

TORRANCE® TESTS OF CREATIVE THINKING

By E. Paul Torrance

INTERPRETIVE MANUAL

This booklet is a guide for interpreting results of the *Torrance Tests of Creative Thinking (TTCT)*Figural and Verbal, Forms A and B. It contains the following:

Figural

Understanding Figural Assessments of Creativity

- —Separate Norm-Referenced Assessments of Creativity (fluency, originality, abstractness of titles, elaboration, resistance to premature closure)
- —Criterion-Referenced Assessments of Creativity (Checklist of 13 Strengths)
- —Composite Assessments of Creativity (Average Standard Score, Creativity Index)

Sample Reports from STS Scoring Service

- —The Individual Student Report
- —The Alphabetical List Report
- —The Group Summary

Verbal

Understanding Verbal Assessments of Creativity

- —Separate Norm-Referenced Assessments of Creativity (fluency, flexibility, originality)
- —Composite Assessment of Creativity (Average Standard Score)

Sample Reports from STS Scoring Service

- —The Individual Student Report
- —The Alphabetical List Report
- —The Group Summary Report

Understanding Derived Scores Used in Interpretation of Creativity Assessments

- —Percentile Ranks (National by Grade, National by Age, Local)
- -Normalized Standard Scores





UNDERSTANDING FIGURAL ASSESSMENTS OF CREATIVITY

The TTCT Figural provides five separate assessments of creativity—fluency, originality, abstractness of titles, elaboration, and resistance to premature closure. After making these assessments, the scorer looks for evidence of creative strengths, thirteen in all, giving ratings of (+) (for 1 or 2 occurrences) or (++) (typically for 3 or more occurrences). Two composite assessments of creativity are then given, the "average" from the 5 separate assessments, and the Creativity Index (CI) based upon a pooling of results from the separate assessments along with ratings from special creative strengths.

SEPARATE NORM-REFERENCED ASSESSMENTS OF CREATIVITY—the following discussions are intended to help understand the five separate assessments of creativity.

- Fluency—this score is based upon the total number of relevant responses. As such, it is perhaps one of the most critical aspects of the test. All other scores depend in part upon the fluency score inasmuch as no subsequent scores may be given in other dimensions unless a response is first found to be relevant.
- Originality—this score is based upon the statistical infrequency and unusualness of the response.

 As such it indicates whether a student produced a large number of relatively trite, common responses (low originality) or unusual and highly imaginative responses (high originality).

 Combining two or more figures into a single image is given increased weight.
- Abstractness of Titles—this score relates to the subject's synthesizing and organizing processes of thinking. At the highest level, there is the ability to capture the essence of the information involved, to know what is important, and to enable the viewer to see the picture more deeply and richly.
- **Elaboration**—the basis of this score is two underlying assumptions: the minimum primary responses to the stimulus figure is a single response; and the imagination and exposition of detail is a function of creative ability, appropriately labeled elaboration.
- Resistance to Premature Closure—the basis for this score is a person's ability to keep open and delay closure long enough to make the mental leap that makes original ideas possible. Less creative persons tend to leap to conclusions prematurely without considering the available information, which cuts off chances for more powerful, original images.

CRITERION-REFERENCED ASSESSMENTS OF CREATIVITY—the preceding assessments are all norm-referenced, and constitute the primary bases for assessment of creativity. An added thirteen criterion-referenced measures are useful for a more complete overall assessment. These thirteen measures, each yielding scores of (0), (1), or (2), are subsequently pooled with the norm-referenced assessments to provide an overall "Creativity Index." This checklist of creative strengths consists of the following:

- 1. **Emotional Expressiveness**—this measures a subject's ability to communicate feelings and emotions verbally or nonverbally through drawings, titles, and speech of the figures in the drawings.
- **2. Storytelling Articulateness**—this indicates a subject's ability to clearly and powerfully communicate an idea or tell a story by providing some kind of environment and sufficient detail to put things in context.
- 3. Movement or Action—this judges a person's perception of movement through titles and the speech and bodily posture of figures in the drawings.
- **4. Expressiveness of Titles**—this notes a person's use of titles that go beyond simple description and communicate something about the pictures that the graphic cues themselves do not express without the title.
- 5. Synthesis of Incomplete Figures—the combination of two or more figures is quite rare and points out an individual whose thinking departs from the commonplace and established, who is able to see relationships among rather diverse and unrelated elements, and who, under restrictive conditions, utilizes whatever freedom is allowed.
- **6. Synthesis of Lines** (Form A: **Circles**, Form B)—same as 5 above, except combination of sets of parallel lines or combination of circles.
- **7. Unusual Visualization**—this measure points out an individual who sees things in new ways as well as old ways and who can return repeatedly to a commonplace object or situation and perceive it in different ways.
- **8. Internal Visualization**—this measure indicates that a subject is able to visualize beyond exteriors and pay attention to the internal, dynamic workings of things.
- **9. Extending or Breaking Boundaries**—this score suggests that a person is able to remain open long enough to permit the mind to make mental leaps away from the obvious and commonplace and to open up or extend the boundaries or limits imposed upon the stimulus figure.
- **10. Humor**—this score suggests that an individual perceives and depicts conceptual and perceptual incongruity, unusual combinations, and surprise.
- **11. Richness of Imagery**—this score reflects a subject's ability to create strong, sharp, distinct pictures in the mind of the beholder.
- 12. Colorfulness of Imagery—this score reflects a subject's ability to excite and appeal to the senses.
- 13. Fantasy—this measure notes a person's use of fantasy imagery in responding to the test tasks.

COMPOSITE ASSESSMENTS OF CREATIVITY—some uses of the TTCT require an overall assessment of creativity. The TTCT Figural provides two such measures: the Average Standard Score and Creativity Index. (See page 5 for a detailed explanation.)

FIGURAL Individual Student Report*



Individual Student Report

Torrance® Tests of Creative Thinking (TTCT)
Figural Streamlined, Form A
SAMPLE SCHOOL

Date: 08/18/2018 Grade: 17 Section: 1

Scholastic Testing Service, Inc.

Allen, Abigail

Age: 23 years

ProcNo: 12345

Gender: F

Codes:

Profile of Creative Thinking Scores

Standard scores are provided for total scores in each of the dimensions of creativity assessed by the TTCT. Separate by grade, standard scores are reported on a scale with a mean of 100 and a standard deviation of 20. In the profile below, percentile ranks associated with such standard scores in a normal distribution are given to serve as interpretive guidelines. Local percentile ranks have also been provided for ready comparisons within your group.

Following is the profile for Abigail. While it is logical to focus upon the average, it is important to consider all scores, to see what they tell about the creative potential of Abigail.

		AGE-I	BASED	GRADE-BASED			
Creativity	Raw	Natl	Std	Local	Natl	Std	Standard Score Scale for Grade
Dimension	Score	%-ile	Score	%-ile	%-ile	Score	
		Age	Age	Grd	Grd	Grd	60 80 100 120 140
Fluency	22	58	104	30	59	105	
Originality	16	54	102	10	52	101	
Titles	19	97	138	90	97	138	
Elaboration	12	84	120	90	85	121	
Resistance to Premature Closure	16	73	112	50	73	112	
Average		86	115	60	85	115	

**

Checklist of Creative Strengths

After regular scoring, scorers review each booklet for evidence of special creative strengths. A rating of ** is given for repeated evidence of a strength (usually 3 or more times); a rating of * is given for some evidence (usually 1 or 2 times); and a blank is given in the absence of evidence. A blank need not mean absence of strength, but rather absence of evidence of the strength in these figures. Ratings on creative strengths for Abigail are to the right.

- * Emotional Expressiveness (in drawings, titles)
 - Storytelling Articulateness (context, environment)
- ** Movement or action (running, dancing, flying, falling, etc.)
 Expressiveness of Titles
 - Synthesis of Incomplete Figures (combination of 2 or more) Synthesis of Lines (form A) or Circles (form B) (Combinations)
- * Unusual Visualization (above, below, at angle, etc.)
- * Internal Visualization (inside, cross section, etc.)
- ** Extending or Breaking Boundaries
- ** Humor (in titles, captions, drawings, etc.)
- ** Richness of Imagery (variety, vividness, strength, etc.)
- ** Colorfulness of Imagery (excitingness, earthiness, etc.)
 - Fantasy (figures in myths, fairy tales, science fiction, etc.)

The Creativity Index

An index, found to serve well as an overall indicator of creative potential, is found by pooling the creative strength ratings and the average standard score from the profile. The index for Stormy is to the right.

