

Creatief denken in het hoger onderwijs

over het ERASMUS+ project CT.uni

Emiel van Loon – mede op basis van input door project partners



UNIVERSITEIT VAN AMSTERDAM



CT.uni

CREATIVE THINKING



Funded by
the European Union

8 Universiteiten & Hogeschole



Economie, Architectuur, Informatica,
Ecologie, Psychologie,
Taalwetenschap, Recht (etc).

De aanloop: DT.Uni

‘Design thinking’ Onderzoekend en ontwerpend leren



DT.Uni.
Design Thinking Approach
for an Interdisciplinary University



Co-funded by the
Erasmus+ Programme
of the European Union



<https://www.umcs.pl/en/dtuni.htm>

Kolasa-Nowak, A., Nowakowski, M., & Wysocki, A. (2018). Best interdisciplinarity-enhancing practices at higher education institutions. Co-funded by the Erasmus+ Programme of the European Union. Uniwersytet Marii Curie-Skłodowskiej. <https://www.umcs.pl/en/io1-good-practices,15855.htm>

Bruchatz, C., Fischer, R., & Stelzer, J. (2019). Applying design thinking: A workbook for academics and researchers in higher education. ZSE – Center for Synergy Enhancement, TU Dresden. <https://tu-dresden.de/ing/maschinenwesen/imm/td/forschung/forschungsprojekte/dt-uni>



questions fully

no information sent
to students

social media for
information



laughs

gestures to under-
line her words

questioning
↳ focuses on the
question

in real life: gets involved
active, proactive

She feels, does, and thinks what
she is saying.

THINKS

communication not good

experience for CV, skills,
new people, travelling,

personal relation (not
transparent)

FEELS

focus on private
life (dog, boyfriend)

uncertainty (pay for
rent, future)

proud (I was chosen)



CREATIVITY SUCKS

...and 50 other things I've learned
while living a creative, unorthodox, messy, unexcused life.
Like how you don't have to be a genius, and if you
are, you're probably not as good as you think you are.
And how to be a creative, unorthodox, messy, unexcused life.

Phil Hansen

HOW TO BE AN EXPLORER OF THE WORLD

PORTABLE LIFE MUSEUM

ERIK SMITH

THE ORGANIZED MIND

Thinking Straight in the Age
of Information Overload

More thoughts and logic than any other book
I know... smart, important, and deeply useful.
David Gilbert, author of *Thinking on the Edge*

curiosity



CREATIVE ACTS FOR CURIOUS PEOPLE

AND IN UNCONVENTIONAL WAYS

Greenberg
Kelley

YOU ARE AN ARTIST

ASSIGNMENTS TO SPARK CREATION

SARAH URIST GREEN

PARTICULAR BOOKS

NO!

THE POWER OF
DISAGREEMENT
IN A WORLD
THAT WANTS TO
GET ALONG

CHARLAN
NEMETH

"A beautifully written
and important book"
Adam Alter - bestselling
author of *Irresistible*

The Surprising History
of New Ideas



Steven Po







CREATIVE THINKING

January 28, 2025

CT.uni
CREATIVE THINKING
ECOTECH-COMPLEX
Analytical and Programme Centre for Advanced
Environmentally-Friendly Technologies
ul. Głęboka 39, Lublin

Conference opening
Wiesław Gruszczyński / Vice-rector for Science and
International Cooperation at UMCS
Leszek Kopicuch / Dean of the Faculty of Philosophy
and Sociology at UMCS

**Unlocking Knowledge - Quantitative Analyses
Supported by Generative AI**
Kamil Filipiek / Head of the Centre for Artificial
Intelligence and Computational Modeling, Maria Curie-
Skłodowska University, Poland

Questions & Answers

**Unlocking Potential for Creative Thinking in
Classrooms: Recommendations and Practice**
Maria del Carmen Arau Ribeiro / Guarda Polytechnic University, Portugal

