

# Taxonomies of creativity and related questions: Evaluating one's own creativity

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# Abstract

- Williams (1969), Stahl (1980), Nilsson (2012), and the revised taxonomy of Bloom (2001) give the creative thinker frameworks to evaluate his or her own creativity. The authors have collectively taken the taxonomies and combined them with specific questions into a rubric to provide the creative thinker with a contrivance for evaluation. This session will demonstrate how the rubric can help gifted and talented learners better explore their creativity.


# The Imitation Game



- Can computers be intelligent?
- What does it mean to be intelligent?

Source for Image:

[http://www.cineworld.co.uk/assets/media/films/7885\\_poster\\_iphone.jpg](http://www.cineworld.co.uk/assets/media/films/7885_poster_iphone.jpg)

- 
- What does it mean to be creative?
  - How can learners who are gifted self-assess the creativity of their work?

# Creativity

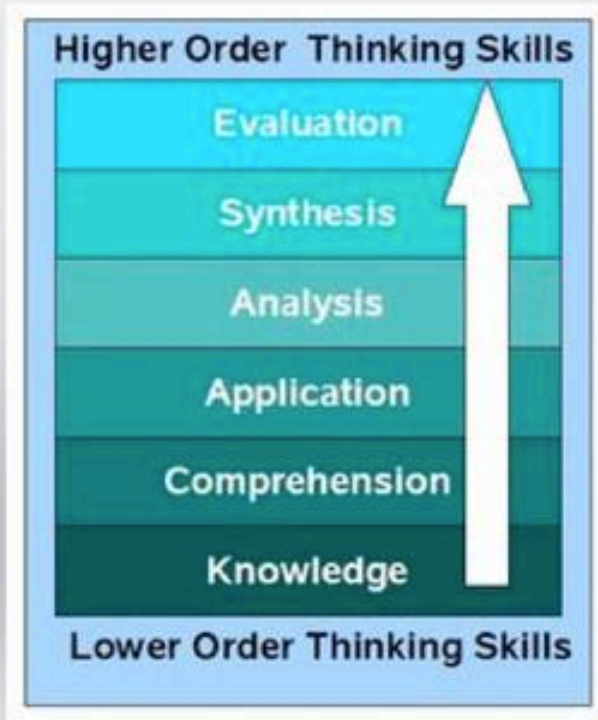
- “The ability to produce work that is novel (i.e., original, unexpected), high in quality, and appropriate (i.e., useful, meets task constraints)”
- Sternberg, Kaufman, & Pretz, 2002, p.1



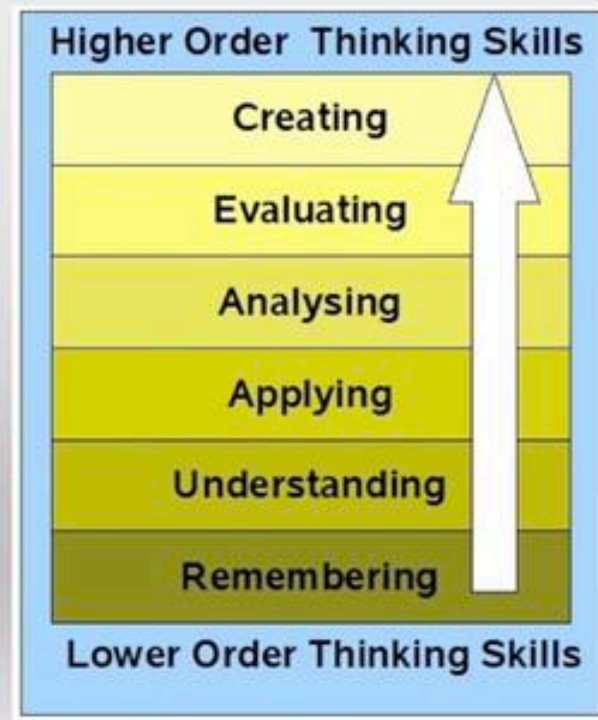
# The Revised Bloom's Taxonomy

Benjamin S. Bloom  
1913-1999

1956



2001



Bloom, B., Englehart, M. Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York, Toronto: Longmans, Green.

Anderson, L. & Krathwohl (Eds.). (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman.

# Remember

- The ability to recall or recognize.