AGE: Creativity Index: 133 Natl %-ile: 89

GRADE: Creativity Index: 133 Natl %-ile: 89

Part-Score Information

Total scores are usually sufficient for the TTCT. For those wishing more detail, raw scores for each dimension within each activity are to the right.

	Activity 1	Activity 2	Activity 3
Fluency		10	12
Originality	1	6 *()	9 *()
Titles	_2		
Elaboration			

* (Bonus is included in Originality Totals)

- Average Standard Score—each of the five norm-referenced assessments are reported in terms of a standard score. This enables the averaging of these standard scores to obtain a score reflecting the assessment based upon the pooling of the norm-referenced assessments.
- "Creativity Index"—scores from the thirteen criterionreferenced indicators are added to the above average standard score to provide the Creativity Index. This index is perhaps the best measure to reflect the overall level of creativity.

SAMPLE REPORTS FROM STS SCORING SERVICE

The **Individual Student Report** is the basic report form and is provided for all individuals whose response booklets are scored at the STS Scoring Center. For the TTCT Figural it is divided into four sections: A) A Profile of Creative Thinking Scores, B) A Checklist of Creative Strengths, C) The Creativity Index, and D) Part-Score Information. An interpretation of the dimensions of creativity assessed, along with an understanding of the derived measures provided for each, are fully described in the first two parts of this manual.

Individual Student Report

Torrance® Tests of Creative Thinking (TTCT)
Figural Streamlined, Form A

SAMPLE SCHOOL ProcNo: 12345 Date: 01/27/2018 Grade: 7 Section: 1

Scholastic Testing Service, Inc.

Farmer, Aiden Age: 12 years Gender: M Codes:

Profile of Creative Thinking Scores

Standard scores are provided for total scores in each of the dimensions of creativity assessed by the TTCT. Separate by grade, standard scores are reported on a scale with a mean of 100 and a standard deviation of 20. In the profile below, percentile ranks associated with such standard scores in a normal distribution are given to serve as interpretive guidelines. Local percentile ranks have also been provided for ready comparisons within your group.

Following is the profile for Aiden. While it is logical to focus upon the average, it is important to consider all scores, to see what they tell about the creative potential of Aiden.

		AGE-	BASED	GRADE-BASED		SED	
Creativity	Raw	Natl	Std	Local	Natl	Std	Standard Score Scale for Grade
Dimension	Score	%-ile	Score	%-ile	%-ile	Score	
		Age	Age	Grd	Grd	Grd	60 80 100 120 140
Fluency	37	97	138	92	98	141	
Originality	29	97	138	92	98	141	
Titles	8	46	98	42	46	98	
Elaboration	8	36	93	33	35	92	
Resistance to Premature Closure	20	99	147	92	99	147	
Average		96	123	92	95	124	

Checklist of Creative Strengths

After regular scoring, scorers review each booklet for evidence of special creative strengths. A rating of ** is given for repeated evidence of a strength (usually 3 or more times); a rating of * is given for some evidence (usually 1 or 2 times); and a blank is given in the absence of evidence. A blank need not mean absence of strength, but rather absence of evidence of the strength in these figures. Ratings on creative strengths for Aiden are to the right.

- Emotional Expressiveness (in drawings, titles)
- ** Storytelling Articulateness (context, environment)
- * Movement or action (running, dancing, flying, falling, etc.)
- * Expressiveness of Titles
 - Synthesis of Incomplete Figures (combination of 2 or more)
 - Synthesis of Lines (form A) or Circles (form B) (Combinations)
- ** Unusual Visualization (above, below, at angle, etc.)
- * Internal Visualization (inside, cross section, etc.)
- ** Extending or Breaking Boundaries
- Humor (in titles, captions, drawings, etc.)
- ** Richness of Imagery (variety, vividness, strength, etc.)
- ** Colorfulness of Imagery (excitingness, earthiness, etc.)
- * Fantasy (figures in myths, fairy tales, science fiction, etc.)

The Creativity Index

An index, found to serve well as an overall indicator of creative potential, is found by pooling the creative strength ratings and the average standard score from the profile. The index for Aiden is to the right.

