



PISA 2022 Creative Thinking assessment

NEQMAP webinar, 14 March 2023



Programme for International Student Assessment

- ❑ Every three years since 2000
- ❑ 15-year-old students in over 80 countries
- ❑ 2-hour test
 - Reading, mathematics and science
 - “Innovative domain”
- ❑ Background student, teacher and school leader questionnaires
 - Personal/professional background
 - School environment and resources
 - Attitudes





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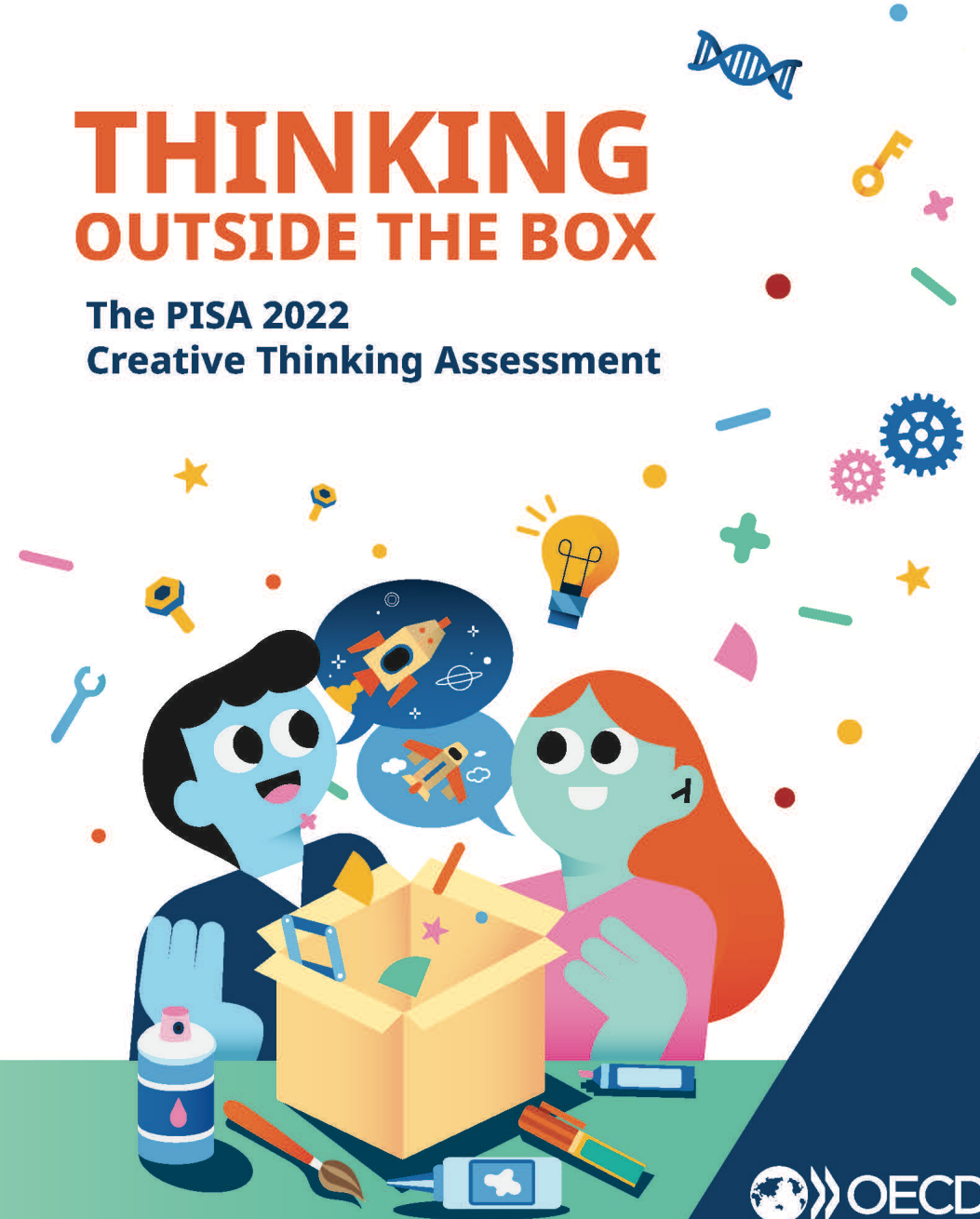
Why should PISA assess creative thinking?