# Understand

- **The ability to receive or use what is being communicated.**





# Apply

- **The ability to use abstractions, rules, principles, ideas, and methods in concrete situations.**



# Analyze

- **The ability to break down information into usable parts.**



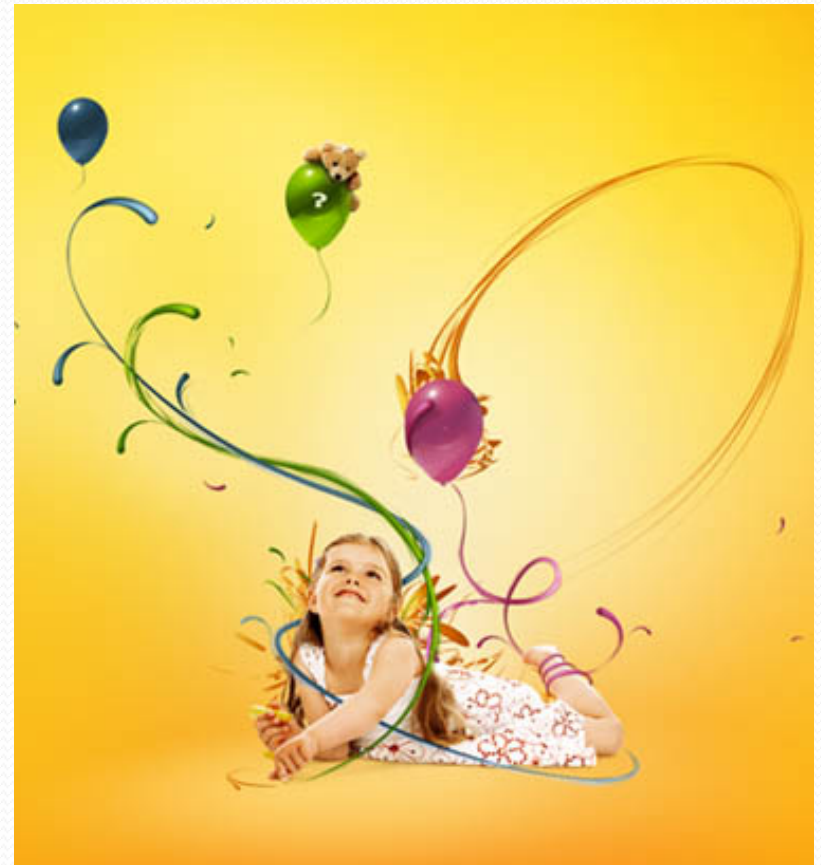
# Evaluate

- **The ability to make quantitative and qualitative judgments.**



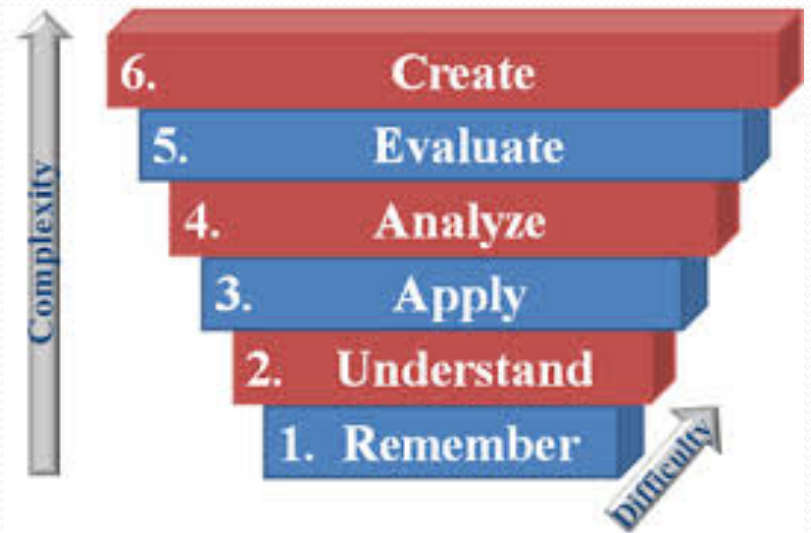
# Create

- The ability to combine pieces of information in a usable way.
- Generating
- Planning
- Producing



# Summary

- Complexity
- Difficulty





# Williams (1969)

- Fluency
  - Generating many ideas
- Flexibility
  - Changing everyday objects to generate a variety of categories



# Williams (1969)

- Originality
  - Seeking new ideas
- Elaboration
  - Expanding, enlarging, enriching or embellishing possibilities





# Williams (1969)

- Risk Taking
  - Dealing with the unknown
  
- Complexity
  - Creating structure



# Williams (1969)

- Curiosity

- Following a hunch, questioning alternatives, pondering outcomes and wondering about options

