

Part 1



Teaching Creative Thinking



- Introduction
- Rationale for Creative Thinking
- Introduction to Fluency
- Introduction to Flexibility
- Benefits of Fluency and Flexibility



Introduction

What is Creative Thinking?

- Ability
- Attitude
- Process



Introduction

Creative thinking is the creation or generation of ideas, processes, experiences, or objects.



Introduction



To be creative means to see the world and to see it in a way that is different from others.

Thinking in this manner leads to innovation.

Introduction

Edward DeBono believes...

“...many highly intelligent people are bad thinkers --- Thinking is the driving skill with which each individual drives his or her intelligence.”

(Edward DeBono's *Mind Power*, 1995)

Introduction

- Standardized tests use individual student performance to provide one measure of school achievement.
 - These tests are highly publicized measures of school success.
 - Thus, schools tend to "teach to the test" and to educate children to be test takers.

Critical Thinking for Life!



Introduction

- Is test preparation all that students need to learn?
- Are we adequately preparing students for the future?

We have moved into an economy driven by ideas and innovation.

- Are we providing students the opportunity to develop creativity?

Rationale for Creative Thinking

- Research indicates 81 percent of corporate leaders in America say "creativity is an essential skill for the 21st-century workforce."
- Business leaders seek individuals who exhibit creativity and other skills such as collaboration, problem solving, critical thinking, and oral communication.



Rationale for Creative Thinking

- Many of the skills necessary in the workforce require the ability to think creatively and the ability to use creative problem solving.
- Creativity is essential in today's world. Students must be provided creative thinking opportunities if they are to become innovative leaders of tomorrow.

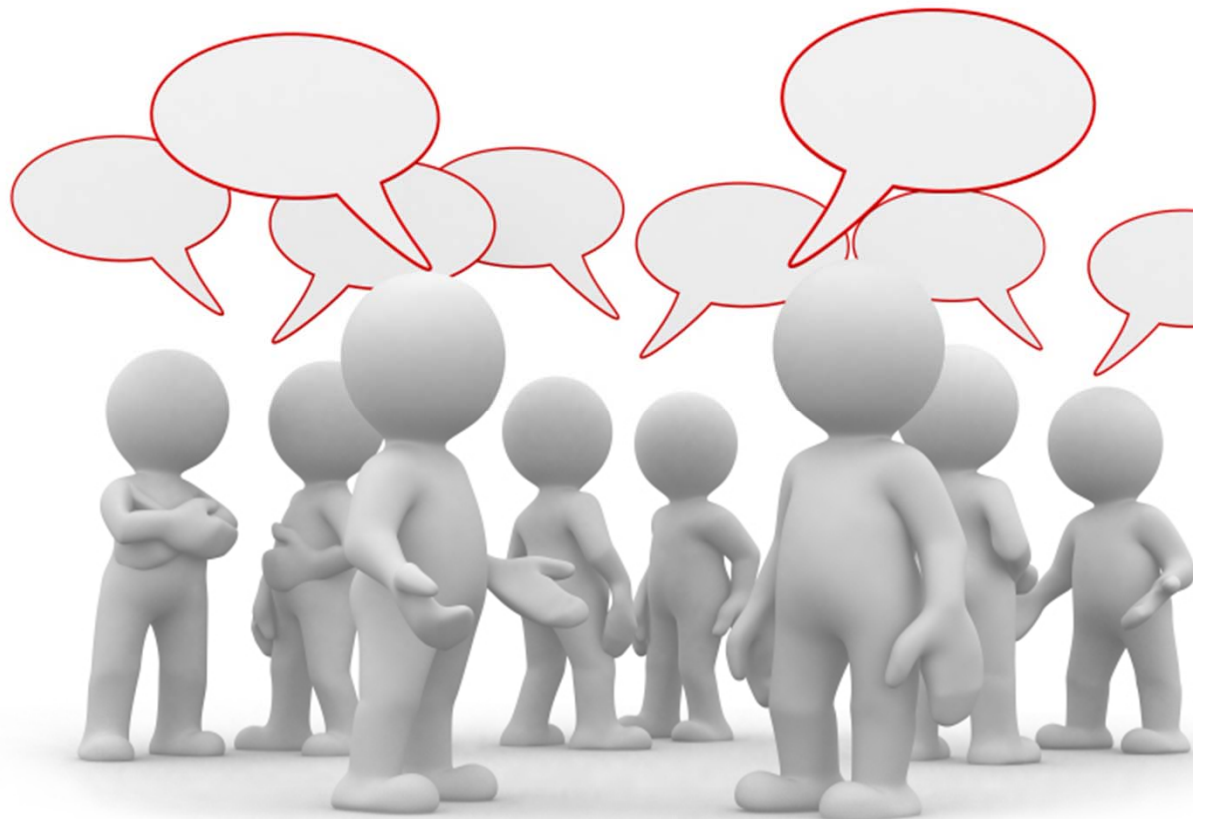
Can creative thinking be taught?

