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
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

1956

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Lower Order Thinking Skills

Higher Order Thinking Skills

2001

Remembering
Understanding
Applying
Analysing
Evaluating
Creating

Lower Order Thinking Skills

Higher Order Thinking Skills


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

![Diagram showing complexity and difficulty levels](image)
Williams’ Taxonomy of Creative Thinking (1969)

Developed by Frank Williams

Consists of 8 different levels
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)”.

http://sonyaterborg.com/2012/03/24/taxonomy-of-creativity/
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

<table>
<thead>
<tr>
<th>Questions</th>
<th>Taxonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Planning (Bloom, 2001)</td>
</tr>
<tr>
<td>2</td>
<td>Innovation (Stahl, 1980); Planning (Bloom, 2001)</td>
</tr>
<tr>
<td>3</td>
<td>Combination (Nilsson, 2011); Experimentation (Stahl, 1980)</td>
</tr>
<tr>
<td>4</td>
<td>Duplication (Stahl, 1980)</td>
</tr>
<tr>
<td>5</td>
<td>Fluency (Williams, 1969); Generating (Bloom, 2001)</td>
</tr>
<tr>
<td>6</td>
<td>Complexity (Williams, 1969)</td>
</tr>
<tr>
<td>7</td>
<td>Elaboration (Williams, 1969); Variation (Nilsson, 2011)</td>
</tr>
<tr>
<td>8</td>
<td>Substitution (Stahl, 1980); Variation (Nilsson, 2011)</td>
</tr>
<tr>
<td>9</td>
<td>Curiosity (Williams, 1969); Producing (Bloom, 2001)</td>
</tr>
</tbody>
</table>
In 15 words or less, describe your work

What is the purpose of the work?

What is unique about your work?

What Skills are required to create this work?

Did you generate several ideas?

How did you bring structure to your work?

What could you expand to make your work better?

What could you remove to make it better?

What are likely outcomes of the work?

Creativity Self-Assessment Rubric (CSAR)
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