- Creative insights move human civilization forward
- Societies increasingly depend on innovation and knowledge creation to address emerging challenges
- Creativity cannot easily be replaced by AI
- Creative thinking can support deep understanding, self-fulfilment and engagement



THINKING OUTSIDE THE BOX

The PISA 2022
Creative Thinking Assessment



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Defining creativity and creative thinking

1 Chapter



Who can **think creatively**?

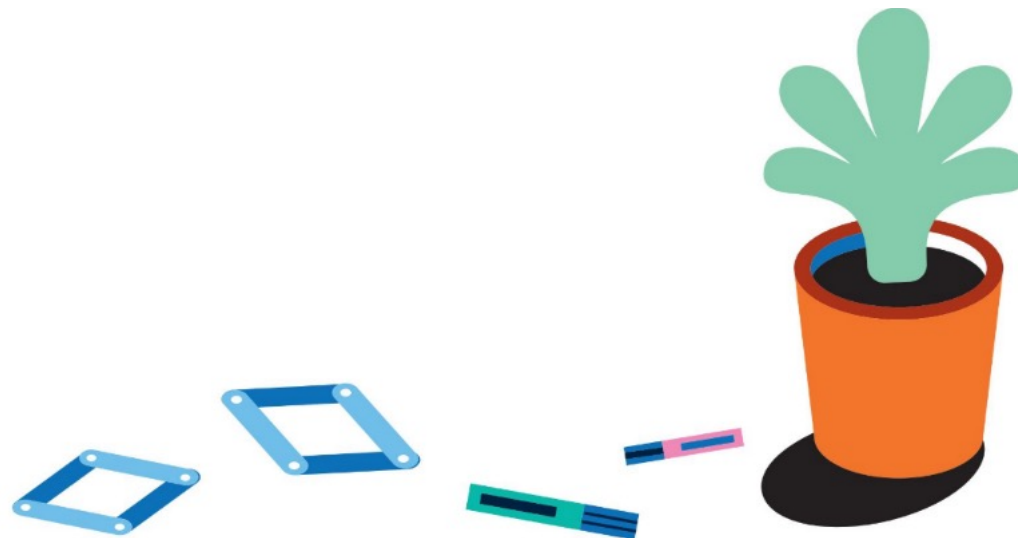
**“Big C”
creativity**



**“Little c”
creativity**

What is **creative thinking** in PISA 2022?

“...the competence to engage productively in the generation, evaluation and improvement of ideas that can result in original and effective solutions, advances in knowledge, and impactful expressions of imagination”





