



**USING ABBREVIATED TORRANCE TEST for
ADULTS (ATTA) TO MEASURE CREATIVITY
TRAINING EFFECTIVENESS IN THE
INDONESIAN CONTEXT**

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Acknowledgement

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dan sponsor-sponsor pribadi yang tidak ingin disebutkan namanya.

Background



- The importance of having a creative teacher who encourages students to think
- Research showed that : Creativity can be taught,

from : Firestien & Lunken, 1993; Parnes & Noller, 1972; Rose & Lin, 1984; Scott, Leritz & Mumford, 2004, Horng et.al, 2005





- Creativity training should begin in teacher training universities
- The Torrance Incubation Model and 18 Creative Thinking Skills

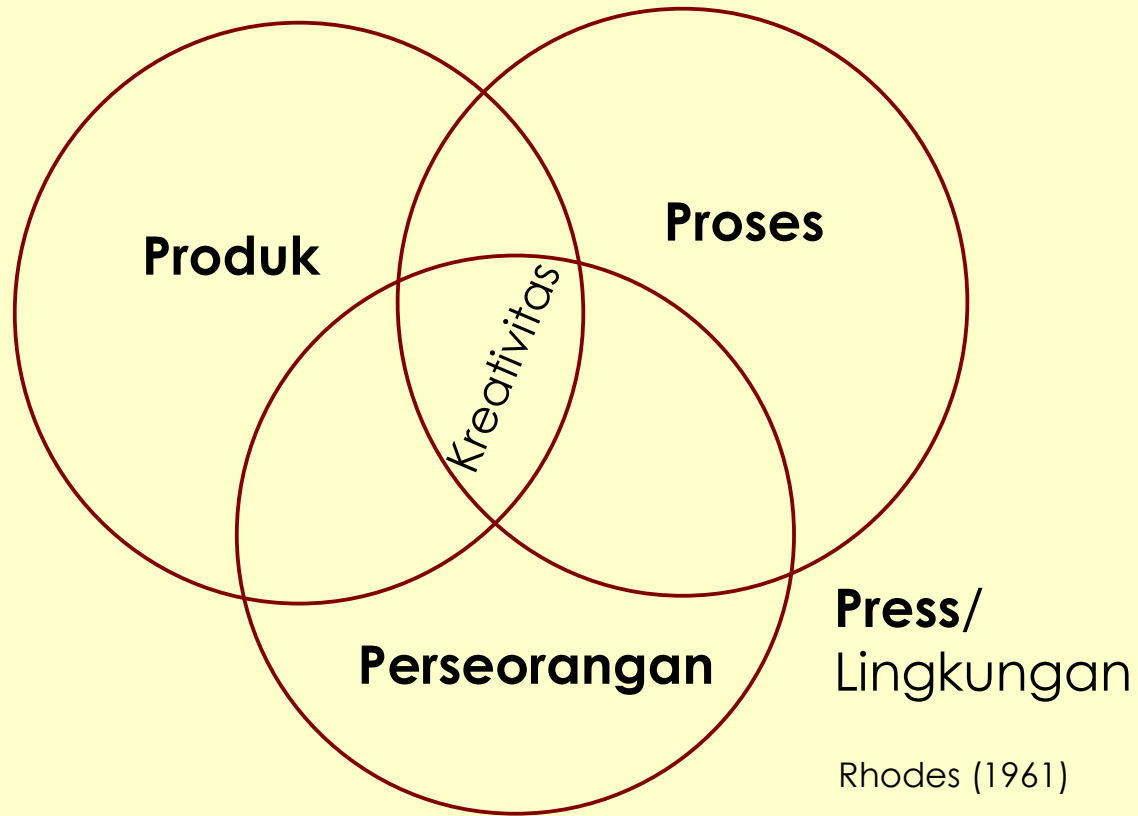


Definition of Creativity

For the purpose of this research, creativity is defined as the skill to solve a problem effectively in a new and ethical way.



Kreativitas : 4 P



Rhodes (1961)