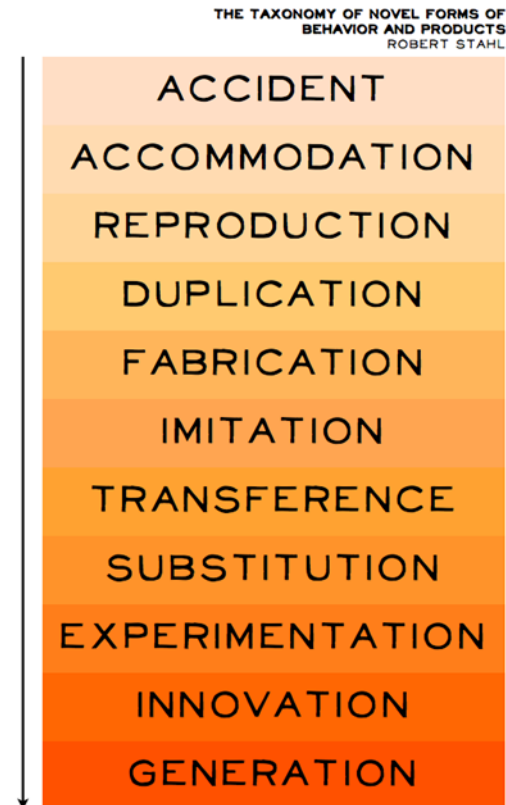
- Imagination

- Visualizing possibilities



# Stahl (1980)

- The Taxonomy of Novel Forms of Behavior of Products
- Created by Robert Stahl
- Eleven different Levels

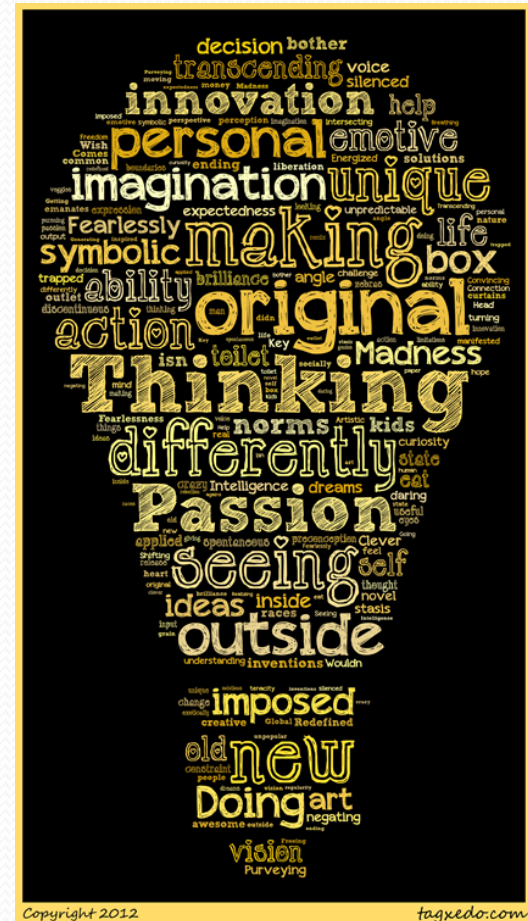


# Stahl (1980)

**Accident:** Behaviors or products that occur by chance – when you drop the can of paint and end up with the paint splatters as your ‘art’.

**Accommodation:** Behaviors or products that are a result of typical, casual or routine adjustments one makes to ease every-day living – and in and of themselves are new, unique.

**Reproduction:** Working with the purpose of producing an exact replica of something, such as by tracing or photocopying. Purpose is exactness of the reproduction



# Stahl (1980)



**Duplication:** Differs from reproduction in that you are trying to copy without using direct methods (tracing).

**Fabrication:** Modifying or altering the surface features to give a new appearance.

**Imitation:** Model or replicate with some understanding of the principals, abstracts or guidelines represented by the original product or entity. Following a set of instructions would be an example of this.

# Stahl (1980)



**Transfersion:** Applying principal or procedures in a setting somewhat removed from where they were first learned.

**Substitution:** The intentional effort to manipulate parts of an original item, substituting some parts for 'better' choices, creating something with the same message or meaning but different features. Think 'iPads' for this one.

**Experimentation:** The effort to combine, mix and use a set of guidelines or principals understood as abstractions, as well as the concrete entities they represent.

