrations
- designs
- detective story
- dialogues
- diary entries
- dictionaries
- dioramas or displays
- directions
- drama scripts
- drawings/illustrations
- editorials or essays
- event chains
- experiments
- explanations
- fables or fairy tales
- fact sheets or books
- family tree
- flag
- flow chart
- folk tales
- friendly letter
- games / puzzles
- game boards
- graffiti
- graph
- group project
- guidebooks
- historical (I was there)
- idea webs
- interviews
- inventions
- invitations
- jokes
- journals
- jump rope jingles
- labels
- legends
- letters
- lexicons
- lies
- lists
- lyrics
- magazine page
- manuals
- maps
- math problems
- memoirs
- memories
- menus
- models
- movie scripts
- murals
- museum projects
- music video
- musical instrument
- mysteries
- myths
- newscasts
- newspaper articles
- obituaries
- opinions
- oral presentations
- oral reports & visuals
- pamphlets
- peer editing
- petition
- persuasive writing
- photo album
- plays
- poems
- position statements
- postcards
- poster
- proposals
- puppet shows
- reader's theatre
- reading journal
- recipe
- reports
- requests
- research report
- responses to literature
- resumes
- retellings
- reviews of books
- rules of etiquette
- scale models
- scenery for play
- science display
- scrapbook
- sculpture
- shadow box
- short story
- signs or sketches
- skits
- social media
- sociogram
- songs
- speeches
- story problem
- summaries
- survey
- telegrams
- television scripts
- terrarium
- time capsule
- timeline
- tribute
- Venn diagram
- video
- weather map
- written debates

PART 4: ACTIVITIES WITH THE ELEMENTS

1. Frames.

- a. Download at giftedguru.com/depth-complexity-frames
- b. Use frames to:
 - ✓ _____
 - ✓ _____
 - ✓ _____
 - ✓ _____
- c. Variations:
 - ✓ Content in the center
 - ✓ Combine elements in each section
 - ✓ Affective domain
- d. Best practices
 - ✓ Give an example to show how to a strong one would look
 - ✓ Use throughout activity with fidelity, not just part way

2. Differentiate

- ✓ Use the elements to differentiate by assigning students to different elements or combinations of elements.
- ✓ Useful for group work as well (able to tell who did what).

3. Centers/Learning Stations

- ✓ Find an activity you want to use.
- ✓ Align it with the framework.
- ✓ Differentiate it by either combining elements or adjusting challenge

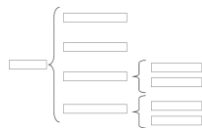
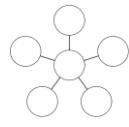
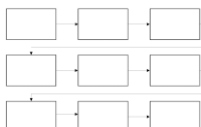
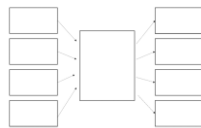
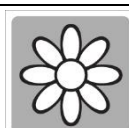
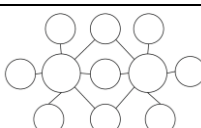
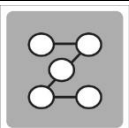
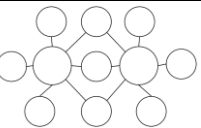
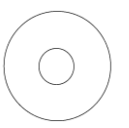
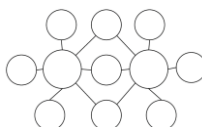
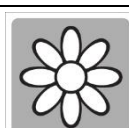
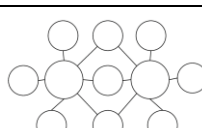
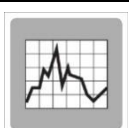
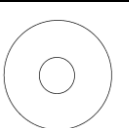
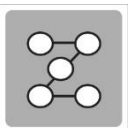
4. Set up classwork or homework

5. Combine elements and use task statements

- a. Thinking Skill (Think Bloom's)
- b. Element[s] of Depth & Complexity
- c. Resources + [Research] Skill[s]
- d. Product

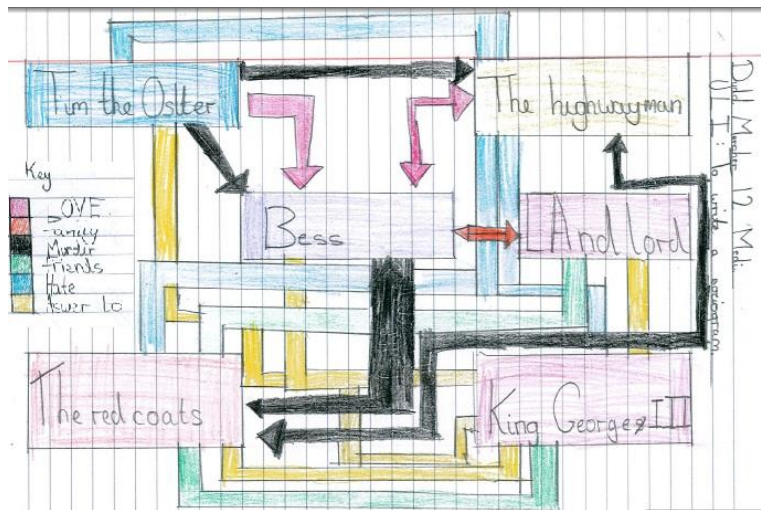
- ✓ Use this for objective statements as well as for student task assignments.

6. Combine with Thinking Maps (or any graphic organizer)

Learning Skill	Element[s]	Thinking Map
Main Idea		
Details		
Sequence	 	
Cause and Effect		
Compare/Contrast	 	
Making Predictions	 	
Meaning in Context		
Fact v. Opinion/ Fiction v. Nonfiction/ Fantasy v. Reality	  	
Making Inferences	 	
Author Purpose	 	
Figurative Language/ Literary Devices	 	

7. Sociograms

- ✓ Students create a visual representation of the relationships among characters. One option: The central character in a work is placed at the center of a page and all the other characters are placed around him/her; spatial relationships, size, shape, color, etc. are all used to represent their relationship to one another.
- ✓ Alternate uses in my content:



8. Create fake Wikipedia page using elements of framework
✓ Download at <http://bit.ly/fake-wiki>
9. Folding activities & Interactive Notebooks
✓ I bought my folding templates from <http://bit.ly/foldable-templates> to make my own.
10. Pathways (using elements in combination with each other)

*Math thing: bit.ly/depth-complex-math

Thanks to David Chung (gatepathways.blogspot.com) and Envision Gifted (envisiongifted.com) for student work samples.