Creativity in Scholarship and Teaching

Gloria Anderson, Daniel Steltz, Dr. Robert Eierman❖ Chemistry ❖ University of Wisconsin-Eau Claire

Abstract:

The goal of this project is to compare and contrast how educators in different disciplines think and talk about creativity in their own scholarly work and in their teaching. Faculty members grouped into three categories by discipline, arts/humanities, social sciences, and natural sciences, each participated in a structured group interview. Each group was asked the same set of questions about their personal creativity in scholarship, how they address creativity with their students and in their teaching, and their definition of creativity. The interviews were recorded, transcribed, and analyzed to examine similarities and differences between disciplines in how each addresses creativity.

Research Questions

- What is creativity?
- Can it be taught?
- Are educators addressing creativity in their curriculum?

Approach

- Review current literature on the nature of creativity
- Conduct interviews with professional educators at UWEC
- Transcribe and analyze discussions
- Discover connections

Across the Disciplines

Panel Groups were divided into 3 major groups by discipline:

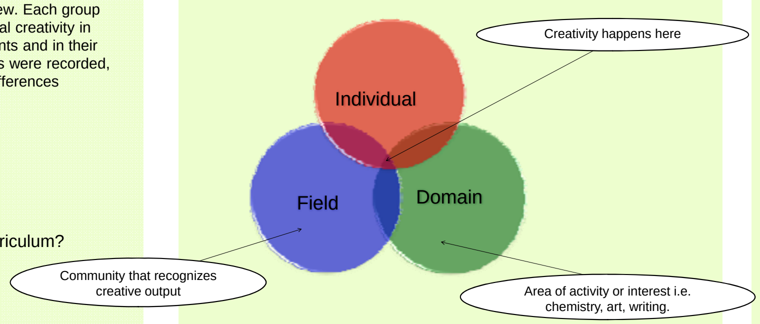
- Natural Sciences/Mathematics
- Social Science/Foreign Languages
- Art/Music/Humanities

Interview Questions:

- Personal/Professional creativity
  - Is there a difference between creativity and skill?
  - What is your first step with a problem or tabula rasa?
  - Is there a difference between externally and internally-motivated creativity?
- Definition of creativity
  - How do you define creativity?
  - Is creativity universal or does each domain have a specific form of creativity?
  - Does creativity need to be recognized by others?
- Creativity in the classroom
  - Can you measure or grade creativity?
  - How do you encourage or inspire creativity in your students?
  - Do you express creativity as a part of your curriculum?

Background Research: Models of Creativity

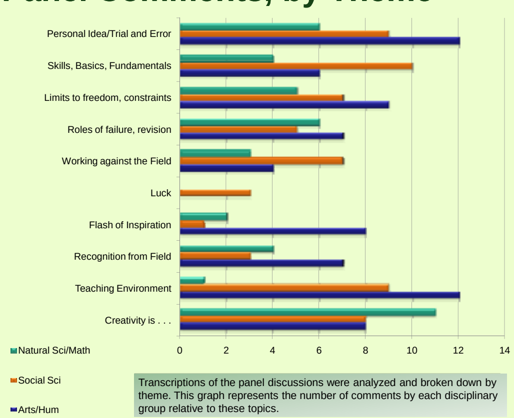
Gardner/Czikzsentmihalyi Model of Creativity



Creativity occurs through the individual, but is manifested within the creator's domain and must be recognized by the contemporaries in the field

- Howard Gardner – Creativity is a three-way dialectic between personal (the individual), impersonal (the domain) and multipersonal (the field)
- Mihalyi Czikzsentmihalyi – Systems perspective
- Isaac Asimov – Gather Bits (knowledge), Compare bits, Recognize good, Have courage to tell, Have Luck
- Rollo May – Creativity is the encounter of the intensively conscious human being with her/his world
- Twyla Tharp –
  - Creativity happens at the end of lots of work.
  - It is important to take risks and fail
  - Get out of a "rut" by changing, and move ahead in a "groove"

Panel Comments, by Theme



Transcriptions of the panel discussions were analyzed and broken down by theme. This graph represents the number of comments by each disciplinary group relative to these topics.

Creativity is . . .

Arts/Humanities:

- "Creativity is kind of this limitlessness that all people have… it is trying to grasp a bit of that limitlessness and put it into some form that others can see."
- "At a lower level, [creativity] is rearranging the elements in another way, like a puzzle or a cookie"

Social Sciences:

- "It's the grunt work that you have to do to get to the moment when you can find that gap [in existing scholarship], or go through that gap, to rewrite history and change the world view."
- "Creativity rests on preparation."

Natural Sciences:

- "Creativity is thinking about what you have, what you could use, and putting them all together"
- "It's like launching yourself off that diving board of skill into the unknown"

Conclusions About Creativity

Develop Fundamental Skills:

- One must have a body of knowledge (or a specific set of skills) before creativity can occur
- Much of the creative process involves research, practice, and patience; it's not just a sudden flash of inspiration
- Creativity requires experimentation; one must be very familiar with all the elements of the domain before it's possible to recognize a possible solution or develop a creative product

Safe Environment:

- Develop student-teacher and student-student relationships built on mutual respect
- Students must feel comfortable asking questions and expressing ideas without fear of being put down
- Lead by example – teacher enthusiasm is contagious

Failure and Recovery:

- Creativity requires taking risks; learn to see failures as learning opportunities, not dead ends
- Projects should incorporate enough time for students to have an initial failure and opportunity to recover

Connecting Ideas

- Go beyond bookwork; assign projects that encourage connecting past knowledge and experience to new ideas
- Creativity involves taking many of the same ingredients and rearranging them in a new way
- Stimulating creativity is a similar process across the disciplines

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