# Stahl (1980)



**Experimentation:** The effort to combine, mix and use a set of guidelines or principals understood as abstractions, as well as the concrete entities they represent. Being able to pull ideas and objects from different areas to create something new – think of writing a paper or preparing a dissertation.

**Innovation:** When you understand the intent behind a set of principals and utilize this meaning to create something that is different to how others have portrayed these concepts in concrete form.

**Generation:** Using two or more sets of ideals or principals and combining these to create a new set of ideals or principals that represent the “best” of the two previous sets.

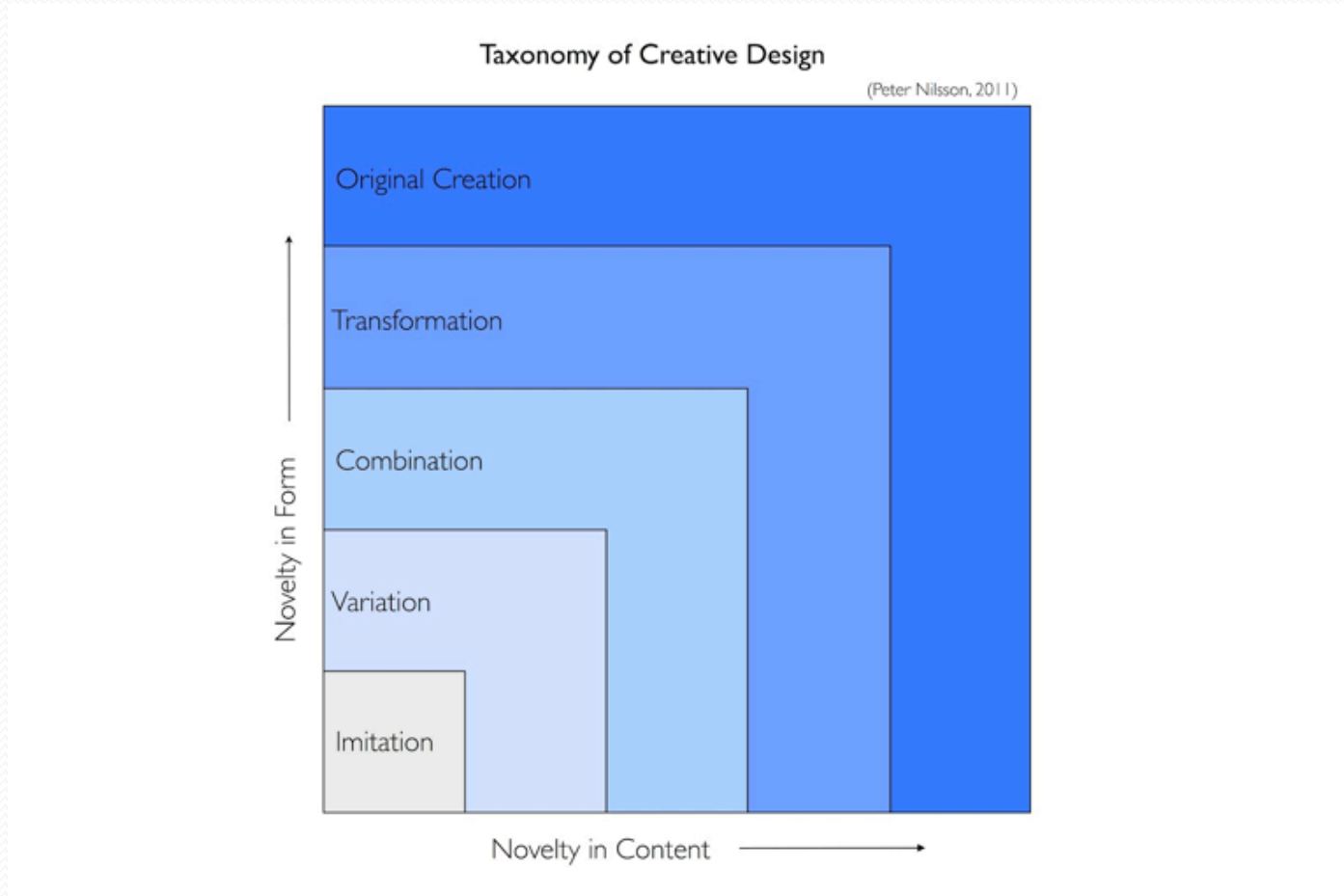
# Stahl (1980)

- “Rather than focus solely on the physical manifestation of the creative process (what is produced), Stahl looks at intent and purpose behind the act of creative thought and behavior (how it is produced)”.



