



SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT

Overview of Three Thinking Styles

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3 Styles of Thinking

■ Analytical:

- Analyzing, Judging, Evaluating, Comparing & Contrasting and Examining

■ Creative:

- Creating, Discovering, Producing, Imagining and Supporting

■ Practical:

- Practicing, Using, Applying and Implementing



Individual Differences

- All of us have a preferred style of thinking
- We do not only use one style exclusively
- Different situations call for different kinds of thinking
- Everyone has some combination of analytic, creative & practical thinking skills



Individual Differences

- The same basic set of thinking skills underlie all three thinking styles
 - Analytical thinkers are adept at familiar and academic kinds of problems
 - Creative thinkers are adept at relatively novel problems
 - Practical thinkers are adept at everyday problems



Potential Characteristics of Analytical Thinkers

- Likes school
- Follows directions
- Natural Critic
- Often prefers to be given directions



Potential Needs of Analytical Thinker

- Assignments that require thought as opposed to memorization
- May have difficulty presenting ideas in a non-argumentative way
- May have difficulty with “creative” assignments
- Opportunities to work through open-ended questions with no right/wrong answer



Potential Characteristics of Creative Thinkers

- Likes to come up with their own ideas
- May not like to follow directions (or be rushed)
- Natural “ideas” person (sees world from a unique perspective)
- Self-directed



Potential Needs of Creative Thinkers

- Open-ended assignments with some structure
- Support meeting deadlines/timelines
- Support working with other students
- Frequent outlets for creativity



Potential Characteristics of Practical Thinkers

- Likes to know what use tasks and directions serve
- Likes to apply ideas in pragmatic fashion
- Natural common sense



Potential Needs of Practical Thinkers

- Hands-on activities
- Connect assignments to the real world
- Support with completing activities that they do not see an immediate application for
- Opportunities to lead



Good Thinkers Figure Out:

- What it is they are good at
- What it is they are not good at
- What they can do to make the most of their strengths while remediating/compensating for their weaknesses



Higher Order Thinking Skills

- Problem Identification: Recognizing that you have a problem and defining what the problem is
- Process Selection: Steps to solve the problem
- Representation of Information: Both internally and externally
- Strategy Formation: Sequencing the processes and representations of the previous two skills



Higher Order Thinking Skills

- Allocation of Resources: Time spent on various components for optimal performance
- Solution Monitoring: Keeping track of what is done, what is currently being done and what still needs to be done
- Evaluating Solutions: Being sensitive to feedback and turning feedback into action



Depth Of Knowledge Levels

- The Depth & Complexity of the knowledge in a content standard as well as how deeply a student needs to understand the content for a given response
 - Level One: Recall
 - Level Two: Skill/Concept
 - Level Three: Strategic Thinking
 - Level Four: Extended Thinking



Teaching/Evaluating Analytical Thinking

- We ask students to:

- Compare & contrast
- Analyze
- Evaluate
- Critique
- Ask why
- Explain why
- Explain causes
- Evaluate assumptions



Teaching/Evaluating for Creative Thinkers

■ We ask students to:

- Create
- Invent
- Imagine
- Design
- Show how
- Suppose
- Say what would happen



Teaching/Evaluating for Practical Thinkers

- We ask students to:

- Apply
- Show how they can use something
- Implement
- Utilize
- Demonstrate how in the real world



Example Tasks: Fractions

■ Analytical:

- Your Dad needs a very clear step by step explanation of how to divide fractions. Create one.

■ Creative:

- Develop a new way to teach your Dad how to divide fractions.

■ Practical:

- Show your Dad why he needs to know how to divide fractions in his daily life.



Example Tasks: English/ Language Arts

■ Analytical:

- Choose a short story with a believable plot, logical sequence of events and a convincing resolution. Provide specific support for your positions.

■ Creative:

- Create an original short story with a believable plot, logical sequence of events and a convincing resolution.

■ Practical:

- A local radio station will be airing original short stories written by 10th grade students. Create an original story with a believable plot, logical sequence of events and a convincing resolution.



Common Pitfalls of Good Thinkers

- Everyone fails sometimes
- When solving problems there are usually more ways to fail than succeed
- The sign of a good thinker is not never making mistakes, but learning from those mistakes



Common Pitfalls of Good Thinkers

- Lack of motivation
- Lack of Impulse control
- Lack of perseverance & perseveration
- Using the wrong abilities
- Inability to translate thought into action
- Lack of product orientation
- Inability to complete tasks and follow through
- Failure to initiate
- Fear of failure
- Procrastination



Common Pitfalls of Good Thinkers

- Misattribution of blame
- Excessive self-pity
- Excessive dependency
- Wallowing in personal difficulties
- Distractibility and lack of concentration
- Spreading oneself too thin or too thick
- Inability to delay gratification
- Inability or unwillingness to see the forest for the trees
- Lack of balance between thinking styles
- Too little or too much self-confidence



A Few Final Thoughts

- How well you use what you know is more important than what you know
- What really matters in the world is not the level of one's intelligence, but what one achieves with this intelligence
- Encourage students to formulate problems for themselves



A Few Final Thoughts

- Our goal should be to teach students to be good thinkers, both inside & outside of school
- There is more to success than higher order thinking
- There are different ways of being smart and different ways to use the thinking skills we have



References

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