2

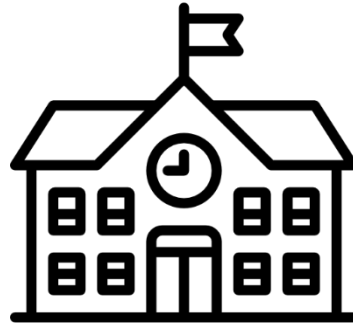
Chapter

Creative thinking in the classroom

Three interconnected dimensions



Individual enablers



Socio-cultural enablers



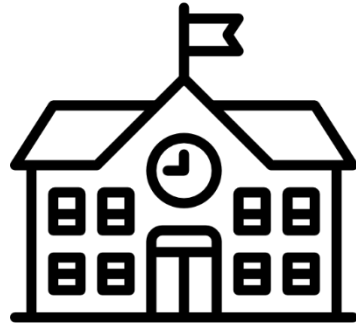
Forms of engagement



Three interconnected dimensions



Individual enablers



Socio-cultural enablers



Forms of engagement



Individual enablers



Cognitive skills



Domain readiness



Goal orientation



Task motivation

Openness to
experience

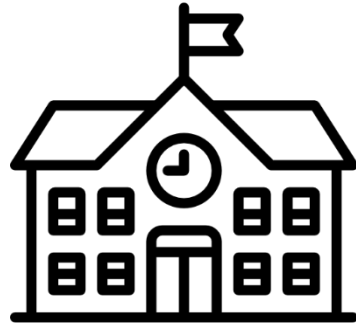


Collaboration with
others

Three interconnected dimensions