AGE: Creativity Index 138 Natl %-ile: 95

GRADE: Creativity Index 139 Natl %-ile: 95

Part-Score Information

Total scores are usually sufficient for the TTCT. For those wishing more detail, raw scores for each dimension within each activity are to the right.

	Activity 1	Activity 2	Activity 3
Fluency		10	27
Originality	1	8 *()	20 *()
Titles	1	7	
Elaboration	2	3	3
Closure		20	

* (Bonus is included in Originality Totals)

The **Alphabetical List Report** offers a concise record of the test scores for each individual within the class, giving all of the information provided for each on the Individual Student Report in an abbreviated manner. The report enables more comparisons among the individuals in the class.

Torrance® Tests of Creative Thinking (TTCT) **Alphabetical** Date: 01/27/2016 Figural Streamlined, Form A **List Report** Grade: 7 SAMPLE SCHOOL ProcNo: 12345 Section: 1 Scholastic Testing Service, Inc. AGE-BASED **GRADE-BASED** Elaboration Resistance to Closure SS NP SS NP Fluency Originality Titles Average Creativity Index Creativity Index SS SA NA IDX NP for Grade: NP Name NA NA LP SA SAChecklist of Strengths for Age SA NA SA NA NA SA NA Codes GenderÄge Grade: 7 Section: 1 Allen М * * * * * * Drew Farmer * * * * * * * Aiden * * * * 100 47 Miller F Tanya Sanchez * * * * Aaron 2.5 Wei F 2.1 * * * * Lisa 2.5 113 82 West * * * * * * * * * *

Number of Students in Section 1 = 6

17 75

10 58

RS=Raw Score LP=Local %-ile SS=Standard Score-Grade SA=Standard Score-Age

13 22 58

16 58

11 75

NP=National %-ile-Grade NA=National %-ile-Age

Run#: T65-52534- 3

The **Group Summary Report** contains frequency distributions, means, and standard deviations for standard scores, as well as standard deviations for all TTCT scores, and for all individuals on the class list. The summary provides a quick overview of the performance of the class as a whole.

Group Summary Report Torrance® Tests of Creative Thinking (TTCT) Figural Streamlined, Form A SAMPLE SCHOOL

ProcNo: 12345

Date: 01/27/2016 Grade: 7

Scholastic Testing Service, Inc.

GRADE SUMMARY FOR: GRADE 7, FORM A

FREQUENCY DISTRIBUTION
Group Summary Statistics (Standard Score)

Score Intervals		iency 'ercentage	_	ginality Percentage		tles ercentage		oration ercentage		osure Percentage		erage ercentage	In	ativity dex ercentage
150+	0	0%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%
140-149	1	17%	1	17%	0	0%	0	0%	1	17%	0	0%	0	0%
130-139	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	33%
120-129	0	0%	0	0%	1	17%	1	17%	1	17%	1	17%	1	17%
110-119	2	33%	2	33%	1	17%	1	17%	1	17%	2	33%	1	17%
100-109	1	17%	1	17%	1	17%	1	17%	0	0%	1	17%	1	17%
90-99	1	17%	0	0%	1	17%	2	33%	2	33%	1	17%	0	0%
80-89	1	17%	2	33%	1	17%	0	0%	1	17%	0	0%	1	17%
70-79	0	0%	0	0%	0	0%	1	17%	0	0%	1	17%	0	0%
60-69	0	0%	0	0%	1	17%	0	0%	0	0%	0	0%	0	0%
50-59	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
<50	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Mean	1	08.2	10)5.8	98	8.0	10	00.3	11	0.2	10-	4.7	117	'.3
Stan.Dev.	2	20.5	2	2.1	2	1.5	1	8.2	22	2.9	16	5.3	19	.8

NUMBER OF STUDENTS = 6

Freq=Frequency

Stan.Dev.=Standard Deviation

Run#: T65-52534- 1

UNDERSTANDING VERBAL ASSESSMENTS OF CREATIVITY

The TTCT Verbal provides three separate assessments of creativity, along with a composite based upon the average of the separate assessments.

SEPARATE NORM-REFERENCED ASSESSMENTS OF CREATIVITY—consist of the following three assessments.

Fluency—this score reflects the subject's ability to produce a large number of ideas with words. Each verbal task attempts to tap a somewhat different ability or mental process. Further clues concerning the subject's mental functioning may be obtained by looking at each of the subject's responses.

