The Torrance Tests of Creative Thinking: Introduction and Classroom Applications
Sarah E. Sumners, Ph.D.
Interim Director
Torrance Center for Creativity and Talent Development
Presented at GAGC, March 14, 2016

Warm-up Activity

Think of possibilities, probabilities, and alternatives. Explore consequences.

- What would happen if...
  - People walked on their hands instead of their feet?
  - What might you do with a warehouse full of...
  - Left-handed gloves?

Torrance’s Interest In Creativity Was Inspired by His Recognition of Something Special in Difficult Individuals

- GA Military College—saw the difficult students as having “something special”
- U.S. Military Survival Training—saw jet aces as having something extra, too.
- Director of the Bureau of Educational Research at the University of Minnesota—opportunity to conduct longitudinal research
Beliefs About the Nature of Creativity

Creativity...
* Can be nurtured
* Is available to all
* Can be measured
  (cognitive abilities indicative of creative thinking can be measured)

Torrance was more interested in the nurturance of creativity, but knew that he had to have a measure of effectiveness

* He developed the eponymous tests of creative thinking
* Thinking Creatively with Pictures and
* Thinking Creatively with Words
* Known as the Torrance Tests of Creative Thinking (TTCT)

The TTCT's do not purport to measure the entire global construct of creativity

Don’t Measure
* Motivation
* Skill
* Opportunity

Do Measure:
* Curiosity,
* Hypothetical thinking
* Imagination
* Emotional expressiveness
* Humor
* Boundary breaking
* Divergent thinking, and
* More
Some Interesting Facts About The Torrance Tests of Creative Thinking

- Created in the 1950s, the scoring has undergone several refinements.
- Same forms of the test used from K through Adulthood; different norms are used to convert the raw scores.
- Re-normed every ten years; the last was in 2008.
- Two parallel forms of each the Verbal and Figural tests (A & B).
- The tests are used around the world and have been translated into about 40 languages.

Published by Scholastic Testing Service,
http://www.ststesting.com/
1.800.642.6787 for ordering or 1.855.532.0787 for scoring information

Longitudinal Studies to Determine Predictive Validity—5 Data Collection Points

1. The 7-year follow-up of high school students
2. The 12-year follow-up of the high school students
3. The 22-year follow-up of elementary school students

Most Recent Longitudinal Studies to Determine Predictive Validity

Results from the Longitudinal Studies

Demonstrate the relationship between TTCT scores on tests administered in early childhood with personal creative achievements as much as 50 years later.

Differences between the TTCT Figural & Verbal

- Drawn responses
- 3 activities
- 30 minutes test time (3 x 10)
- 5 norm-ref and 13 criterion-ref components

- Verbal responses
- 6 activities
- 45 minutes test time (3 x 5)
- (3 x 10)
- 3 scoring components

The verbal and figural measure different creative thinking abilities!

Comparison of One Child's Verbal & Figural Scores on TTCT

<table>
<thead>
<tr>
<th>Activity</th>
<th>Fluency</th>
<th>Flex</th>
<th>Orig</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS-V</td>
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Similarities Between Figural and Verbal TTCTs

- Both are standardized measures of creative strengths
- Both are culture fair
- Both provide an comprehensive score, grade norms, and national percentiles; the figural also has age norms.
- Both have had 40+ years of trial and research
- Use of the TTCT and Other Nontraditional Measures Has Increased the Participation of Minorities in Programs for the Gifted

Thinking Creatively with Words—TTCT-V

Act 1-3: Ask and Guess
Based on one Picture

1. Asking questions about the picture
2. Guessing Causes of the action in the picture
3. Guessing Consequences, immediate or long-term about the picture

Act 4: Product Improvement
The task is to improve a toy so that it is more fun to play with

Act. 5: Unusual Uses
The task is to think of alternative uses for a common object, like a brick.
Hypotheses about an improbable situation

Example:

Just Suppose... we could travel anywhere we want with just a twitch of the nose or blink of the eye. What might happen as a result?

