

Encouraging Creative and Innovative Thinking in Schools

Petra Vallin

CREDIT REQUIREMENTS

- max. 20% absence (which means 1 whole session)
- completed outdoor group activity
- regular assignments after each session
- NO EXAM OR FINAL PROJECT AT THE END!

Program

- What makes me me – getting to know your teacher
- Ladybird – getting to know each other
- Definition of creativity and why it is important
- Components of creativity
- Tests of creativity

Task 1:

Take a small piece of paper and write answers to the following questions:

1. What does creativity mean to me?
2. Why is it so important in the 21st century?

What is creativity?

„Creativity is the act of **turning new and imaginative ideas into reality**. Creativity is characterized by the ability to perceive the world **in new ways**, to find **hidden patterns**, to make connections between seemingly unrelated phenomena, and to **generate solutions**.

Creativity involves two processes: **thinking, then producing**. If you have ideas but don't act on them, you are imaginative but not creative.“

Creative learning – why now?

- 50s – stated it should be prioritized
 - 90s – gradually starts to be placed into practice
 - Educational system was designed during 1st industrial revolution – to train good workers
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1. Agricultural age (farmers)
 2. Industrial age (factory workers)
 3. Information age (knowledge workers)
 4. Conceptual age (creators)

Components of creativity

- Creativity, Culture and Education (2011), an international foundation for creative learning, **developed a framework identifying creative skills** and behaviours in children aged 5 years and up.
- It is advised to use this Framework in the planning and development of any teaching and learning approaches **with the aim of unlocking the creativity** of children and young people.
- These skills and behaviours were defined as: ...



Creative learning - Why now?

- K. Robinson (2011) says: „Creativity in education is crucial **to prepare children for a world we cannot envisage** – instead of remembering and following instructions, they choose instead to think.“
- The Sutton Trust (2017) warns that **15 million jobs in the UK could disappear** due to technology (robotics).
- Be Open (2017) mentions that „**creative capacity is far more important than academic knowledge**“.
- R. Mohammed (2018, s. 20) says that: „It is agreed that we no longer live in a world where relying solely on logic, analysis, and problem-solving skills is sufficient. In today`s rapidly changing environment, **children need a new set of skills to cope with uncertainty and complexity**, and creativity is very much a part of it.“

But...

...teachers know creativity is important but they do not have the time to incorporate it into their work or they are not sure how to do it.

Why creative learning in the early years?

Research has found that if creativity is not engaged with during the naturally creative childhood years, it is much more difficult to develop it in later life (Marzollo, Lloyd 1974).

Creativity tests to unlock your imagination (e.g. alternative uses)

Developed by J.P. Guilford in 1967, the Alternative Uses Test stretches your creativity by giving you two minutes to think of as many uses as possible for an everyday object like a chair, coffee mug, or brick. Here's a sample brainstorm for "paper clip" uses:

- Hold papers together
- Cufflinks
- Earrings
- Imitation mini-trombone
- Thing you use to push that emergency restart button on your router
- Keeping headphones from getting tangled up
- Bookmark

<https://99u.adobe.com/articles/7160/test-your-creativity-5-classic-creative-challenges>



Ideas how to use a glass

- glasses or magnifying glass
- to hold your phone
- a trap for bugs or spiders
- to keep your keys
- to trace a circle - "to teach geometry"
- paper press to prevent it from flying away
- to break into small pieces and use the small pieces
- to amplify ... or to make music louder
- instruments - drums,...
- as a hammer
- to cool something that hurts (it is cold)
- pencil case
- to save money - keep your coins
- to hang your necklaces (in horizontal position)
- to roll the dough while baking
- to make cookies
- to measure quantity
- to form a shape
- as an ashtray, pluviometer
- as a basket, as a target
- for photography

How is it measured?