Flexibility—this score represents a person's ability to produce a variety of ideas, shift from one approach to another, or use a variety of strategies. A low score indicates a narrow range of responses, which may be the result of rigid thinking habits, limited knowledge and/or experience, limited intellectual energy, and/or low motivation. Generally, an opposite interpretation of high scores would be hypothesized. However, extremely high flexibility scores in relation to fluency scores may characterize the person who jumps from one approach to another and is unable to stick to one line of thinking long enough to really develop it. A person may be quite flexible in viewing, manipulating, and otherwise using figural elements, yet be quite restricted in shifting approaches in dealing with words.

Originality—this score represents the subject's ability to produce ideas well beyond the obvious, commonplace, banal, or established. A high score requires an ability to delay gratification or to reduce tension, and usually indicates a nonconforming person with a lot of intellectual energy. Such a person is able to make big mental leaps or "cut corners" in obtaining solutions but is not necessarily erratic or impulsive. Anchors to interpretation can be derived by looking at the originality score in relation to the fluency score.

COMPOSITE ASSESSMENT OF CREATIVITY—some uses of the TTCT require an overall assessment of creativity. The TTCT Verbal provides one such measure—the Average Standard Score. (See page 10 for a detailed explanation.)

VERBAL Individual Student Report*



Individual Student Report

Torrance® Tests of Creative Thinking (TTCT) Verbal. Form A

SAMPLE SCHOOL ProcNo: 12345 Date: 08/18/2018 Grade: 17

Section: 1

Scholastic Testing Service, Inc.

Allen, Abigail

Age: 23 years

Gender: F

Codes:

Profile of Creative Thinking Scores

Both Grade-based and Age-based norms are provided for the TTCT. Grade-based norms typically serve as the primary source for score interpretation, with Age-based norms available for some specialized uses. The discussions on this report focus upon Grade-based norms. Standard scores are provided for total scores in each of the dimensions of creativity assessed by the TTCT. Standard scores are reported on a scale with a mean of 100 and a standard deviation of 20. In the profile below, percentile ranks associated with such standard scores in a normal distribution are given to serve as interpretive guidelines. Local percentile ranks have also been provided for ready comparisons within your group. Following is the profile for Abigail.

		AGE-E	BASED	GR	ADE-BA	SED	
Creativity	Raw	Natl	Std	Local	Natl	Std	Standard Score Scale for Grade
Dimension	Score	%-ile	Score	%-ile	%-ile	Score	
		Age	Age	Grd	Grd	Grd	60 80 100 120 140
Fluency	165	98	141	90	99	147	
Flexibility	70	99	148	90	99	147	
Originality	131	99	149	90	99	150	
Average		99	146	90	99	148	

General Interpretive Guides

The average standard score might be used as a general measure of creative potential. In the above profile for Abigail, the evidence of creative potential is very strong (ranking among the top 01% of others in grade).

While it is logical to focus upon the average, it is important to consider all scores. The amount of emphasis given to the profile of scores is somewhat dependent upon the spread of scores. The range of standard scores of 4 points for Abigail can be considered limited.

Fluency is perhaps one of the critical scores, since other scores are dependent upon a student giving relevant responses. However, a person may produce a large number of common and uninteresting responses. Similarly, a person may use energy in producing only a few, but very unusual and/or well elaborated responses. Only a consideration of the total profile can provide such differential information.

It is important to emphasize that the best approach to using results is to search for a person's strengths. One can build on strengths; strong areas can be called upon to buttress weak parts.

Part-Score Information

Total scores are usually sufficient for the TTCT. For those wishing more detail, raw scores for each dimension within each activity are given below:

	Activity 1	Activity 2	Activity 3	Activity 4	Activity 5	Activity 7
Fluency	25	22	25	30	42	21
Flexibility	13	6	9	8	14	20
Originality	19	21	22	24	30	15

Average Standard Score—scores from the separate assessments are converted to standard scores. This allows computing an "average" of the standard scores to serve as a single composite assessment. The use of standard scores results in an average that weights the separate assessments equally.