**Creative Thinking: Bringing Students and External
Stakeholders Together**
Natália Gomes, Noel Lopes, and Paula Coutinho / Guarda Polytechnic
University, Portugal

**Optimizing Synergies for Creative Thinking across Cultures
and Communicative Competences: Digital Storytelling and
Team Building**
Maria del Carmen Arau Ribeiro / Guarda Polytechnic University, Portugal
Tanja Vesala-Vartiainen / Haaga-Helia University of Applied Sciences, Finland
Rafael Ribeiro / EDP - Energias de Portugal, Portugal

Questions & Answers

**Didactic Potential of Transdisciplinary Projects Carried out in Cooperation Between
Higher Education Institutions and External Partners**
Monika Chovanec Hencová, Karolína Bujdálková / Faculty of Architecture and Design STU, Slovakia

**Driving Innovation: Insights from MX Lab and Škoda Auto's Collaborative
Journey in Design Education (case study)**
Michala Lipková / Faculty of Architecture and Design STU, Slovakia

Synergic Strategy in Design
Martin Baláž / Faculty of Architecture and Design STU, Slovakia

Questions & Answers

Do Higher Education Institutions Support Creative Teaching and What is Done to Improve It?
Robert Fisher / Dresden University of Technology, Germany

Unleashing Students' Creative Potential via Scenario Development
Coryn Tromp / University of Amsterdam, Netherlands

**Development of Creative Thinking: Experience, Challenges and Prospects During the War
(Experience of the Chernihiv Polytechnic National University)**
Olena Syzonenko / Chernihiv Polytechnic National University, Ukraine

Creative Thinking in University. Impact of the project
Anna Sadowska, Michał Nowakowski, Artur Wysocki / Maria Curie-Skłodowska University, Poland

Questions & Answers

13:40 - 14:30 Lunch

CREATIVE LEARNING EXPLORED

Recommendations & Practice

UMCS **UNIVERSITY OF AMSTERDAM** **PODIUM** **TECHNISCHE UNIVERSITÄT DRESDEN** **Co-funded by the European Union**



<https://sites.google.com/view/ct-uni/home/>

Project Results

PR 1: Creativity, Innovation & STEAM in the HEI Classroom and in the Cloud

IPG will coordinate three activities for Project Result 1 to be released in open source as an e-book that will examine the state of the art of what we are calling "Creativity, Innovation & STEAM in the HEI classroom and in the cloud". This title is meant to include any activity that might be happening online and which we suspect will contribute richly to the project, including innovation and collaborations being implemented during the present Coronavirus pandemic. The state of the art for creative, divergent, and designerly thinking in HEI remains to be clearly defined.