Individual enablers



Socio-cultural enablers



Forms of engagement



Socio-cultural enablers



Cultural norms and expectations



Educational approaches

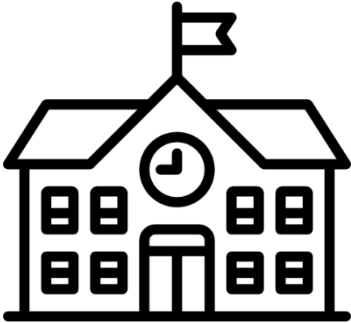


Classroom climate

Three interconnected dimensions



Individual enablers



Socio-cultural enablers



Forms of engagement



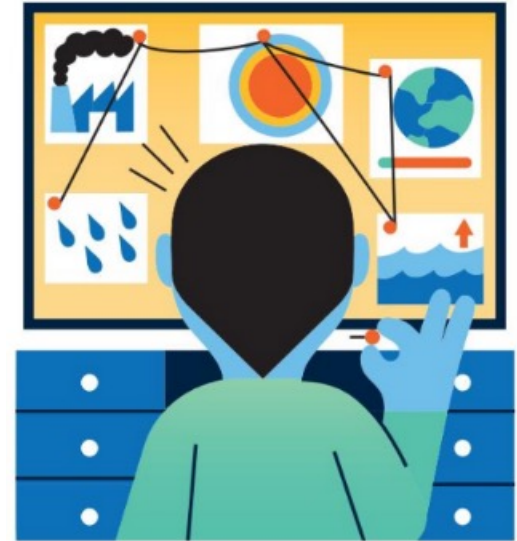
Forms of creative engagement



Creative
expression



Knowledge
creation



Creative problem
solving

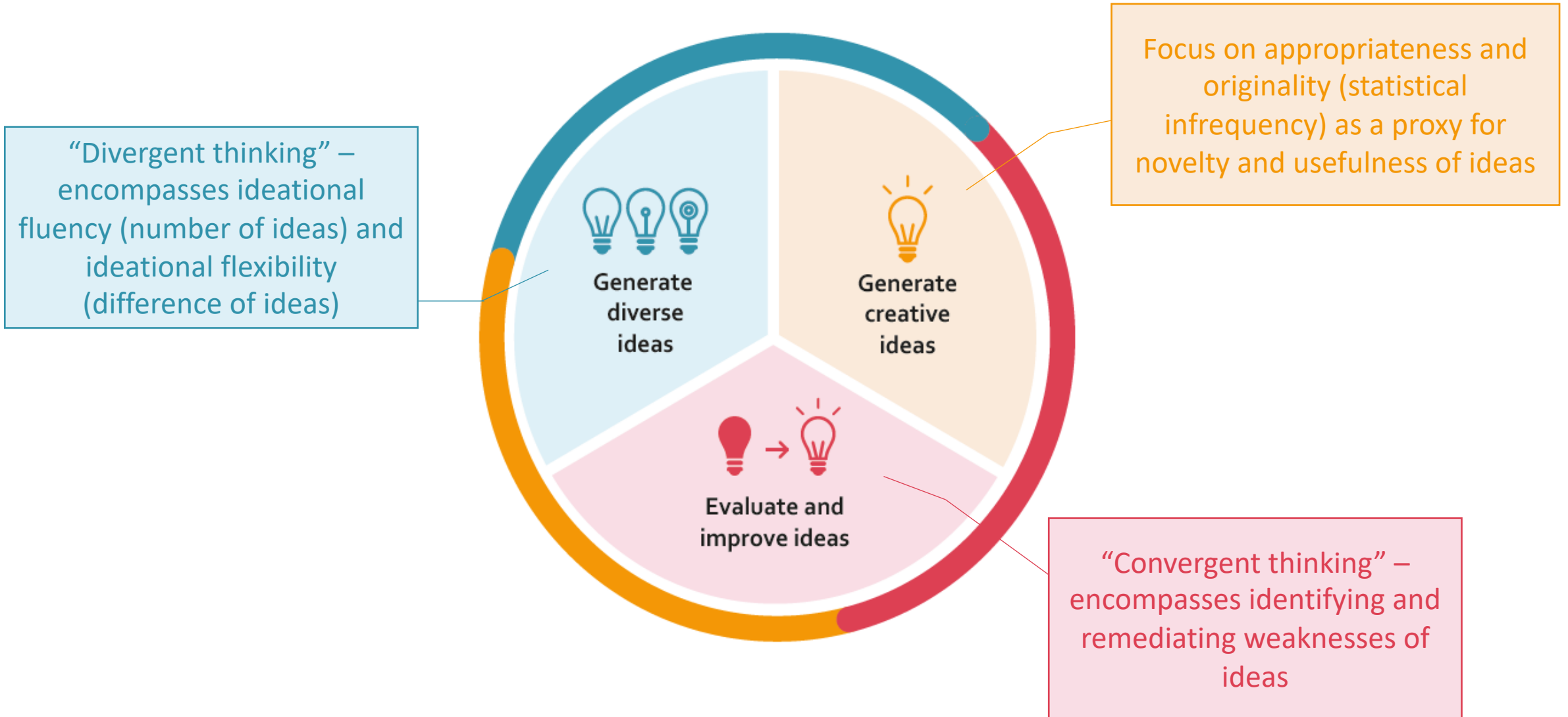
**The PISA 2022
creative thinking
assessment**