SAMPLE REPORTS FROM STS SCORING SERVICE

The **Individual Student Report** is the basic report form and is provided for all individuals whose test booklets are scored within our center. For the TTCT Verbal it is divided into three sections: A) A Profile of Creative Thinking Scores, B) General Interpretive Guides, and C) Part-Score Information. An interpretation of the dimensions of creativity assessed, along with an understanding of the derived measures provided for each, are fully described in the first two parts of this manual.

Individual Student Report

Torrance® Tests of Creative Thinking (TTCT) Verbal, Form A

SAMPLE SCHOOL ProcNo: 12345 Date: 01/27/2016 Grade: 7 Section: 1

Scholastic Testing Service, Inc.

Farmer, Aiden Age: 12 years Gender: M Codes

Profile of Creative Thinking Scores

Both Grade-based and Age-based norms are provided for the TTCT. Grade-based norms typically serve as the primary source for score interpretation, with Age-based norms available for some specialized uses. The discussions on this report focus upon Grade-based norms. Standard scores are provided for total scores in each of the dimensions of creativity assessed by the TTCT. Standard scores are reported on a scale with a mean of 100 and a standard deviation of 20. In the profile below, percentile ranks associated with such standard scores in a normal distribution are given to serve as interpretive guidelines. Local percentile ranks have also been provided for ready comparisons within your group. Following is the profile for Aiden.

		AGE-B	SASED	GR	ADE-BA	SED	
Creativity	Raw	Natl	Std	Local	Natl	Std	Standard Score Scale for Grade
Dimension	Score	%-ile	Score	%-ile	%-ile	Score	
		Age	Age	Grd	Grd	Grd	60 80 100 120 140
Fluency	139	94	131	92	92	128	
Flexibility	52	86	122	92	82	118	
Originality	111	98	141	83	97	138	
Average		95	131	92	93	128	

General Interpretive Guides

The average standard score might be used as a general measure of creative potential. In the above profile for Aiden, the evidence of creative potential is strong (ranking among the top 07% of others in grade).

While it is logical to focus upon the average, it is important to consider all scores. The amount of emphasis given to the profile of scores is somewhat dependent upon the spread of scores. The range of standard scores of 21 points for Aiden can be considered considerable.

Fluency is perhaps one of the critical scores, since other scores are dependent upon a student giving relevant responses. However, a person may produce a large number of common and uninteresting responses. Similarly, a person may use energy in producing only a few, but very unusual and/or well elaborated responses. Only a consideration of the total profile can provide such differential information.

It is important to emphasize that the best approach to using results is to search for a person's strengths. One can build on strengths; strong areas can be called upon to buttress weak parts.

Part-Score Information

Total scores are usually sufficient for the TTCT. For those wishing more detail, raw scores for each dimension within each activity are given below:

	Activity 1	Activity 2	Activity 3	Activity 4	Activity 5	Activity 7
Fluency	14	12	17	34	47	15
Flexibility	6	6	4	9	13	14
Originality	7	11	14	26	43	10

(2/16/2016 T65-52534-5)

The **Alphabetical List Report** offers a concise record of the test scores for each individual within the class, giving all of the information provided for each on the Individual Student Report in an abbreviated manner. The report enables more comparisons among the individuals in the class.

Alphabetical List Report

Torrance® Tests of Creative Thinking (TTCT)
Verbal, Form A

SAMPLE SCHOOL ProcNo: 12345 Date: 01/27/2016 Grade: 7 Section: 1

Scholastic Testing Service, Inc.

					AGE-	BASE	ED NO	RMS				(GRAD	E-BA	SED N	ORM:	S	
			Flue	-	l .		Origi		Ave	_	Flue	-			Origi	•	Ave	-
Name	Codes	Age Gender	SA	NA	SA	NA	SA	NA	SA	NA	SS RS	NP LP	SS RS	NP LP	SS RS	NP LP	SS	NP LP
				•••••							٠		L	• • • • • • • • • • • • • • • • • • • •	4			•••••
Grade: 7	Section: 1																	
Allen	Drew	13	93	37	102	54	110	69	101	52	91	33	102	54	108	65	100	50
		M									71	42	42	42	53	42		42
Farmer	Aiden	12	131	94	122	86	141	98	131	95	128	92	118	82	138	97	128	93
		М									139	92	52	92	111	83		92
Miller	Tanya	13	80	16	84	22	87	26	83	19	79	15	83	20	84	21	82	17
		F									53	8	32	17	27	8		8
Sanchez	Aaron	12	84	22	84	22	109	67	92	34	82	19	83	20	105	60	90	30
		М									58	25	32	17	49	25		25
Wei	Lisa	12	108	65	115	78	124	88	115	79	104	58	112	72	120	84	112	73
		F									90	58	48	58	73	58		58
West	Brian	13	126	90	115	78	138	97	126	92	125	89	115	78	138	97	126	92
		М			<u> </u>						132	75	50	75	110	83		75