Achtergrond & context

Taxonomie van Bloom

1. Onthouden

Informatie herinneren

Herkennen, beschrijven, benoemen



2. Begrijpen

Ideeën of concepten uitleggen

Interpreteren samenvatten, benoemen, classificeren, uitleggen



3. Toepassen

Informatie in een andere context gebruiken

Bewerkstelligen, uitvoeren, gebruiken, toepassen



4. Analyseren

Informatie in stukken opdelen om de verbanden en relaties te onderzoeken

Vergelijken, organiseren, uit elkaar halen, ondervragen, vinden



5. Evalueren

Motiveren of rechtvaardigen van een besluit of gebeurtenis

Controleren, hypothetiseren, bekritisieren, experimenteren, beoordelen



6. Creëren

Nieuwe ideeën, producten of gezichtspunten genereren

Ontwerpen, maken, plannen, produceren, uitvinden, bouwen



Kennis

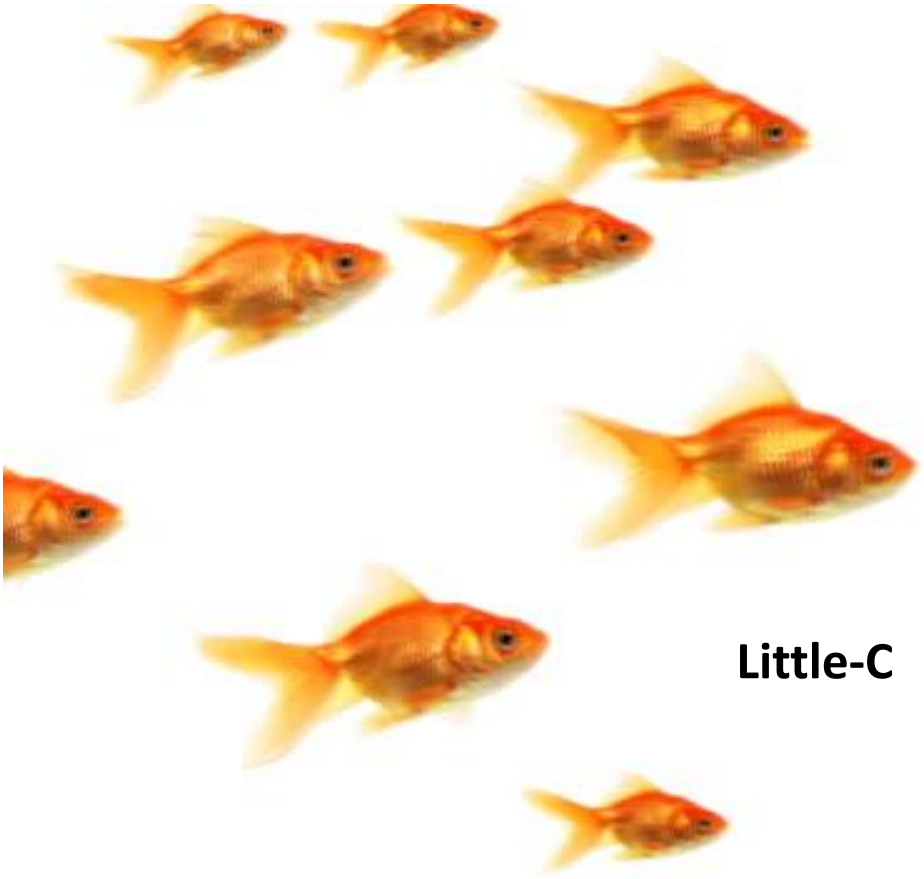
Creativiteit in onderwijs is en wordt breed bestudeerd.
De (wetenschappelijke) literatuur is omvangrijk.





Veel gebruikte definitie: “the interaction among aptitude, process and environment, by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context” (Plucker, Beghetto and Dow, 2004).

