

**The Torrance Tests of Creative Thinking:
Introduction and Classroom
Applications**

Sarah E. Summers, Ph.D.
Interim Director
Torrance Center for Creativity and Talent Development

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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?

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**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 the Bureau of Educational Research at the University of Minnesota— opportunity to conduct longitudinal research



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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)



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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)



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

<p>Don't Measure</p> <ul style="list-style-type: none"> * Motivation * Skill * Opportunity 	<p>Do Measure:</p> <ul style="list-style-type: none"> * Curiosity, * Hypothetical thinking * Imagination * Emotional expressiveness * Humor * Boundary breaking * Divergent thinking, and * More
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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

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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

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Most Recent Longitudinal Studies to Determine Predictive Validity

- 4. 40-year follow-up:**
 Cramond, B., Matthews-Morgan, J., Bandalos, D., & Zuo, L. (2005). The Torrance Tests of Creative Thinking: Alive and well in the new millennium. *Gifted Child Quarterly*, 49, 283-291.
- 5. 50-year follow-up:**
 Runco, M. A., Millar, G., Acar, S., Cramond, B. (2011) Torrance Tests of Creative Thinking as Predictors of Personal and Public Achievement: A Fifty Year Follow-Up. *Creativity Research Journal*, 22 (4), 361-368.

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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.

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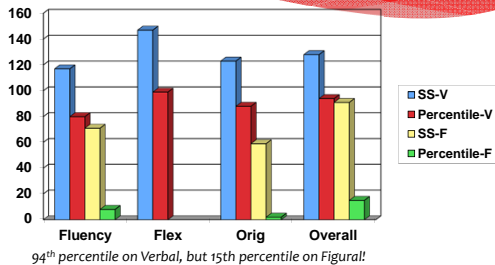
Differences between the TTCT Figural & Verbal

- * 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!

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



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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

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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

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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.




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Act. 6: Just Suppose

Hypotheses about an improbable situation

Example:

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



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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

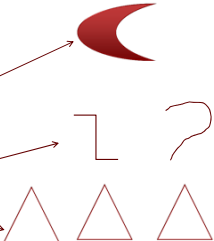
Raw Scores are converted to Standard Scores and National Percentiles

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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



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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

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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

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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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How do I promote creativity in my classroom?

- * 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

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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?”

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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.

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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.

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Inkblot: 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.

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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.

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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.

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