Number of Students in Section 1 = 6

RS=Raw Score LP=Local %-ile SS=Standard Score-Grade SA=Standard Score-Age NP=National %-ile-Grade NA=National %-ile-Age

Run#: T65-52534- 3

The **Group Summary Report** contains frequency distributions, means, and standard deviations for standard scores, as well as standard deviations for all TTCT scores, and for all individuals on the class list. The summary provides a quick overview of the performance of the class as a whole.

Group Summary Report Torrance® Tests of Creative Thinking (TTCT)
Verbal, Form A
SAMPLE SCHOOL

Date: 01/27/2016 Grade: 7

Scholastic Testing Service, Inc.

ProcNo: 12345

GRADE SUMMARY FOR: GRADE 7, FORM A

FREQUENCY DISTRIBUTION
Group Summary Statistics (Standard Score)

Score	F1	uency	Fle	xibility	Ori	ginality	Av	/erage	
Intervals	Freq.	Percentage	Freq.	Percentage	Freq.	Percentage	Freq.	Percentage	
150+	0	0%	0	0%	0	0%	0	0%	
140-149	0	0%	0	0%	0	0%	0	0%	
130-139	0	0%	0	0%	2	33%	0	0%	
120-129	2	33%	0	0%	1	17%	2	33%	
110-119	0	0%	3	50%	0	0%	1	17%	
100-109	1	17%	1	17%	2	33%	1	17%	
90-99	1	17%	0	0%	0	0%	1	17%	
80-89	1	17%	2	33%	1	17%	1	17%	
70-79	1	17%	0	0%	0	0%	0	0%	
60-69	0	0%	0	0%	0	0%	0	0%	
50-59	0	0%	0	0%	0	0%	0	0%	
<50	0	0%	0	0%	0	0%	0	0%	
Mean	101.5		102.2			115.5	106.3		
Stan.Dev.	:	21.2	:	15.8		20.9	18.9		

NUMBER OF STUDENTS = 6

Freq=Frequency Stan.Dev.=Standard Deviation Run#: T65-52534- 1

UNDERSTANDING DERIVED SCORES USED IN INTERPRETATION OF CREATIVITY ASSESSMENTS

Interpretation of attained scores from any measuring instrument generally requires the use of "derived" or "normative" scores allowing some kind of comparison of performance within some defined group. This is true for the TTCT Figural and Verbal assessments of various dimensions of creativity, where two types of comparisons are made, involving three distinct defined groups.

PERCENTILE RANKS—percentile ranks indicate the ranking of a student's score when compared with scores of other individuals in a defined group. The ranking is expressed in terms of a percent; thus, a percentile rank of 60 means that the individual's score exceeded that of 60 percent of those of other members of the group.

This kind of comparison is provided for three distinct groups of individuals who have taken the tests.

- 1. A national sample of students in various grades, enabling comparisons of any student with performance of others of the same grade in a national sample. This type of derived score is referred to as a "grade-based national percentile."
- 2. A national sample of students of various chronological ages, enabling comparisons of any student with performance of others of the same age in a national sample. This type of derived score is referred to as an "age-based national percentile."
- 3. Other individuals in the same grade attending the same school as the testee, allowing comparisons of any student with performance of others in the same "local" school. This type of derived score is referred to as a "local percentile."

(NORMALIZED) STANDARD SCORES—normalized standard scores are directly derived from percentile ranks and provide a score appropriate for use with various statistical procedures (averaging, correlating, and the like). The TTCT uses a normalized standard score having a mean (center) of 100, with a standard deviation of 20.

Normalized standard scores are developed for each of the three types of comparison groups. These include:

- 1. national sampling by grade,
- 2. national sampling by age, and
- 3. local in-grade.

In-Grade comparisons (local and national) are perhaps more frequently used. However, there are instances in which in-age comparisons are a useful supplement.