- Ask more open-ended questions
- Encourage varied student responses
- Teach explicit skills



Can all students become Mozarts?

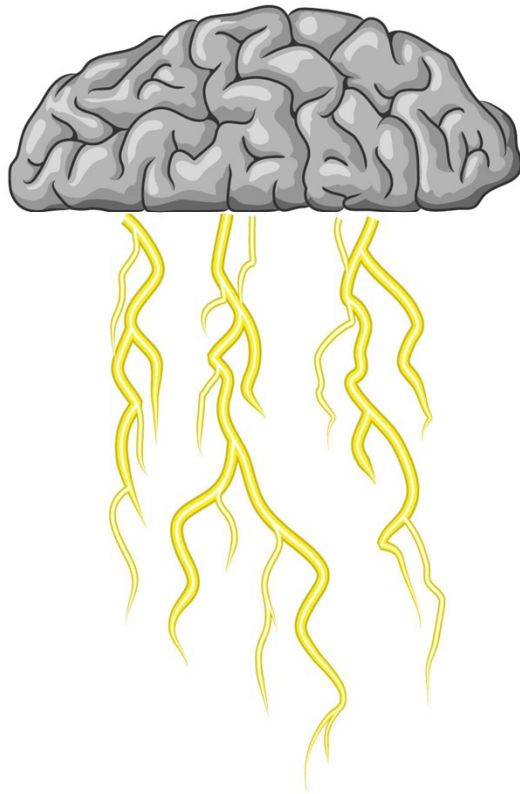
The creative output of one student should not be compared to the creative output of others.



Teaching Creative Thinking

Guidelines

Brainstorming

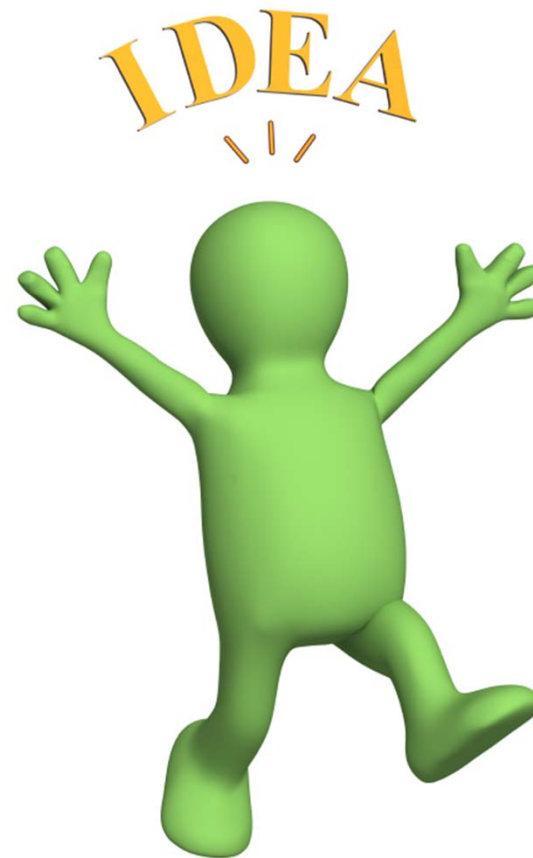


Think-Time



Four Elements of Creative Thinking

- Fluency
- Flexibility
- Elaboration
- Originality



Fluency

- The ability to generate many ideas, solutions, or possibilities
- Requires students to tell what they know
- Make informed instructional decisions



Fluency

Example:

- Brainstorm ways people travel.
- How many places can you name?



Fluency

Example:

