Teaching for Successful Intelligence

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Organization

- Introduction
- The Nature of Successful Intelligence
- Teaching for Successful Intelligence
- Research Support
- Caution
- Conclusions

Global Mission of Presentation

- To demonstrate how to teach and assess students using the theory of successful intelligence—to help all students achieve at an optimal level.

Motivation

- Some students learn well when taught in conventional ways, but others do not. They are intelligent, but not in the usual way. The goal of teaching should be to reach **all** students.

The Problem

- When we do not teach to all students, we risk creating self-fulfilling prophecies that doom certain students to mediocrity who could be good or even excellent achievers.

The Concept of Successful Intelligence

We need a concept of intelligence and learning skills that is broader than the conventional concept. Successful intelligence is such a concept.

The Concept of Successful Intelligence

Successful intelligence is

- the ability to achieve success in life, given one's personal standards, within one's sociocultural context;

The Concept of Successful Intelligence

- in order to adapt to, shape, and select environments;

The Concept of Successful Intelligence

- via recognition of and capitalization on strengths and remediation of or compensation for weaknesses;

The Concept of Successful Intelligence

- through a balance of analytical, creative, and practical abilities.

Motivation for “Triarchy of Abilities”

- Alice:
  - A student high primarily in memory and analytical abilities
- Barbara:
  - A student high primarily in creative abilities

Motivation for “Triarchy of Abilities”

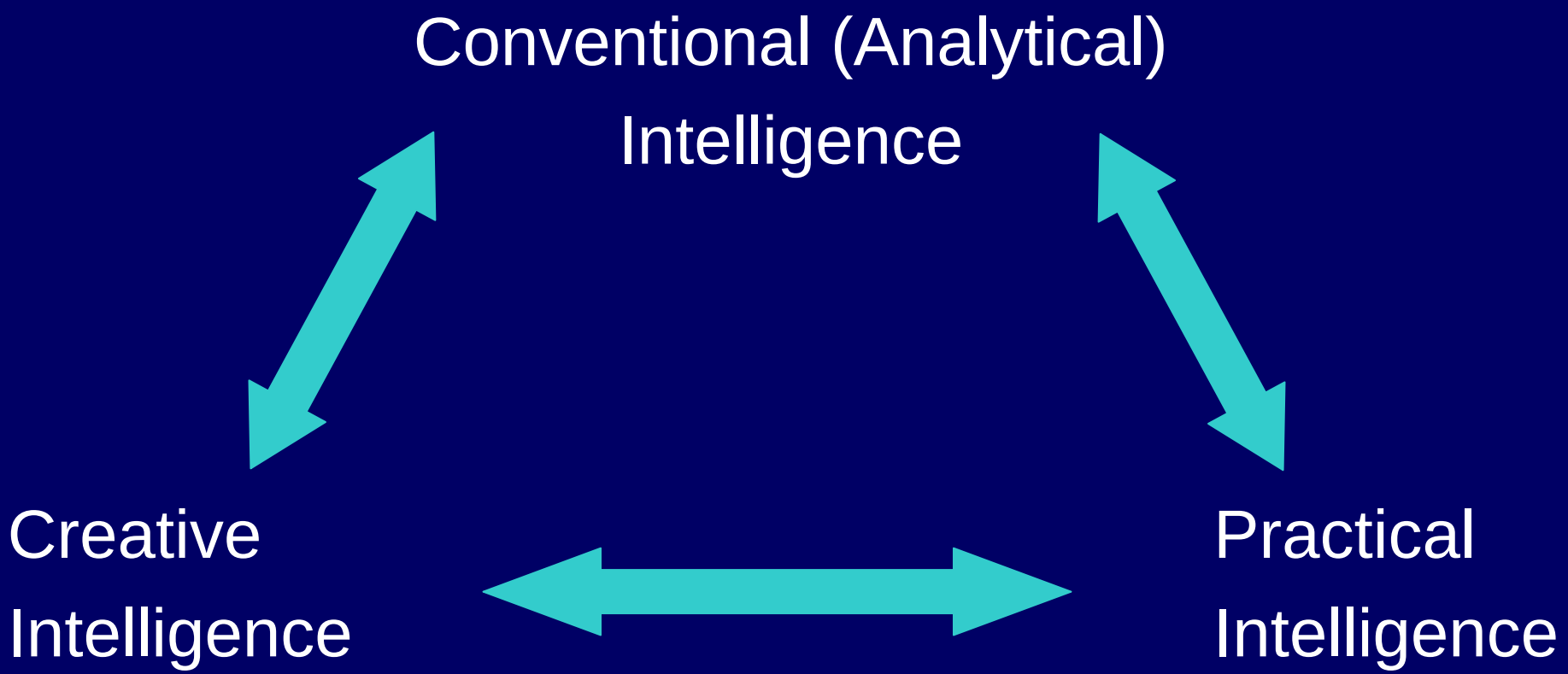
- Celia:
  - A student high primarily in practical abilities
- Paul:
  - A student high in analytical and creative abilities but low in practical abilities

The Triarchic View of Intelligence

There are three aspects of intelligence:

- *analytical*
- *creative*
- *practical*

The Concept of Successful Intelligence



The Linkage

- You need *creative* skills to come up with ideas.
- You need *analytical* skills to evaluate whether they are good ideas.
- You need *practical* skills to implement the ideas and convince others of their value.

Bases for Achievement

- Learning and thinking skills
- Learning and thinking dispositions

Instructional and Assessment Techniques

- Balanced use of instruction and assessment that is
  - –Memory-Based
  - –Analytically-Based
  - –Creatively-Based
  - –Practically-Based

Teaching/Assessing for Memory-Based Learning

- Remember
  - –Recall
  - –Recognize

Teaching/Assessing for Memory-Based Learning

- Who?
- What?
- Where?
- When?
- Why?
- How?