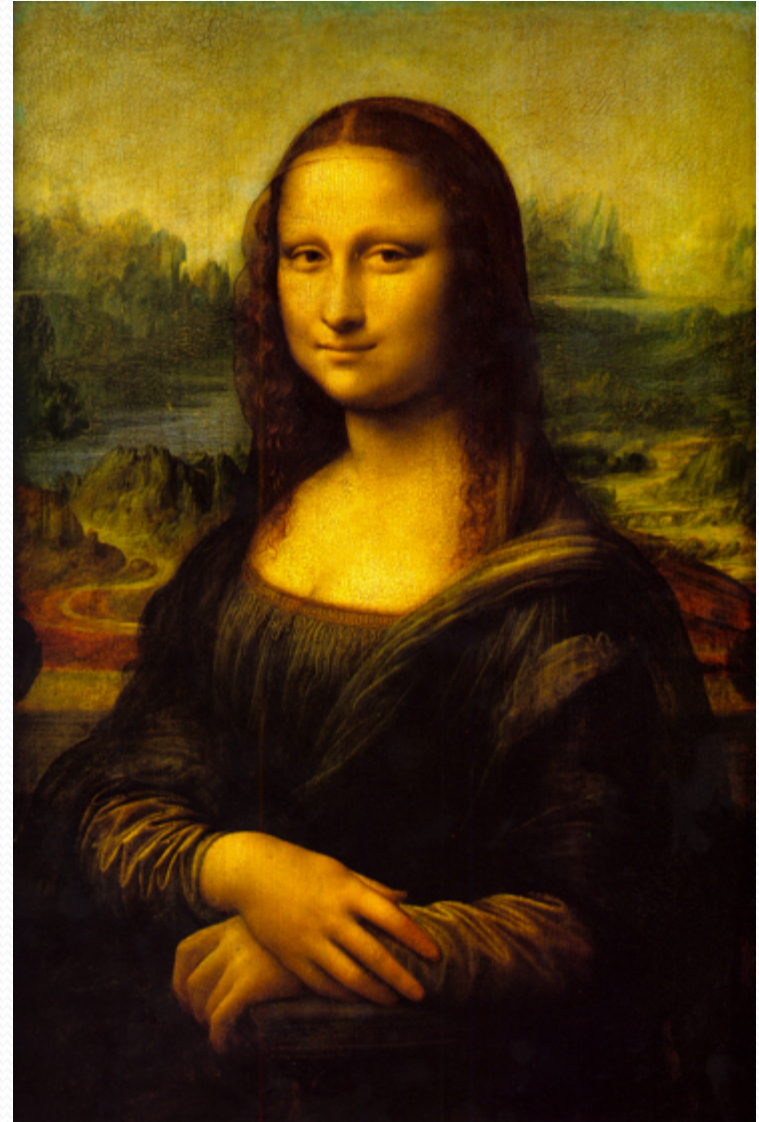


# Taxonomy of Creative Design (Nilsson, 2011)



# Imitation

- The replication of a previous work



# Variation

- The modification of a previously existing work in a way that retains the essential form or content of the work