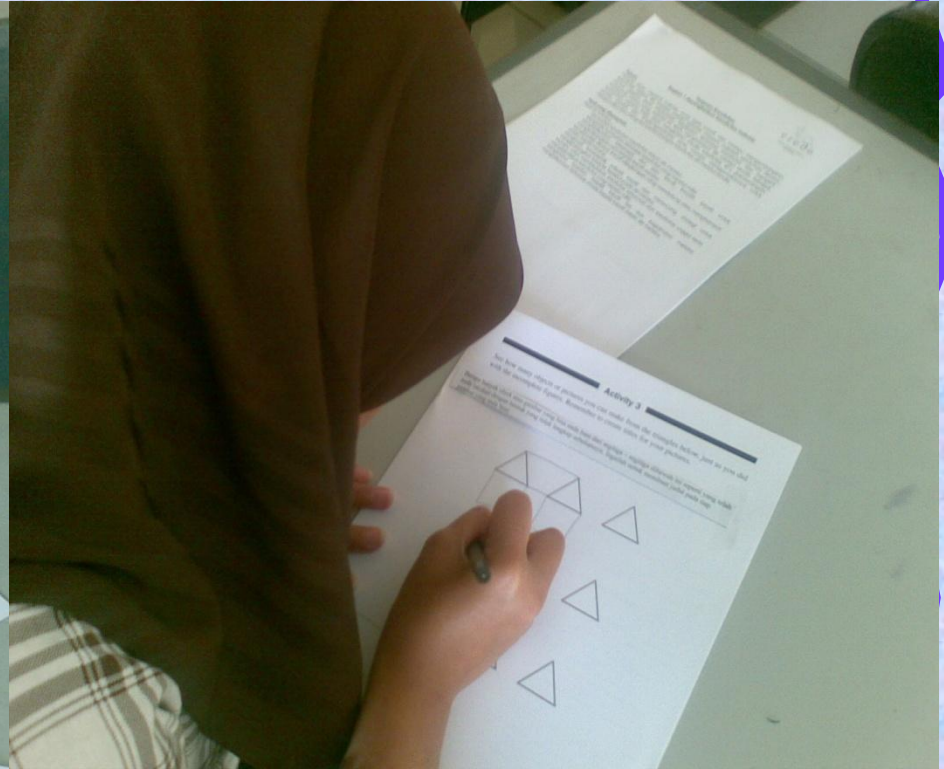
1. Developing Creative Person
 2. Teach how to Creative Thinking
- ## PROCESS
3. Building a creative ENVIRONMENT





Need 2 kind of respond:

- verbal respon
- figural responses



Let's Try One of the
Activity given in the Test!
Please get your pen and
paper ready



If you can be invisible in any way without any gear or something, what kind of problem can it caused?



How do you assess this?



- The Four Norm-References Measure
- The Criterion-references Measure



The Four Norm-References Measure



- **Fluency** is the ability to produce ideas within a context.
- **Originality** is the ability to create a unique and noble idea
- **Elaboration** is the ability to give information to make people understand idea without being excessive in the information provided.
- **Flexibility** is the ability to see something from different perspectives or utilization.



Results



Measure	Before Training		After Training		Standard (Norms)	
	Mean	SD	Mean	SD	Mean	SD
Creativity Index	60,10	12,46	75,54	7,43	69,43	10,98
Fluency	14,78	2,369	18,10	1,619	15,01	1,90
Flexibility	14,05	4,208	16,71	2,354	15,27	1,86
Originality	13,95	3,380	17,14	2,355	15,15	1,90
Elaboration	12,65	4,189	15,32	2,610	15,12	2,14



Creativity Index



Creativity Index	1-50	51-59	60-67	68-73	74-77	78-84	85+
Creativity Level	1	2	3	4	5	6	7
Verbal Assessment	Minimal	Low	Below Average	Average	Above Average	High	Substantial
% Adults in level	4%	12%	20%	26%	20%	12%	4%

Table 4. Conversion of Creativity Index to Scaled Score and Related Interpretive Information



For Creativity Index, from "Below Average" or to "Above Average" or

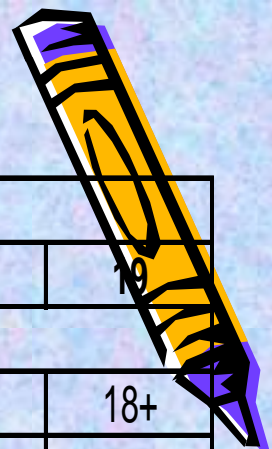


<i>Measure</i>	Before Training	After Training
Creativity Index	,382	,575
Fluency	,898	,331
Flexibility	,949	,531
Originality	,051	,108
Elaboration	,516	,056

Table 1. coefficient for one way anova on creativity index between groups before and after training ($p \leq 0.05$)



Those numbers actually tell you that the score from ATTA before and after have significant difference!



Creative Ability	Total Score	Scaled Scores								
		11	12	13	14	15	16	17	18	19
		Corresponding Raw Scores								
Fluency		1-6	7	8-9	10	11-12	13-14	15-16	17	18+
Originality		1	2	3	4	5	6	7-8	9-10	11+
Elaboration		1-3	4-5	6-8	9-11	12-14	15-18	19-23	24-27	28+
Flexibility		-	1	-	2	3	-	4	5	6+
Creative Roles		Collaborator			Contributor			Accelerator		

Table 5. Converting Ability Raw Score to Normalized Standard Scores (Scaled Scores)

- For Fluency, flexibility, and originality from contributor to accelerator
- For Elaboration from collaborator to contributor



Conclusion



Creativity **CAN BE TAUGHT**

Creative training given by Credo is
EFFECTIVE in Indonesian Context



RECCOMENDATION



to have creativity training in teacher training universities as their subject to develop the students teacher creativity since the beginning. Even better if the universities integrated it in their curriculum to become a compulsory subject.

schools, teacher organization should hold creativity training so teacher can improve their competence.



Thank You!

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