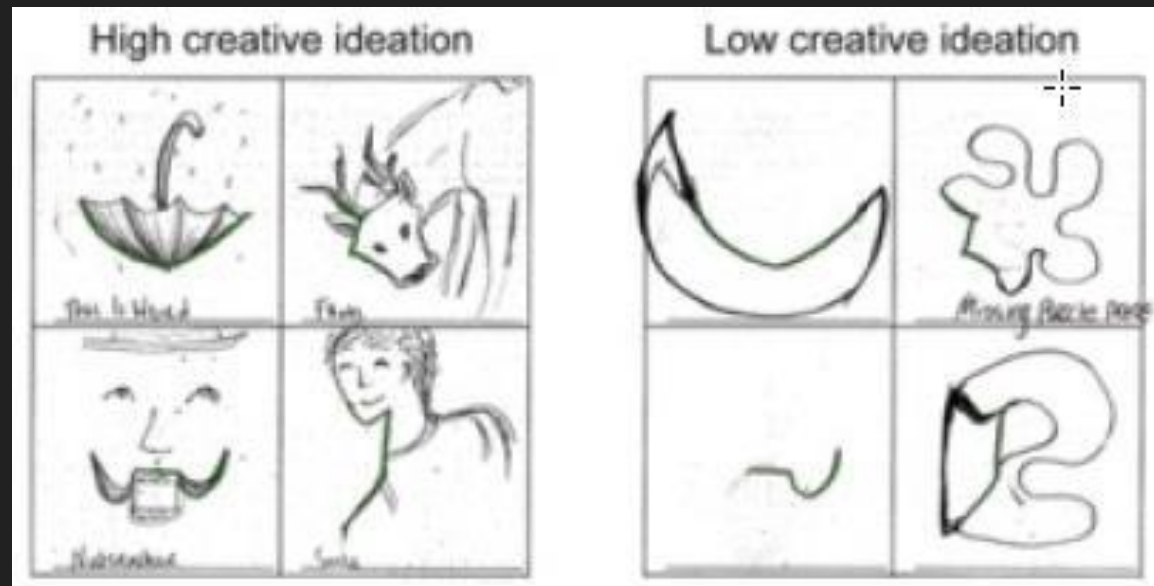
The test measures *thinking* across four sub-categories:

- **Fluency** – how many uses you can come up with
- **Originality** – how uncommon those uses are (e.g. “router restarter” is more uncommon than “holding papers together”)
- **Flexibility** – how many areas your answers cover (e.g. cufflinks and earrings are both accessories)
- **Elaboration** – level of detail in responses; “keeping headphones from getting tangled up” would be worth more than “bookmark”

<https://99u.adobe.com/articles/7160/test-your-creativity-5-classic-creative-challenges>

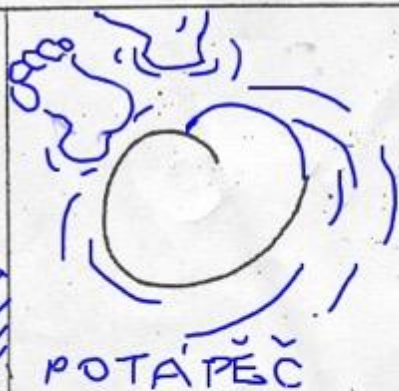
Creativity tests: Incomplete Figures

Developed in the '60s by psychologist Ellis Paul Torrance, the Torrance Test of Creative Thinking (TTCT) sought to identify a creativity-oriented alternative to IQ testing. One of the most iconic elements of the TTCT was the Incomplete Figure test. You're given a shape like the below, and then asked to complete the image.





5.



6.

LIŠKA



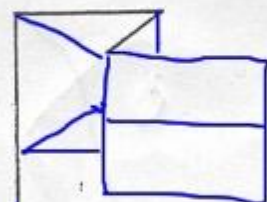
7.



8.