An Example

- Who is the Queen of England?
- What are some other examples?

Analytical Skills

- analyze
- compare and contrast
- evaluate
- explain
- judge
- critique

Analytical Attitude

- *Recognize* existence of problem
- *Define* problem

Analytical Attitude

- *Mentally represent* problem
- *Allocate resources* to problem
- *Formulate strategy* to solve problem

Analytical Attitude

- *Monitor* results of strategy
- *Evaluate* results

Analytical Evaluation

- To what extent is the product
  - Informed?
  - Logical?
  - Organized?
  - Balanced?

An Example

- How are the House of Commons and the House of Lords similar and how are they different?
- What are some other examples?

Creative Skills

- create
- design
- invent
- imagine
- suppose

Creative Attitude

- Redefine problems
- Analyze solutions
- Sell solutions
- Recognize strengths and limits of knowledge

Creative Attitude

- Surmount obstacles
- Take sensible risks
- Attain self-efficacy
- Find what you love to do
- Tolerate ambiguity

Creative Attitude

- Continue to grow
- Maintain a sense of perspective and humor
- Allow time
- Defy the crowd

Evaluation of Creative Products

- To what extent is the product:
  - Informed?
  - Novel?
  - Compelling?
  - Task-appropriate?

An Example

- What would happen if children were paid to go to school?
- What are some other examples?

Practical Skills

- Use
- Apply
- Implement
- Employ
- Contextualize

Practical Attitudes

- Allocate study time effectively
- Find places and times to concentrate
- Relate what you learn to what you know

Practical Attitudes

- Work toward a concrete goal
- Know how and when you will be assessed
- Look for uses in what you learn

Practical Attitudes

- Relate what you learn to what you know
- Make it interesting
- Use visual imagery and other mnemonics

Evaluation of Practical Products

- To what extent is the product:
  - Informed?
  - Feasible with respect to time and place?
  - Feasible with respect to human resources?
  - Feasible with respect to material resources?

An Example

- What should you do when a bully picks on you?
- What are some other examples?

Principles of Teaching for Successful Intelligence

- The goal of instruction is the development of expertise through the creation of a well and flexibly organized, easily retrievable knowledge base

Principles of Teaching for Successful Intelligence

- Instruction should involve teaching for analytical, creative, and practical thinking as well as for memory learning

Principles of Teaching for Successful Intelligence

- Assessment should also involve analytical, creative, and practical as well as memory components

Principles of Teaching for Successful Intelligence

- Instruction and assessment should enable students to:
  - Identify and capitalize on strengths
  - Identify and correct or compensate for weaknesses

Applications of the Concept of Successful Intelligence: Triarchic Teaching

Advantages of Triarchic Teaching

- Enables students to capitalize on strengths and remediate or compensate for weaknesses
- Enables students to encode learning material more deeply and elaborately

Applications of the Concept of Successful Intelligence: Triarchic Teaching

Advantages of Triarchic Teaching

- Enables students to encode learning material in multiple ways
- Motivates students more strongly
- Prepares students better for actual job requirements

Excuses and Responses

- Tests only measure rote recall
- These methods are only for strong students
- These methods are only for students

Excuses and Responses

- Teachers should teach only in ways that are comfortable for them
- It takes too long
- It’s too complicated

Applications of the Concept of Successful Intelligence

- When we teach for successful intelligence, student achievement increases

The Triarchic Aptitude-Instruction Interaction Study

- When students are taught in a way that matches their pattern of strengths at least some of the time, they perform better than when they are not so taught

The Triarchic Science-Social Studies Main-Effects Study

- Students (in grades 3 and 8) who are taught triarchically (for social studies and science) outperform students who are taught either primarily for critical thinking or primarily for memory, regardless of how the students are assessed (I.e., for memory or for analytical, creative, or practical achievement)

The Triarchic Reading Study

- When working-class students of ages 11-17 are taught reading across the curriculum, triarchically taught students outperform students taught conventionally in vocabulary and reading-comprehension measures, regardless of the form of assessment used

The Triarchic Language Arts and Math Study

- When 9- and 10-year-old students were taught triarchically, they performed better, in general, than when they were primarily taught for critical thinking or for memory.

The Triarchic Mathematics Study

- When Alaskan Yup'ik (Native American) teenage students are taught geometry concepts triarchically, they outperform students who are taught the same concepts conventionally, regardless of the form of assessment used

Caution: People Can Be Smart but Unwise

- The “Unrealistic-Optimism” Fallacy
- The Egocentrism Fallacy
- The Omniscience Fallacy
- The Omnipotence Fallacy
- The Invulnerability Fallacy

Wisdom

- Wisdom is the use of your successful intelligence, creativity, and knowledge for a **common good.** In today's world, we need wisdom more than intelligence.

For Further Information…

- Sternberg, R. J. (1997). *Successful intelligence.* New York: Plume.

- Sternberg, R. J., & Grigorenko, E. L. (2000). *Teaching for successful intelligence.* Arlington Heights, IL: Skylight

For Further Information…

- Sternberg, R. J., & Spear-Swerling, L. (1996). *Teaching for thinking.* Washington, DC: American Psychological Association

Web Sites

- www.yale.edu/pace
- www.yale.edu/rjsternberg

Final Conclusion

When we teach for successful intelligence:

- Individuals are better recognized for and are better able to make use of their talents
- Teachers teach and assess students better, with better results
- Society utilizes rather than wastes the talents of its members

Invitation to Collaborate

- We welcome the opportunity to collaborate with individuals and institutions all over the world. If you are interested in collaborating with us in one of our ongoing projects or in a new project, please contact me at
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