

Creativity and Intelligence

Syllabus and Questions

The books for the course are Sparks of Genius by Root-Bernstein and Root-Bernstein, the Handbook of Creativity edited by Robert Sternberg and anything else you can find of interest.

A bibliography of books and materials available within the University of Maine System Libraries has been provided for your convenience.

You will be responsible for 15 essays chosen out of the following questions. You must answer at least 2 essays out of each section. Three pages will be the norm – typed, of course. Please cite any references within your essays. Attach a reference page to your papers.

I will call our two books “Sparks” and “Handbook” for short.

Lectures will follow the progress of topics. Class time will not be limited to lectures, please feel free to bring in nifty things you have found.



What is Creativity?

1. Describe a CD. Just a paragraph. Then read the first fifty pages of “Sparks” – then describe it again. What’s the difference? What changed about your thinking? Were the basic processes different? Were you more creative or did something else happen?
2. Describe various approaches used to study creativity. What are the advantages and disadvantages of each. Is there a best approach?
3. What do psychometric tests of creativity measure? Be specific where possible. What assumptions underlie these tests?
4. Why is the “Just Suppose” test of creativity attractive? Contrast to other tests. What are advantages and disadvantages of each?
5. How do associationistic and Gestalt psychologists differ in their description of the creative process? In application would they recommend different methods of stimulation? Why?

Readings for the above: Sparks 1-50, Handbook 3, Lectures and Outside Sources.



Where does it come from?

6. Biologically, what is the function of creativity? What role does it play in society or civilization that would indicate an evolutionary advantage for creativity?
7. How does the creative brain differ? What evidence is there to support the idea of a thought process which is different from general thinking or problem solving? If it is biological does that mean that environment would play a role in its development?
8. What is a “crystalizing experience”? (Feldman, 9, Handbook). What would be the relationship between the environment and biological foundations of creativity based on this notion? What are the roles of external forces (family, education, society)?
9. How is the way in which one sees, perceives, and feels the environment related to the creative process? Is it possible to change the way one perceives the world – to change the way one thinks? What experiences would be beneficial to creativity?
10. Write a question about where creativity comes from and answer it. If you have curiosity about all the many things related to biology, brain damage, gifted brains, bicameral brain, or even whether or not your dog is creative – this is the time to explore it...

Readings for the above: Sparks 9, 10; Handbook 7, 8, 9; Lectures and Outside Sources.



Children and Creativity

11. In make-believe play children free themselves from limitations of the stimuli of their environment. Why is this ability important to creativity. What MENTAL processes are not being exercised by a child who does not play make-believe? What disadvantages does such a child have in comparison to a child who does play make-believe?
12. What is there about the story line quality of imaginative play that helps the child develop a greater attention span and more ability to concentrate?
13. Do you think parents should be concerned when a child's thinking or playing is not always reality oriented. Why? Why not? Under what conditions?
14. What attributes or processes underlie teaching methods designed to stimulate creativity? Try to be fairly specific. (If you have never had mathematics how could you be taught to be a creative mathematician? What steps would be necessary?)
15. How might parents work to stimulate creativity? In a total permissiveness a

good approach? Why?

16. How do teachers view creative students. What effect will this have on (1) their teaching methods (2) the students and their social norms (3) creative productivity?

Readings for the above: Sparks 13, 16; Handbook 9, 21, Lectures and Outside Sources.



Personality and Creativity

17. What are some of the personality characteristics which characterize creative people? If a person has a large number of these characteristics can that person be assumed to be creative? Why? What implications does your answer have for research into creativity?
18. What is an altered state of consciousness? Why can't we accept self-report that altered states of consciousness stimulate creativity? What effect does a stimulant produce and how does this state relate to creativity?
19. What theoretical assumptions suggest psychotherapy as a possible stimulant for creativity? Why, in practice, might the theory be correct but no testable increase in creativity occur? (Hint: set).
20. As creativity stimulators, what characteristics do role playing and hypnosis share? What is meditation? How does it relate to creativity? How does it relate to altered state of consciousness? Would the product of an altered state of consciousness be creative or artificially "different?"
21. How does humor relate to creativity? Find 5 examples of humor. Analyze the construction of the humor--what makes it funny? How would you practice or exercise (for the purpose of increasing) the humor process? Would a sense of humor be related to creativity? How would you test it?