creativiteit $\sim$ nieuwsgierigheid +
geschiktheid



Little-C

BIG C



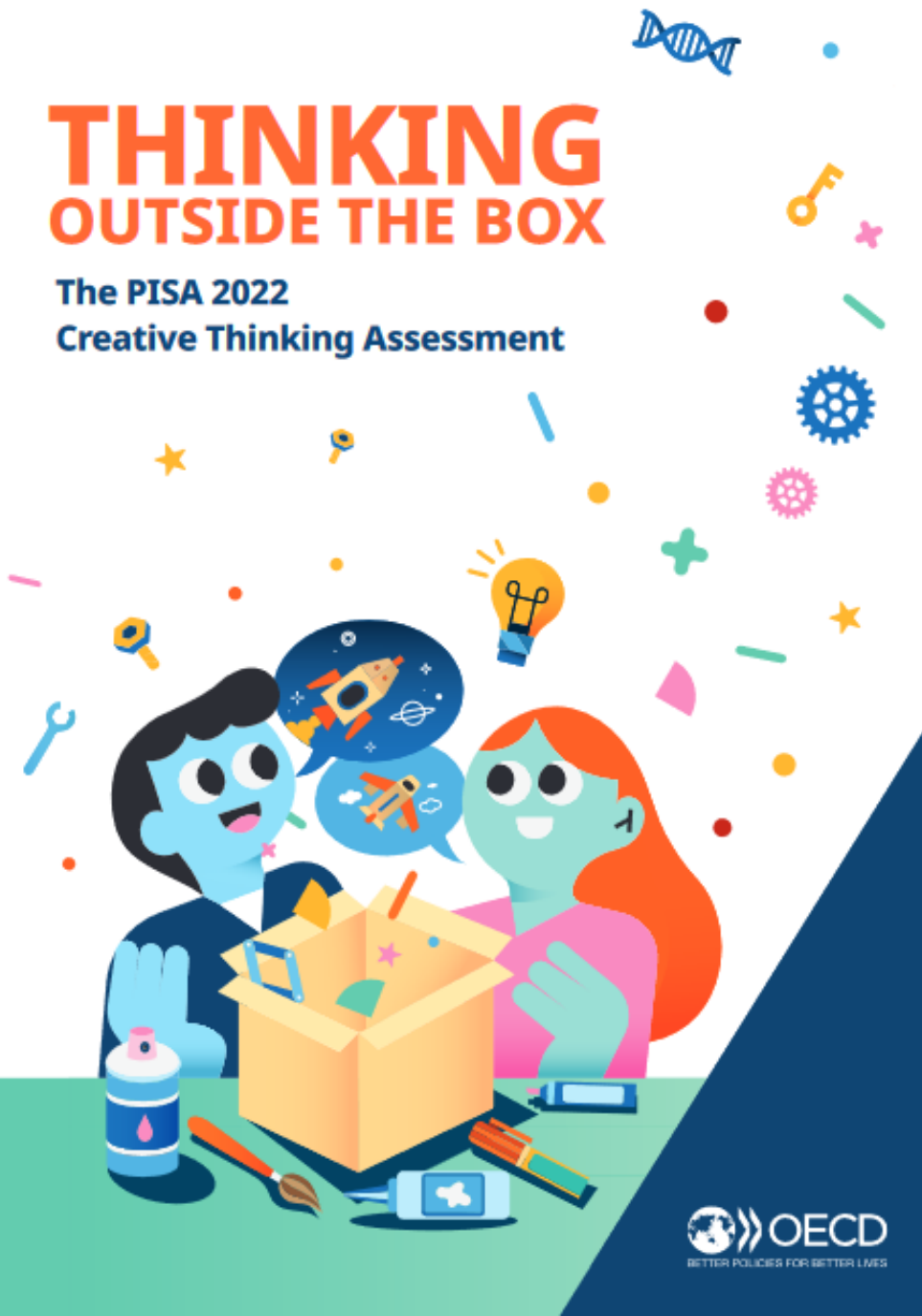


Geen consensus:

- Welke dimensies tellen mee?
- Hoe stimuleer je creativiteit?
- Kun je 'creatief Denken' wel leren?
- Hoe meet/beoordeel je het?