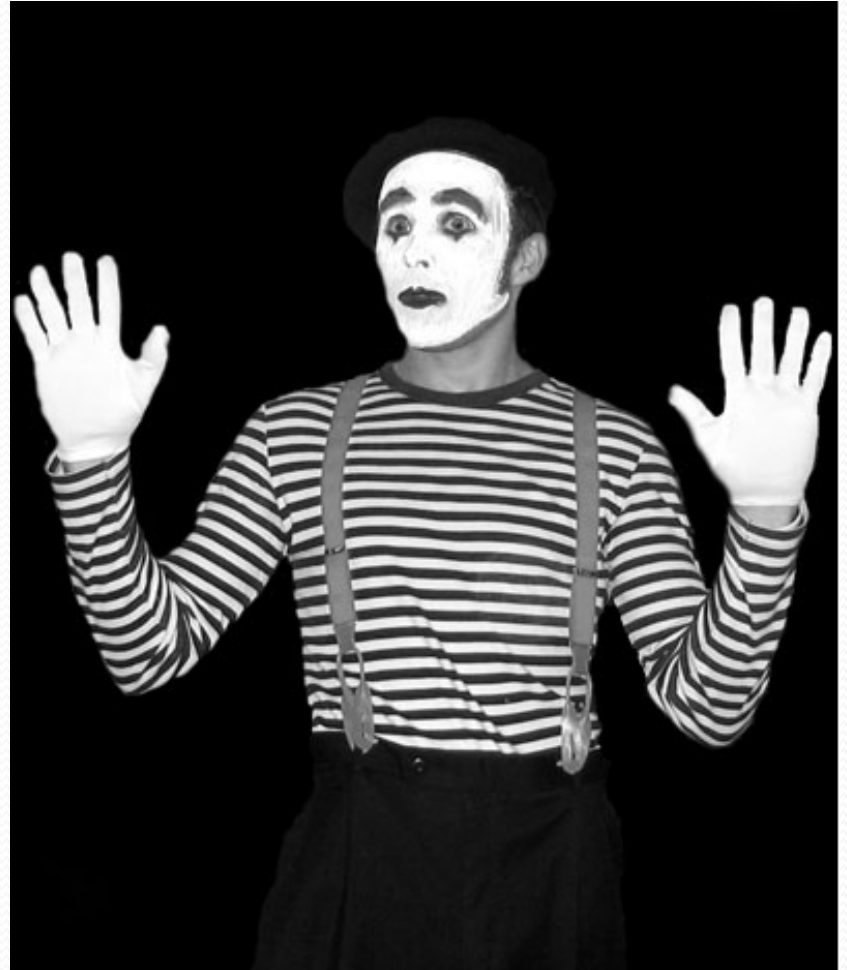
# Combination

- The mixture of two or more works in a way that changes the essential form or content of both or all



# Transformation

- Translates a work from one medium or more into another
- The creation of a new work, in form and/or content, that retains the core essence of the original work



# Original Creation

- The creation of something previously unrecognizable



# Creation of CSAR Matrix

Questions	Taxonomy
1	Planning (Bloom, 2001)
2	Innovation (Stahl, 1980); Planning (Bloom, 2001)
3	Combination (Nilsson, 2011); Experimentation (Stahl, 1980)
4	Duplication (Stahl, 1980)
5	Fluency (Williams, 1969); Generating (Bloom, 2001)
6	Complexity (Williams, 1969)
7	Elaboration (Williams, 1969) ; Variation (Nilsson, 2011)
8	Substitution (Stahl, 1980); Variation (Nilsson, 2011)
9	Curiosity (Williams, 1969); Producing (Bloom, 2001)

# Creativity Self- Assessment Rubric (CSAR)

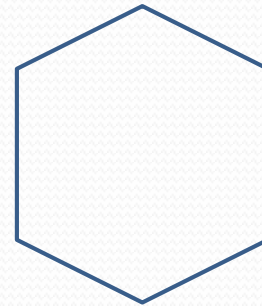
In 15 words or less,  
describe your work

A large, empty hexagonal box with a blue outline, intended for the user to describe their work in 15 words or less.


What is the purpose  
of the work?

A large, empty hexagonal box with a blue outline, intended for the user to describe the purpose of their work.

What is unique  
about your work?

A large, empty hexagonal box with a blue outline, intended for the user to describe what is unique about their work.

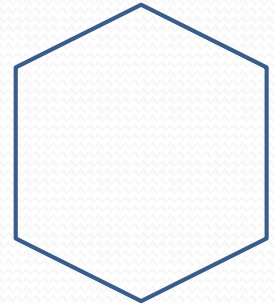
What Skills are required  
to create this work?

A large, empty hexagonal box with a blue outline, intended for the user to list the skills required to create their work.

Did you generate  
several ideas?

A large, empty hexagonal box with a blue outline, intended for the user to describe if they generated several ideas.

How did you bring  
structure to your work?

A large, empty hexagonal box with a blue outline, intended for the user to describe how they brought structure to their work.

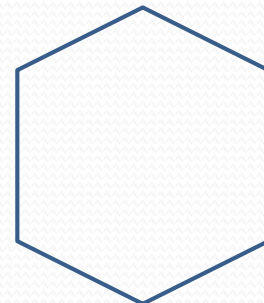
What could you expand to  
make your work better?

A large, empty hexagonal box with a blue outline, intended for the user to describe what they could expand to make their work better.

What could you remove  
to make it better?

A large, empty hexagonal box with a blue outline, intended for the user to describe what they could remove to make their work better.

What are likely  
outcomes of the work?

A large, empty hexagonal box with a blue outline, intended for the user to describe the likely outcomes of their work.



# Questions / Comments

- Contact Information:
  - Center for Gifted Studies
  - (229) 245-3869



❖ <http://www.valdosta.edu/colleges/education/psychology-and-counseling/center-for-gifted-studies/welcome.php>