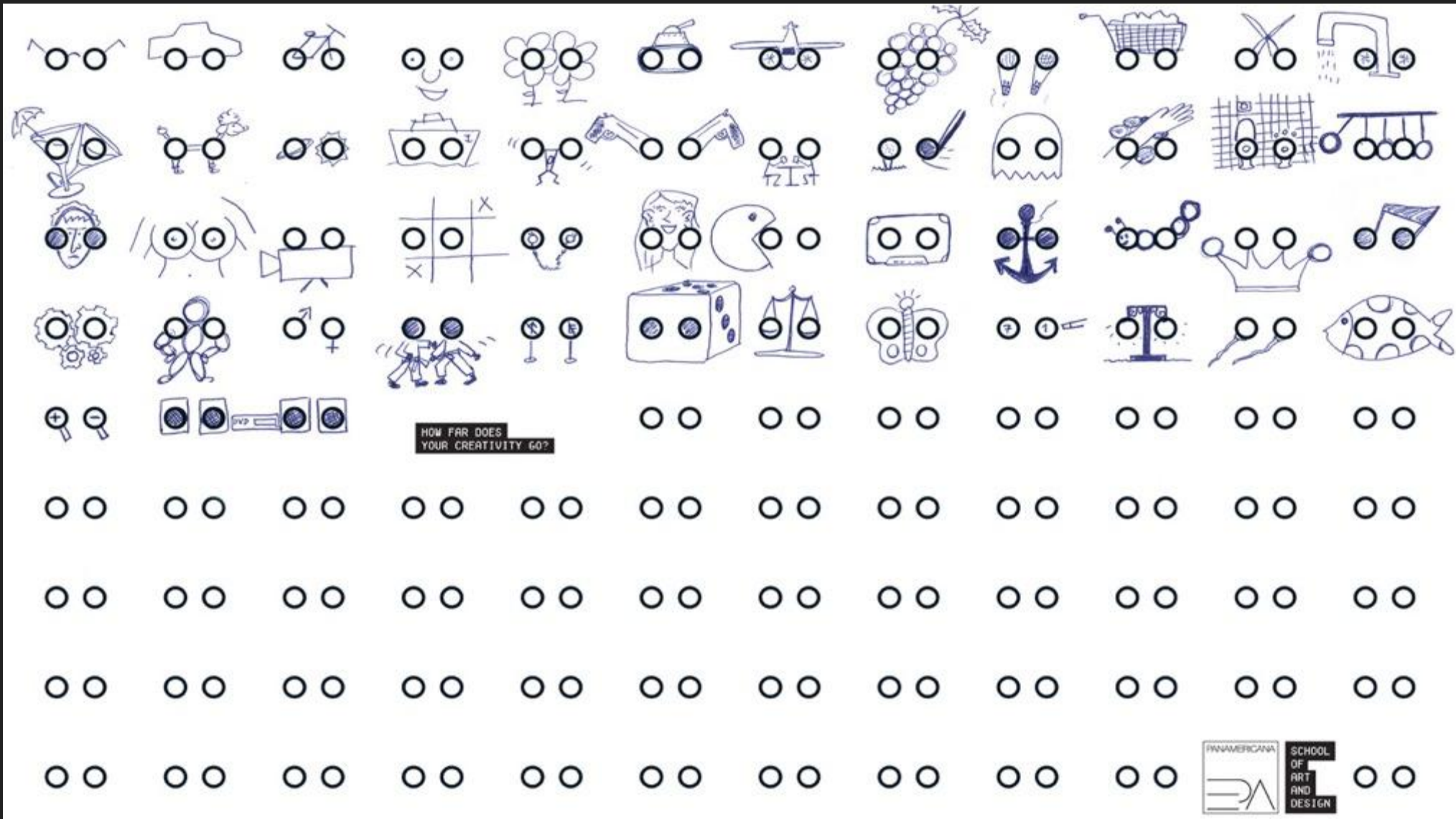


9.



10.





<http://theinspirationroom.com/daily/2009/panamericana-creativity-tests/>
<http://www.kon.org/urc/v13/kissler.html>

The newest test of creativity

- You can try it right here (it is worth trying twice):
<https://www.datcreativity.com>

What are these tests useful for in a class?

- To stimulate students' thinking
- To boost their imagination
- To free their mind
- To help them to think out of the box
- To look at things from many different perspectives
- As a warm-up or a brain breaker

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Myths about creativity

- It`s something you are born with.
- It`s for right-brained people.
- You`ve to be a little weird and crazy.
- It`s only for people like Mozart or Einstein.

Why teacher needs to be creative:

- For combining knowledge, experience and available tools when planning
- For involving all children in teaching, thinking about various strategies, hypothesing, testing, reflecting...
- For responding children needs and ensuring progression

How can we learn to be creative

Be creative yourself – practicing „being creative“ even as a hobby, personal interest, regular exercises, focus on process of creating and reflect on it. Cooperate with others, share your experience.

*„By being creative outside of your role,
you will remain inspired and motivated within it.“*

(Mohammed, R., p. 99)

How can we learn to be creative

- **Do not be afraid to get inspiration** and copy someone else`s ideas at the beginning
- **Become a noticer** – creative people are „expert noticers“ and observers
- **Practice various roles:** explorer, artist, judge...
- **Become a researcher** and collector of teaching ideas
- **Think in many different ways** – play with possibilities, use alteration (reveal new possibilities and perspectives), translate (from one form to another – e.g. Kandinsky translated classical music into paintings)

Groups for outdoor activity

(that replaces session on 28th October)

BLUEBERRIES	POMERANČ	RED FLAG DETECTORS	LUCKY ONES
Tamara	Carmen	Alix	Sarah
Anna	Adéla	Elisa	Emmi
Maria	Sofia	Miriam	Anja
Lucy	Marie	Lenka	Goiatz
	Altea		

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