THINKING OUTSIDE THE BOX

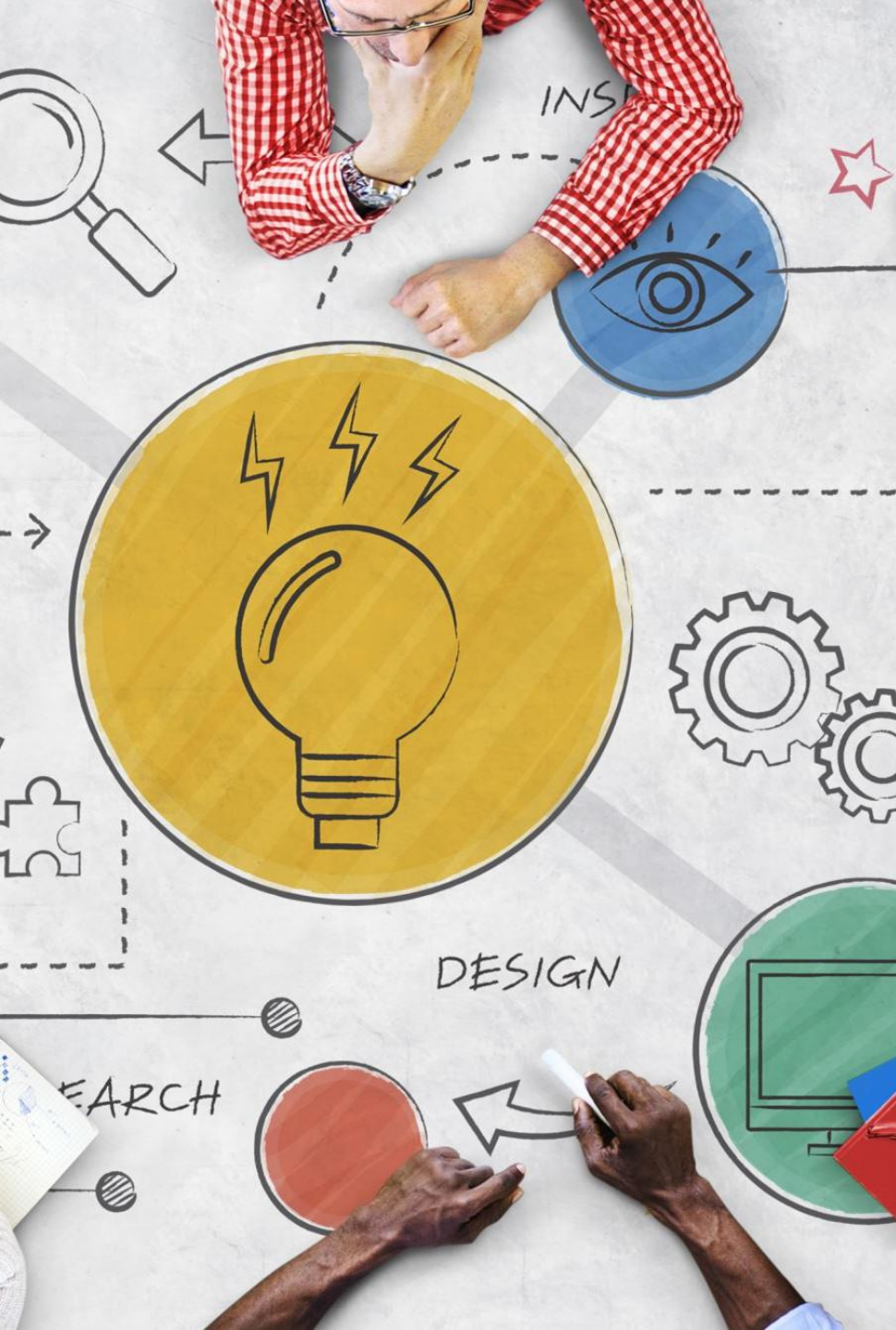
The PISA 2022
Creative Thinking Assessment



En tegelijk zijn er
allerlei spannende
ontwikkelingen:

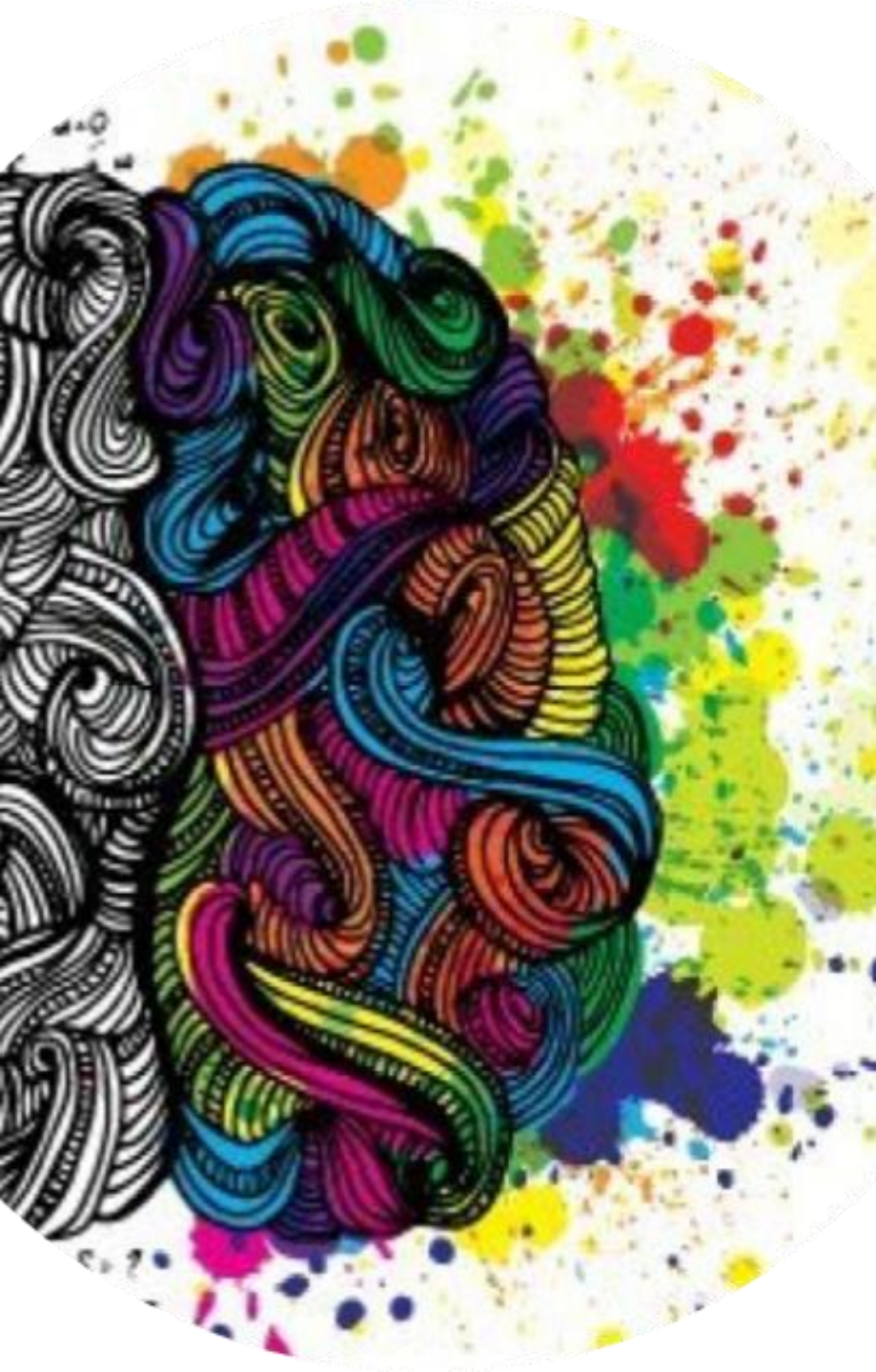
- Internationale en brede (interdisciplinaire) interesse
- Nieuw gereedschap
- Sterk gevoel van urgentie

<https://www.oecd.org/pisa/innovation/creative-thinking/>



Illustratie:

Een eenvoudige en
universele manier om
creativiteit te meten: de
Divergent Association Task

