## Measuring Small Group Creativity in Pre-Service Music Teacher Education Clint Randles, Assistant Professor of Music Education, Center for Music Education Research, University of South Florida

Csikszentmihalyi (1996)	Abstract Random (AR) Imaginative			Ind. Comp. Creativity Ind. Comp. Craft.	3.81 1. 3.82 0.			1.80	6.00	
<i>imart</i> —But, naïve at the same time.	Imaginative					3.80	1.60/3.80	2.40	6.00	
Rebellious and independent.	Interpretive Emotional	Group work Role-playing Communication	Association Performing Counseling	Group Creativity Group Crayt.	3.96 0. 4.02 0.	0.27 4.00		3.60 3.60	4.40 4.40	0
	Intuitive Holistic	Multi-media approach Personalized example	Interpreting Writing Invagining	Learning Style Abstract Random	27.43 €	5.07 28.0	0 28.00	16.00	38.00	23
rest.	Concrete Random (CR)	merviewing	magning	Concrete Random	26.09 4	49 26.0	26.00/29.00	16.00	35.00	15
Openness and sensitive to experience.	Divergent Experiential	Brainstorming Simulations	Editing Reorganizing	Abstract Sequential Concrete Sequential						
Do not conform to traditional gender role stereotyping.	Inventive Independent	Trial and error Experiments	Processing Creating	Audiotion	56 Q1 1	173 510	35 00/78 00	22.00	\$2.00	6
A combination of both playful and disciplined—Able to	Problem solver	Alternative solutions Exploring	Inventing Recommending	Tonal						
be carried away by imagination, and yet rooted in reality, at the same time.	Intellectual	Lecture Text	Outline Report	Trs. in Bond Trs. in Choir	2.65 3.	1.97 1.00	0.00/1.00	0.00	14.00	1
Remarkably humble and yet proud at the same time.	Theoretical Clinical	Content mastery Reporting	Hypothesize Verify	Trs. in Jazz Band Trs. in Show Chair	2.39 3.	k.01 2.00	0.00	0.00		
Passionate about their work, but also quite objective.	Structured	Problem solving Extensive research	Summarize Critique	Acapella Rock Band						8 2
Introverted and Extroverted, at the same time.	Organized	Hands-on	Sorting	Charch Band Guitar Exp.					6.00 4.00	6 4
	Factual Efficient	Data gathering	Constructing	Pamo Esp. Computer Munic Esp.	1.30 1.	1.61 1.00	0.00	0.00	5.00	5
	Detailed Linear thinking	Drill and practice Practical problems	Measuring Building	Trs. Composed Masse Trs. Written Songs						5.
Pre	one one one of sensitive to experience. o not conform to traditional gender role stereotyping. combination of both playful and disciplined—Able to carried away by imagination, and yet rooted in reality, the same time. markably humble and yet proud at the same time. assionate about their work, but also quite objective.	Concrete Random (CR)     Divagent     D	att         Concrete Ramadom (CR)           permess and sensitive to experience.         Simulations           o not corform to traditional gender role sterotyping.         Experiential         Simulations           combination of both playful and disciplined—Able to carried away bitmagnation, and yet rooted in reality, the same time.         Simulational         Experiential         Experiential           markably humble and yet proud at the same time.         Convergent         Abover Sequential (AS)         More Sequential (AS)           traversteed and Extroverted, at the same time.         Convergent         Convergent         Polem solver           Torested and Extroverted, at the same time.         