3

Chapter



How do we **measure** creative thinking in PISA 2022?



How do we **measure** creative thinking in PISA 2022?



Written
Expression



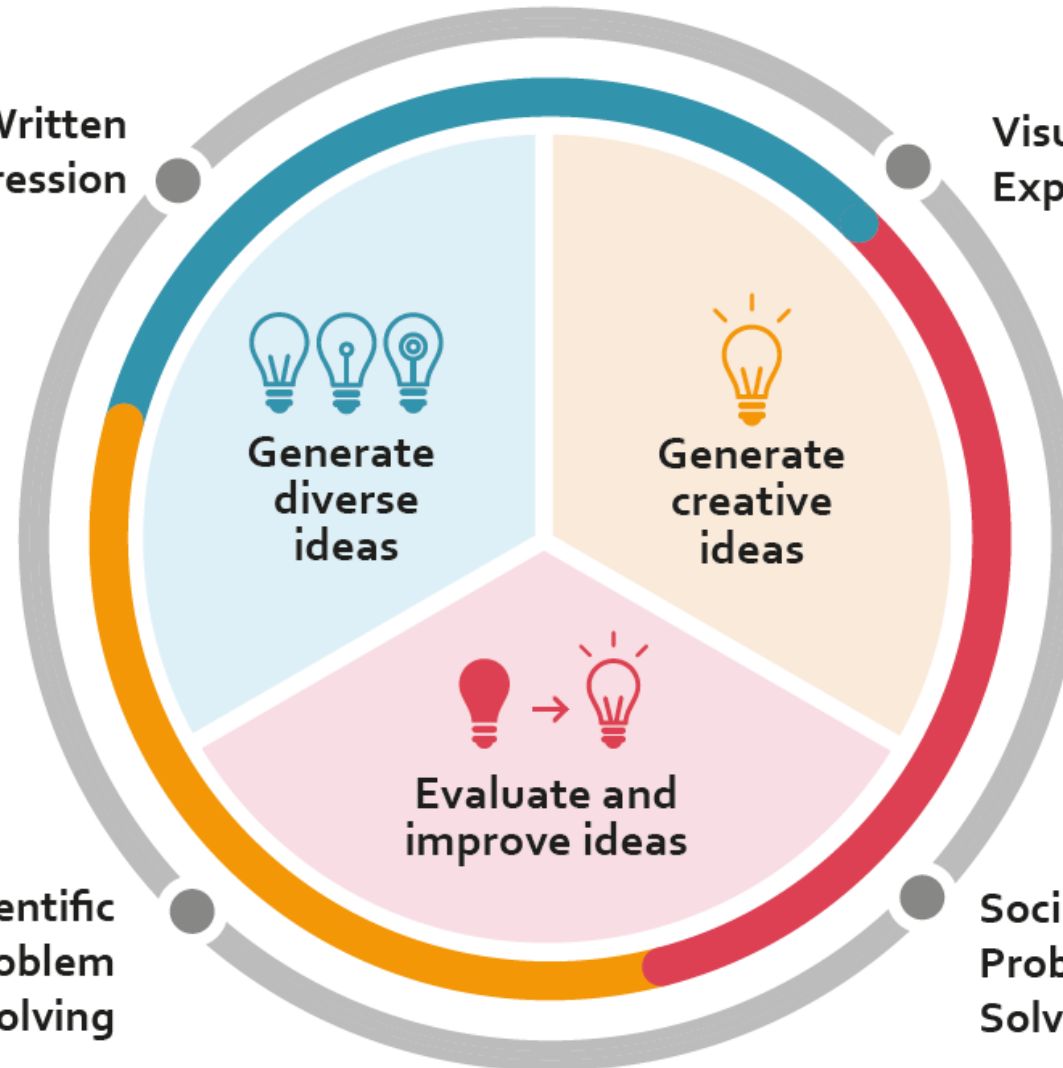
Visual
Expression



Scientific
Problem
Solving



Social
Problem
Solving



Example: Written expression (generate creative ideas)

Refer to the image on the right.

Now that you have some practice with the game, try to write one creative story that connects the six images on the right in the order they appear. Your story will receive a high score if it is original, demonstrates a rich imagination and is well structured.

We recommend that you spend no longer than 5 minutes on this question, and use no more than 80 words.

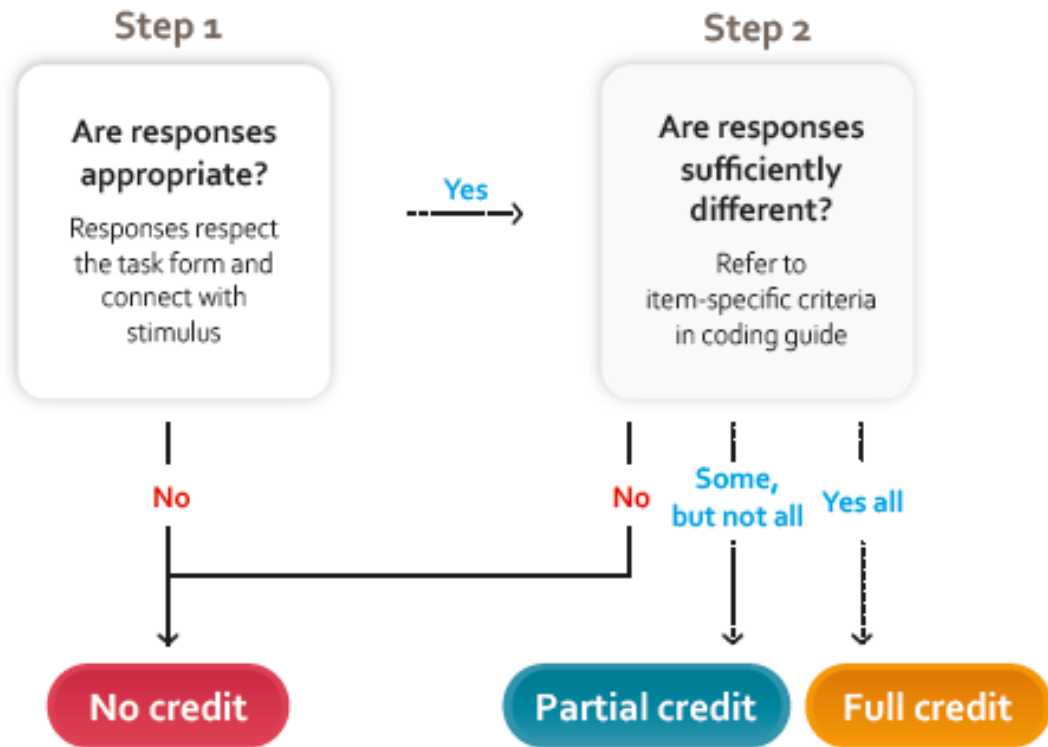
Write your story here



How do we **score** the tasks?