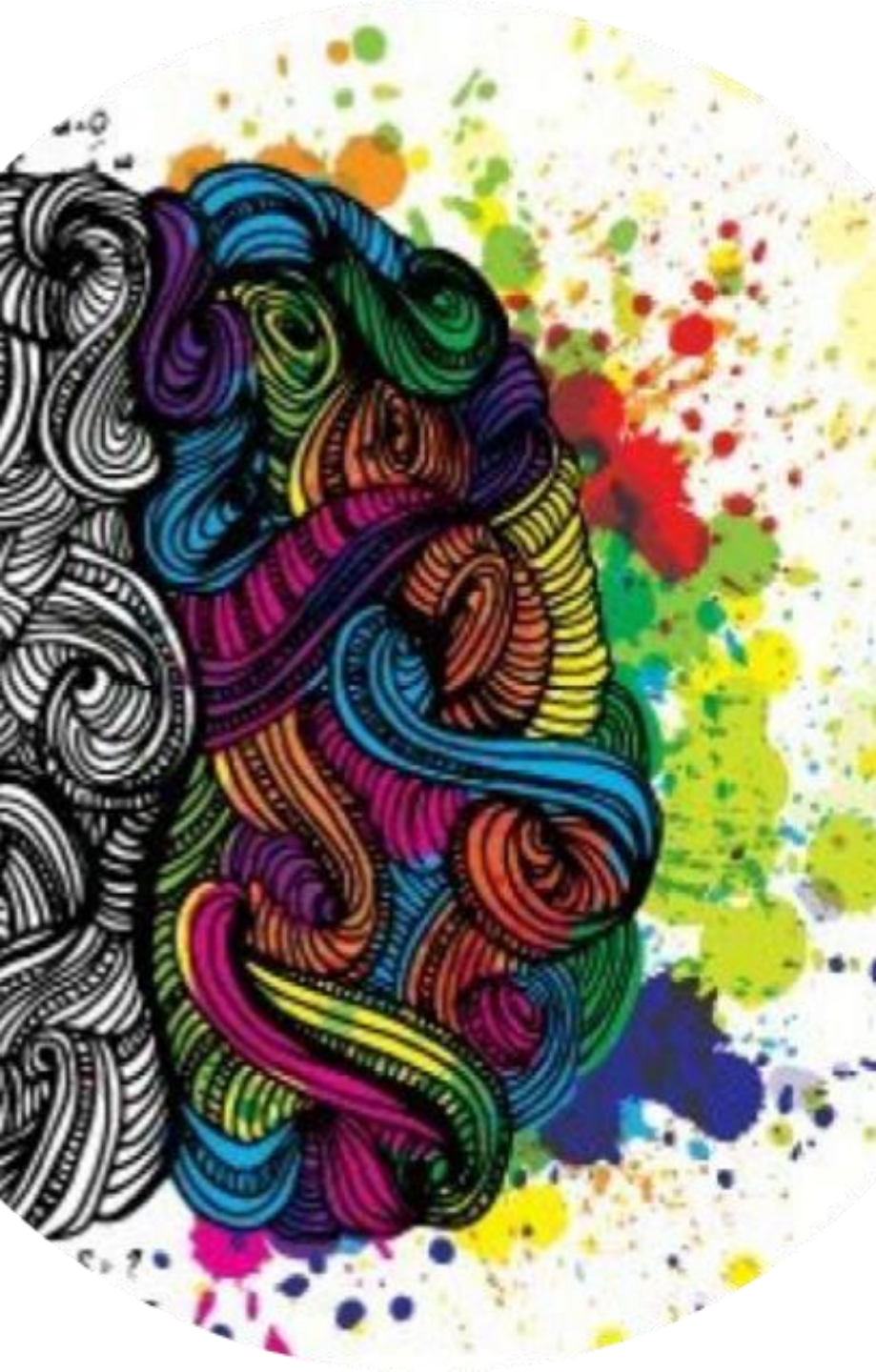


1



Noteer 10 woorden (pen en papier) die zo ver mogelijk uit elkaar liggen wat betreft betekenis.

Individueel, Engels, geen jargon, zelfstandige naamwoorden (3 minuten).