Convergent         Convergent         Convergent           Detailed         Domestion         Convergent         Polem solver         Convergent           Detailed         Distribute         Convergent         Convergent         Convergent           Convergent         Convergent         Polem solver         Convergent         Convergent           Convergent         Convergent         Polem solver         Status         Convergent           Convergent         Convergent         Convergent         Convergent         Convergent           Convergent         Convergent         Convergent         Convergent         Convergent	and         Concrete Random (CR)         Second Sensitive In Second Sensitive In Second Second Second Sensitive In Second	And the same time.         Concrete Random (CR)         Concrete Ra	An analysis of the sequence of	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		And         Convote Random (CR)         Conv

	Consistency	Absolute Agreement			
	Croubech's Alpha	Two-Way Mixed Model ICC Single Measures	Two-Way Mixed Model ICC Average Measures		
		First Trial			
L Creativity	0.90	0.14	0.79		
L Craftsmaship	0.87	0.17	0.83		
L Aesthetic Seasitivity	0.67	0.05	0.57		
G. Creativity	0.86	0.39	0.87		
G. Craftsmanship	0.81	0.33	0.83		
G. Aesthetic Sensitivity	0.69	0.20	0.71		
		Second Trial			
I. Costivity	0.82	0.12	0.76		
L Craftsmuship	0.80	0.13	0.77		
L Aesthetic Sensitivity	0.62	0.05	0.58		

	Creativity	Craftsmanship	Aesthetic Sensitivit
Judge 1 Pearson Correlations	0.59	0.48	0.52
Judge 2 Pearson Correlations	0.84	0.90	0.94
Judge 3 Pearson Correlations	0.70	0.35	0.78
Judge 4 Pearson Correlations	0.81	0.64	0.78
Judge 5 Pearson Correlations	0.80	0.78	0.79
Average of Individual Judge Pearson Correlations	0.75	0.63	0.76
Mean Judge Ratings Pearson Correlations	0.89	0.83	0.79
Dependent means t-test	o(22) = .63, p = .534	s(22) = .94, p = .359	s(22) = 1.9 p = .061
Two-Way Mixed Model ICC (Single Measures, Absolute Agreement)	0.88	0.83	0.75
Standard Error of Measurement (SEM)	0.37	0.35	0.46

lations Among Both Individual and Small Group Creativity, Learning Style, and In-School ut-of-School Music Participation	Table 8     Table 1       Ranking of Learning Style by Factors that Contribute to Small Group Creativity     Ranking of Learning Style by Factors that Contribute to Small Group Creativity	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Table 7 Rowling of Learning Styles by Areas of Book Individual and Small Group Creativity, Craftwawing, and Aesthetic Sensitivity
1 Creat 1 Craft 1 Aes 8 G Creat G Craft G Aes 8 AR CR AS CS	a the set of the set o	s turch a solution of the solu	Factors M SD Range Individual Creetwity
1 0.74** 0.74** 0.26 0.31 0.42* 0.09 0.21 0.04 +0.32			Abstract Segmential 4.50 0.99 4.2-5.6
0.74** 1 0.94** 0.18 -0.04 0.34 -0.09 0.28 -0.05 -0.17		· · · · · · · · · · · · · · · · · · ·	Abstract Random 3.50 1.18 2.0-6.0
0.74** 0.94** 1 0.19 0.07 0.27 0.06 0.33 -0.13 -0.27	· · · · · · · · · · · · · · · · · · ·		Concrete Random 380 1.41 2.4-5.2
0.26 0.18 0.19 1 -0.13 0.17 0.01 0.10 -0.13 0.01			Concrete Secretarial 3.30 1.03 1.8-1.4
0.31 -0.04 0.07 -0.13 1 0.18 0.21 0.15 0.06 -0.37		BR BI BB BB BI BI FY RHI BI BB RHI BI BB BI	Jadvidual Craftmannlap
0.42* 0.34 0.27 0.17 0.18 1 0.03 0.41 0.18 0.27	1 AR AS AS AR AR AR AS CS AS AR AR AS CS CR AS CR AR 44		Abstract Random 4.02 0.96 2.8-6.0