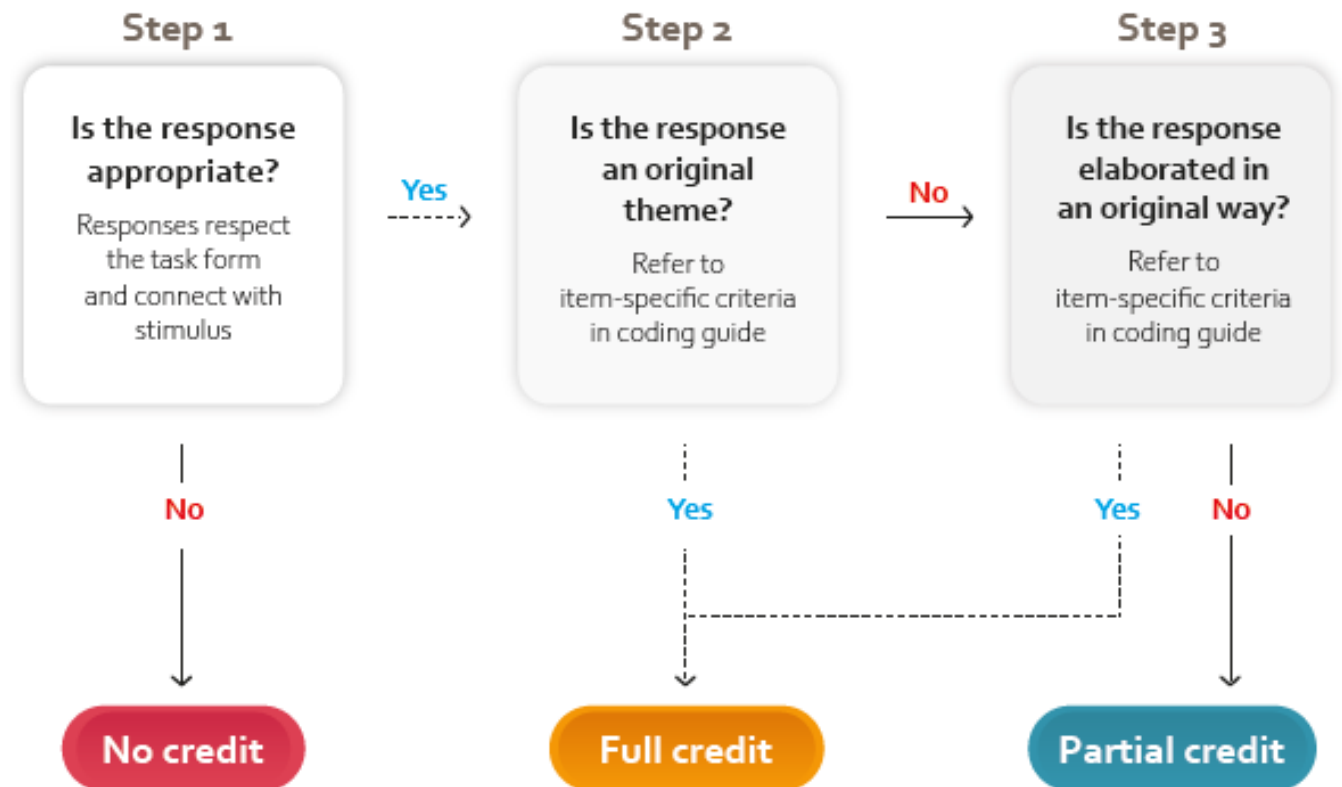
- Fully human coded scoring
- Well-defined coding procedure for each facet
- Detailed coding rubrics for each task
- Validated through country review and genuine student data from multiple pilots