TTCT-V Scoring Components

- Fluency—the number of relevant ideas
- Originality—the unusualness of the ideas
- Flexibility (Shifts)—the variety of ideas; different categories of ideas

Raw Scores are converted to Standard Scores and National Percentiles

Thinking Creatively with Pictures -- TTCT-F

- Alternate forms A & B; K-adult
  3 activities, 10 minutes each, multiple responses
  1) One large stimulus figure
  2) Ten incomplete figures
  3) 2-3 pages of repeated figures
Norm-Referenced Scores on the TTCT-F

- Fluency—the number of relevant ideas
- Originality—the unusualness of the ideas
- Abstractness of titles-verbal measure of expression of idea
- Elaboration—amount of detail
- Resistance to Premature Closure—ability to tolerate ambiguity and stay open

Criterion Referenced Scores on the TTCT-F: Checklist of Creative Strengths

- Emotional expressiveness
- Storytelling articulateness
- Movement or action
- Synthesis of figures
- Expressiveness of titles
- Unusual or internal visualization
- Humor
- Richness or colorfulness of imagery
- Boundary breaking
- Fantasy

Appropriate Uses of the TTCT

- “To promote understanding of the human mind, its functioning and development;
- To assist in the development of individualized instruction;
- To provide additional information for remedial and psychotherapeutic programs;
- To assess the differential aspects of educational materials, programs, curricula, procedures, etc.; and
- To point out potentialities that might otherwise go unnoticed—especially in children from culturally diverse and lower socioeconomic backgrounds.”

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Displaying a positive attitude towards creativity
Modeling creative thinking and behavior
Teaching creative strategies to increase:
  • Fluency
  • Flexibility
  • Originality
  • Elaboration
Creating a safe and resourceful learning environment

How do I promote creativity in my classroom?

Modeling Creative Behavior

• Asking and responding to questions in divergent manner. In
  • Instead of “what is the order of the planets in our solar system?”
  • Try “why or how did the order of our planets come to be?”
  • Or “just suppose the planets were knocked out of order; what
    might be the immediate result and what might happen years
    from now? How would life on Earth be different tomorrow or in
    100 years?”

Spinning a Yarn

Tie varying lengths of different colored yarn together to make a
long piece, then roll it into a ball.
Begin a story and keep telling
until you get to a knot, then pass
the yarn to the next person to
pick up the story where you left
off.
**Encounter Lesson**

Question of…

1. Identity
2. Awareness
3. Isolation
4. Risk or danger
5. Wisdom

Imagine you are a coin

1. What kind of coin are you?
2. What do you see? Hear? Smell? Taste? Feel?
3. You are away from the rest of the coins. Why?
4. You hear a loud noise nearby. What do you think it is?
5. What have you learned about? What would you like to know?

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**Inkblot Activity**

1. Fold the paper in half horizontally and vertically.
2. Then put a few drops of paint, refold paper and press to smear.
3. Number the 4 sides, turning as you do so the number faces you.

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**Inkblot Activity**

1. Turn the page so that the 1 faces you.
2. When I say begin, jot as many things that you can think of that the shape looks like on one or both sides of the number.
3. When I say STOP—stop. Pass the paper to the person on the left.
4. Turn the paper so that the 2 faces you.
5. Repeat.
In Blot: Applications

- Creativity—discuss who had the most
  - Responses (fluency),
  - Unusual response (originality),
  - Detailed response (elaboration),
  - Categories of responses (flexibility)
- Recognize other attributes of creativity such as humor, emotion, fantasy, etc.

In a Perfect World...

- Have students brainstorm as many endings to the above sentence as they can
  - pencils wouldn’t lose their points.
  - cafeteria food would be delicious.
  - everything would be free.
  - people could add memory to their brains.
  - animals would live as long as their owners.
- Then follow up by asking about all of the consequences of any of these things.

Safe and Resourceful Learning Environment

- Children must be comfortable to express their ideas freely and without judgement.
- Teachers must be willing to “permit one thing to lead to another, to embark with the child on an unknown adventure” (Torrance, 1977. p.26).
- Celebrate and recognize the integral part each child plays in the classroom.
- Focus on each child’s creative potential rather than products such as grades that often denote academic achievement.