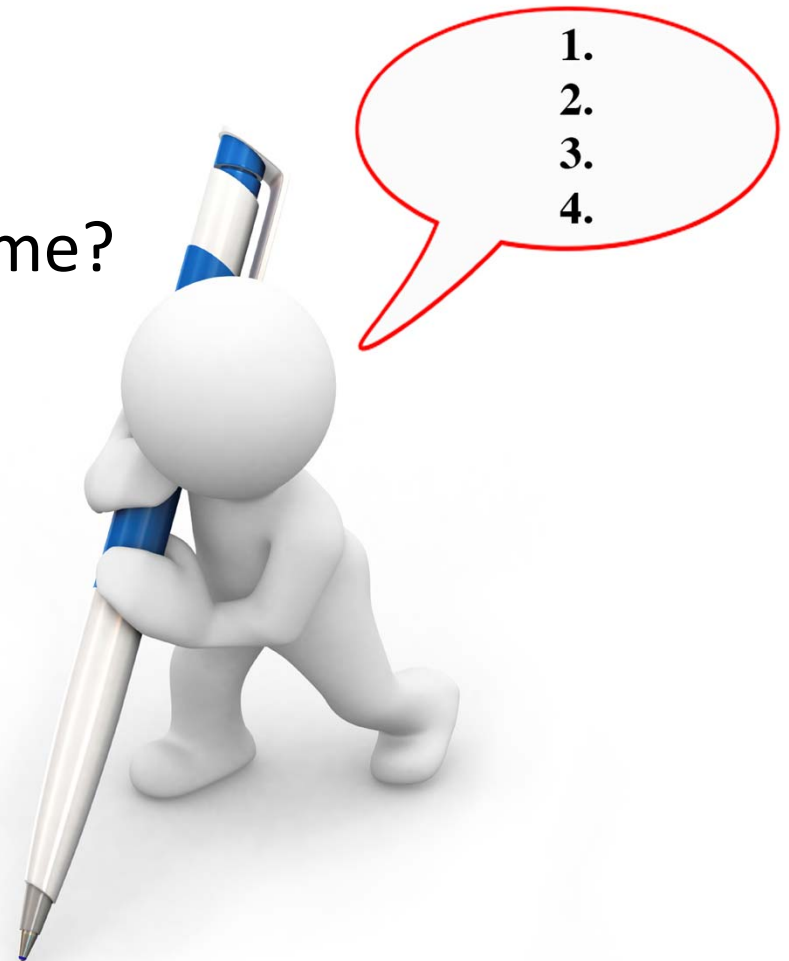
- Brainstorm ways people travel.
 1. boat
 2. airplane
 3. car
 4. walk
 5. bus



Fluency

Example:

- How many places can you name?
 1. soccer field
 2. football field
 3. tennis court
 4. cave
 5. beach
 6. park



Fluency Questioning Stems

- List as many benefits about ___ as you can.
- Name things that ___.
- You have 3 minutes to identify as many solutions to the problem as you can.



Flexibility



- Requires generating a wide range of ideas or a variety of possibilities
- Involves seeing things from different points of view or perspectives

Flexibility

Example:

- Brainstorm ways people travel.
- How many places can you name?



Flexibility

Example:

- Brainstorm ways people travel.

1. boat

2. airplane

3. car

4. walk

5. bus



1.
2.
3.
4.

Flexibility

Example:

- How many **different places** can you name?

1. soccer field
2. football field
3. tennis court
4. grocery store
5. department store
6. beach



Flexibility Questioning Stems

- What are some different ways to solve this problem?
- Group the brainstormed list of items into categories.
- What are the advantages of ____? the disadvantages of ____?



Fluency and Flexibility

Practice Example:

- Name things that fly.

1. bird

2. eagle

3. woodpecker

4. bumblebee

5. wasp

6. butterfly

7. airplane

8. car

9. speedboat

10. arrow

11. time



Teaching Creative Thinking

Benefits of Fluency and Flexibility

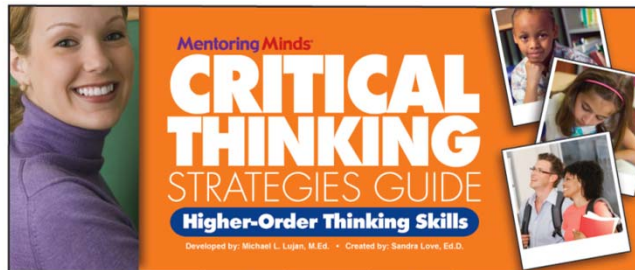
- Generate a large list of potential solutions for solving a problem or a situation
- Categorize the ideas into different groupings
- Have many options to choose from when determining the best answer

Critical Thinking for Life!



Teaching Creative Thinking

Critical Thinking Resource



Introduction

How to Use this Chart

Thinking-Centered Classroom

Instructional Strategies

Wait-time/Think-time

Critical Thinking

Social Studies Stems

Science Stems

Mathematics Stems

Reading/Writing Stems

Differentiation for Learning Styles

Assessment

Creative Thinking

Critical/Creative Thinking Strategies

- Creative Thinking
 - ✓ Brainstorming
 - ✓ Questioning Stems
 - Fluency
 - Flexibility
 - Originality
 - Elaboration
 - Six Thinking Hats
- Critical/Creative Thinking Strategies



Next Week's Blog Post: Teaching Creative Thinking, Part 2

Teaching Creative Thinking

- Introduction to Originality
- Introduction to Elaboration



Teaching Creative Thinking

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Critical Thinking for Life!