0.09 -0.09 0.06 0.01 0.21 0.03 1 0.27 -0.49* -0.58**	40 43 49 594 578 17 20 98 30 44 15 50 08 63 15 33 15	• 4.4 5.1 00.4 77.4 5.3 5.0 10.7 4.2 0.3 5.0 4.4 1.4 5.7 0.8 5.7 2.7	Abstract Segmential 3.90 0.71 3.4-4.4
021 028 033 010 015 041 027 1 .064** .062**			Concrete Sequential 3.67 0.43 3.0-4.2
0.04 -0.05 -0.13 -0.13 0.06 -0.18 -0.49* -0.64** 1 0.09		T CT BB RHI BI BB CT CT CT CT CT RHI BI BB CT BB CT	Concrete Random 3.45 1.28 2.4-5.2
-0.32 -0.17 -0.27 0.01 -0.37 -0.27 -0.58** -0.62** 0.09 1	2 AS AR AR CS AS CR AR CR CS AS CS AR AR AR CR AR CR 42	2 4.2 4.2 6.3 59.7 1.4 1.8 7.8 3.5 4.5 1.5 3.2 0.7 4.4 0.3 1.8 1.8	Individual Aesthetic Sensibility
	4.0 4.0 3.9 51.2 44.0 1.3 1.5 9.3 2.5 3.0 0.5 2.3 0.6 5.3 0.3 1.5 0.8	4.2 4.2 03.0 39.7 1.4 1.8 7.8 3.3 4.3 1.3 3.2 0.7 4.4 0.3 1.8 1.8	Abstract Random 4.15 1.10 3.0-6.4
0.42* 0.46* 0.40 0.20 0.17 0.33 0.02 0.22 -0.18 -0.08			Abstract Segnential 3.90 0.99 3.2-4.6
0.52* 0.62** 0.55** 0.30 0.24 0.21 -0.14 0.27 -0.14 -0.04	3 FY	Y BI CT CT CT RHI RHI RHI FY BB FY CT BB FY RHI FY FY	Concrete Sequential 3.53 0.56 2.8-4.2
0.40 0.33 0.40 0.36 0.05 0.43 0.35 0.30 -0.31 -0.29	3 CS CR CR AS CS CS CR AR CR CS CR CR CR AS AR AS CS 4.0	0 4.0 5.1 53.8 57.0 1.4 1.2 7.4 1.7 1.8 0.5 1.5 0.6 4.3 0.0 1.3 0.5	Concrete Random 3.50 1.67 2.0-5.8
031 -007 001 -013 051* 014 -005 003 037 -033	3.9 4.0 3.8 42.5 45.0 1.2 0.5 6.7 2.3 0.8 0.0 2.0 0.5 1.0 0.1 1.0 0		Group Creativity
0.31 -0.01 0.01 -0.13 0.31 0.14 -0.03 0.05 0.37 -0.33 0.37 0.43* 0.46* 0.02 -0.06 0.22 0.47* 0.49* -0.57* -0.37		the second s	Abstract Random 4.00 0.34 3.6-4.4
	4 BP	3 RHI RHI BI RHI CT BB BB BB RHI RHI BI CT RHI BI CT RHI	Abstract Segnential 4.00 0.23 3.8-4.2
	4 CR CS CS CR CR AS CS AS AR CR AS CS AS CS CS CS AS 3.8	3 4.0 3.4 51.7 49.4 1.3 0.8 7.2 1.6 1.8 0.2 1.3 0.5 3.6 0.0 1.0 0.2	Concrete Random 3.90 0.12 3.8+4.0
: -0.36 -0.20 -0.15 -0.12 -0.28 -0.28 0.12 -0.24 0.06 0.08	3.9 3.8 3.3 14.2 28.2 0.5 0.5 5.0 2.3 0.5 0.0 0.7 0.5 0.8 0.0 0.0 0		Concrete Sequential 3.90 0.25 3.64.2
-0.36 -0.32 -0.17 -0.23 0.05 -0.31 -0.06 0.12 -0.18 0.09	5 PL	II FY FY FY FY FY FY BI BI FY BB FY FY CT FY RHI BB	Group Crightmannisp
4 - 0.10 - 0.20 - 0.14 0.36 0.15 0.13 - 0.01 0.33 - 0.26 - 0.07			Abstract Segmential 4.30 0.14 4.2-4.4
-0.01 -0.08 -0.06 0.54** 0.00 0.21 -0.19 0.20 -0.09 0.01	Note. The numbers in the table represent mean scores for each factor. AR (n = 11), CR (n = 4), CS (n = 6), AS (n = 2). 3.6	5 5.6 5.2 48.7 45.0 0.5 0.0 4.0 0.7 1.0 0.0 1.0 0.2 1.8 0.0 0.4 0.0	Abstract Random 4.07 0.22 3.6-4.4
0.17 -0.14 -0.20 -0.31 0.32 0.11 0.04 0.13 0.28 -0.44**			Concrete Random 4.00 0.46 3.6-4.4
-0.01 0.12 0.05 0.16 -0.06 0.05 -0.44 <sup>+</sup> -0.09 0.14 0.28	Note. T	he numbers in the table represent mean scores for each factor. BI = The "Beat It" Group (n = 3). RHI = The "Rumor Has It" group (n = 5). CT = The "Closing	Concrete Sequential 3.83 0.27 3.6-4.2
-0.43* -0.35 -0.33 -0.28 0.30 0.08 0.35 0.09 -0.15 -0.23	Time" f	group (n = 4). FY = The "Fix You" group (n = 6). BB = The "Blitzkrieg Bop" group (n = 5).	Group Arathetic Southety
-0.09 -0.09 -0.01 -0.02 0.53** 0.28 0.18 0.16 -0.01 -0.30			Abstract Random 4.02 0.45 3.4+4.6
*p < .01, * p < .05.	Record and a second second		Concrete Random 4.00 0.23 3.8-4.2
			Abstract Segnential 3.80 0.57 3.44.2
			Concrete Sequential 3.73 0.16 3.4-3.8 Note. Data is based on mean scores by 5 independent inducts.
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	AAAAA		Par land