Readings for the above: Sparks 1-5 in general; Handbook 3, 5, 14, 15; Lectures and Outside Sources.



Intelligence – The other side of the coin or a different coin altogether?

22. According to Guilford, what is a "factor" of intelligence? Is creativity a factor? What according to Guilford is the best way to test for creativity? Why?
23. What difficulties arise when trying to distinguish between creativity and intelligence. What does research say about their relationship?
24. OPINION AND PREDICTION (no facts have to be used to support this answer). Just suppose school systems were reoriented from intelligence to creativity

what might happen? (to society, culture, students, etc.--any effect you might think of good or bad)

25. What role does discipline play in the creative process? Review several aspects of the creative process or research findings to demonstrate its role. (the author need not have talked about it directly--make inferences)

Readings for the above: Handbook 10, 12, 13; Lectures and Outside Sources.



Culture and Environment

26. Review some of the "New Teaching Techniques" for stimulating creativity. Create one of your own. How important do you think the school is in developing creativity within the culture? What do you consider the most important factor in devising a teaching technique to stimulate creativity?
27. What would you look at in other cultures in order to predict whether the culture would be high in creativity? What are the most important factors when considering large populations?
28. Do you feel creative at work? Why? What would a large corporation look like organizationally and culturally if it "scored" high in innovation and creativity?
30. Do some research on other cultures and their creativity, how important they think creativity is, how they encourage creativity, what forms creativity takes within the culture.... well, see what you can find.
31. You have a great new idea for reorganizing the organization you work for (school, factory, etc.). It is innovative, will save work, and eliminate unnecessary bureaucracy. Explain the steps of two alternate forms of getting it adopted by the powers that be. (You're not the boss, but rather the equivalent of middle management--you have some power but it is limited)
32. Advertising is a method of communicating creativity. Find examples of each of the following--creative ad and creative product, uncreative ad and creative product, creative ad and mundane product, uncreative ad and mundane product. Explain the characteristics of each ad which made you place it in its classification. Why were the products presented as they were--in other words--was the communication effective or can you come up with something better?

Readings for the above: Handbook 15, 17, 19; Lectures and Outside Sources.



Stimulating Creativity

33. What applications are possible from our knowledge of the development of creativity in children to stimulating creativity in adults? How?
34. Write a creative questions and answer it. (topic must deal with creativity and/or intelligence)
35. Why would physiognomic perception be related to creativity? Make up five examples for a physiognomic cue test. What relationship underlies the response continuum?
36. Intuition may be regarded as the ability to abstract concepts from minimal data and so "skip steps" or the ability to apply concepts without being able to verbalize the principle-unconsciously. What evidence exists for each type? Are they the same or different?
37. Think of a sample problem and brainstorm it through Osborn's creativity stages. (you may get friends to form a group or go it alone)
38. What similarities underlie morphological analysis, attribute listing and checklists? At what point do they enter the creative process? When would you choose one method over another? (give examples)
39. List 20 areas of everyday life in which an individual could apply creative effect to make life more interesting. Give a short description of method and result for each.
40. Compare and contrast 4 of the following thought game shows on TV for the kind of mental gymnastics necessary to succeed--flexibility, associations, knowledge, agility, etc. Would they or would they not indicate the presence of the creative potential? Why?

Wheel of Fortune
Do You Want to Be a Millionaire?
The Price is Right
Jeopardy
Hollywood Squares
Family Feud
Weakest Link



Now here is the fun part, the due dates:

You may hand in papers on any Tuesday evening from 6 to 8:30.

You must hand in 5 by March 5th, another 5 by April 2nd, and the final 5 by May 7th.