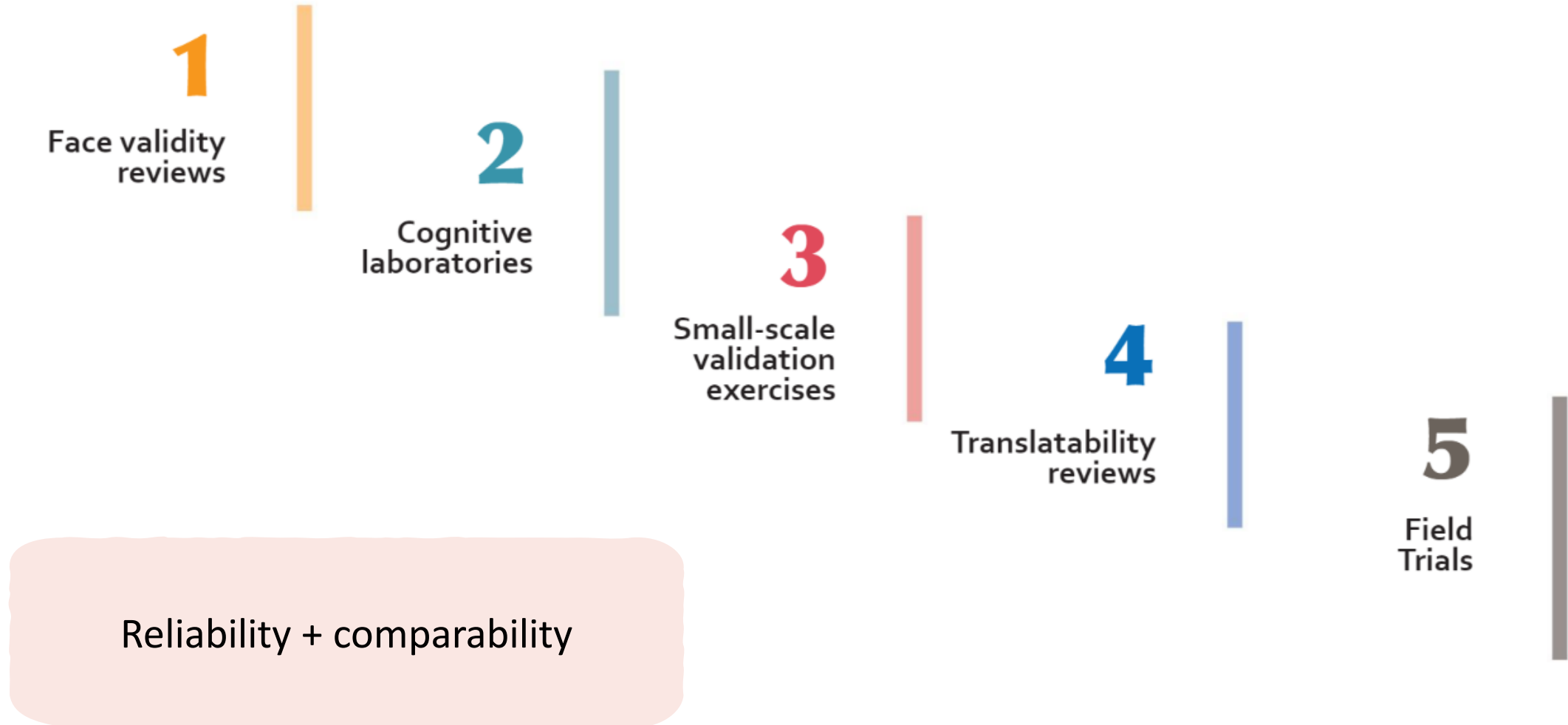
Generate diverse ideas

Fixed **coding procedures** for each facet

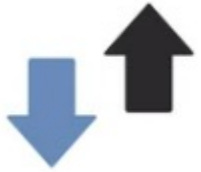
Generate creative / evaluate and improve ideas



How have we **validated** the assessment ?

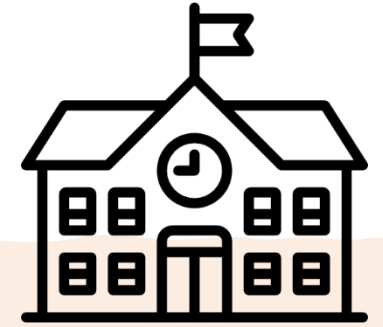


What can we **learn about education systems** from these assessments?



1. A **snapshot** of comparative performance by students around the world
2. Insight into performance **strengths and weaknesses** by country
3. **Correlation** between creative thinking and **core literacies**
4. **Correlation** between creative thinking and **education policies and practices**

What else can we learn from the data?



Individual-level factors

- Curiosity and exploration
- Beliefs about creativity
- Creative self-efficacy



Environmental factors

- School environment
- Creative activities in school