2

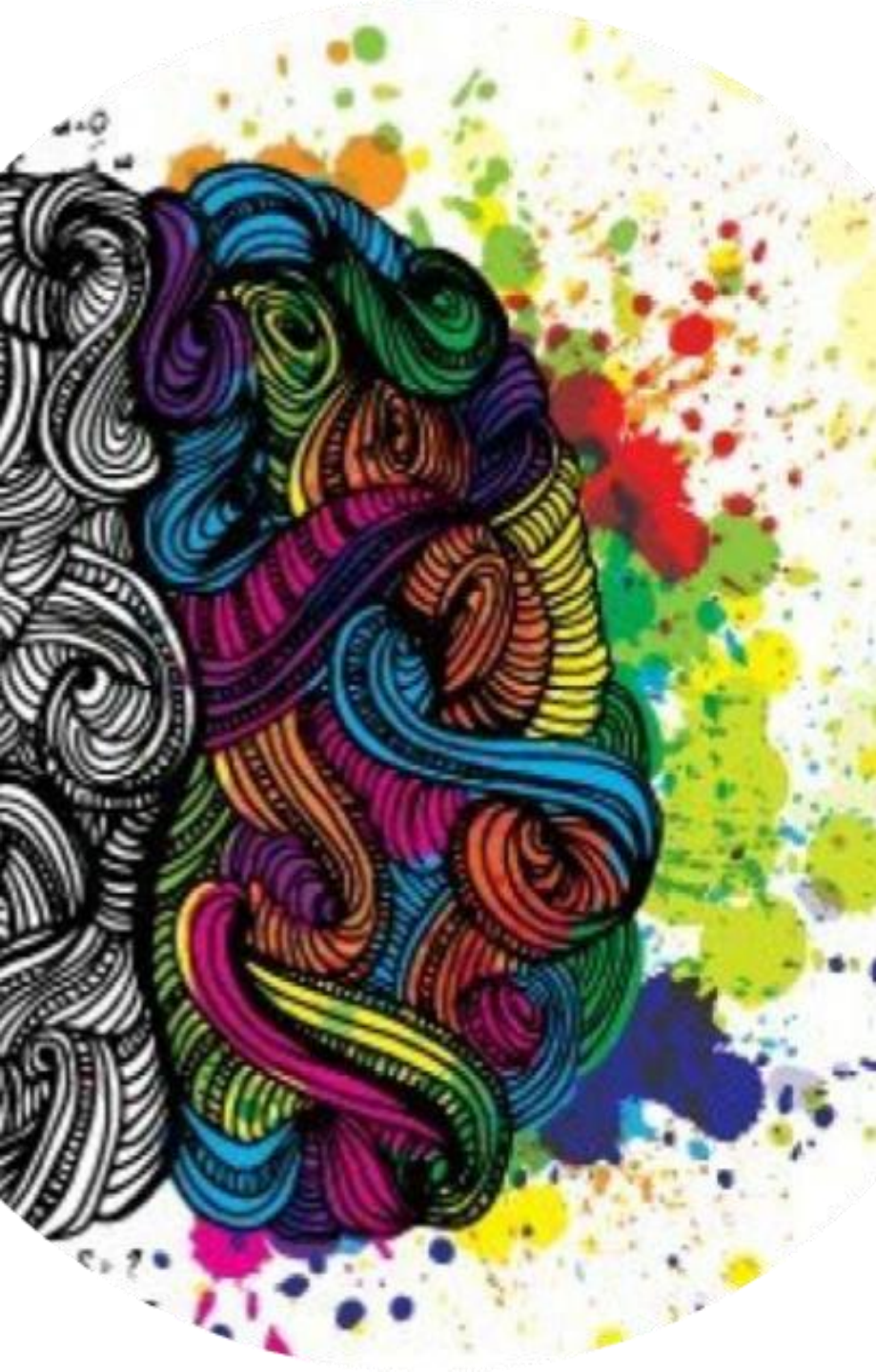


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Vorm een groep van 3 tot 4 personen – cluster met burens in je rij.



3



Noteer 10 woorden (pen en papier) die zo ver mogelijk uit elkaar liggen wat betreft betekenis.

Individueel, Engels, geen jargon, zelfstandige naamwoorden (3 minuten).



Vorm een groep van 3 tot 4 personen – cluster met burens in je rij.



Voeg de individuele lijsten samen en maak als groep een gezamenlijke lijst met de set van 10 meest divergente woorden (4 minuten).

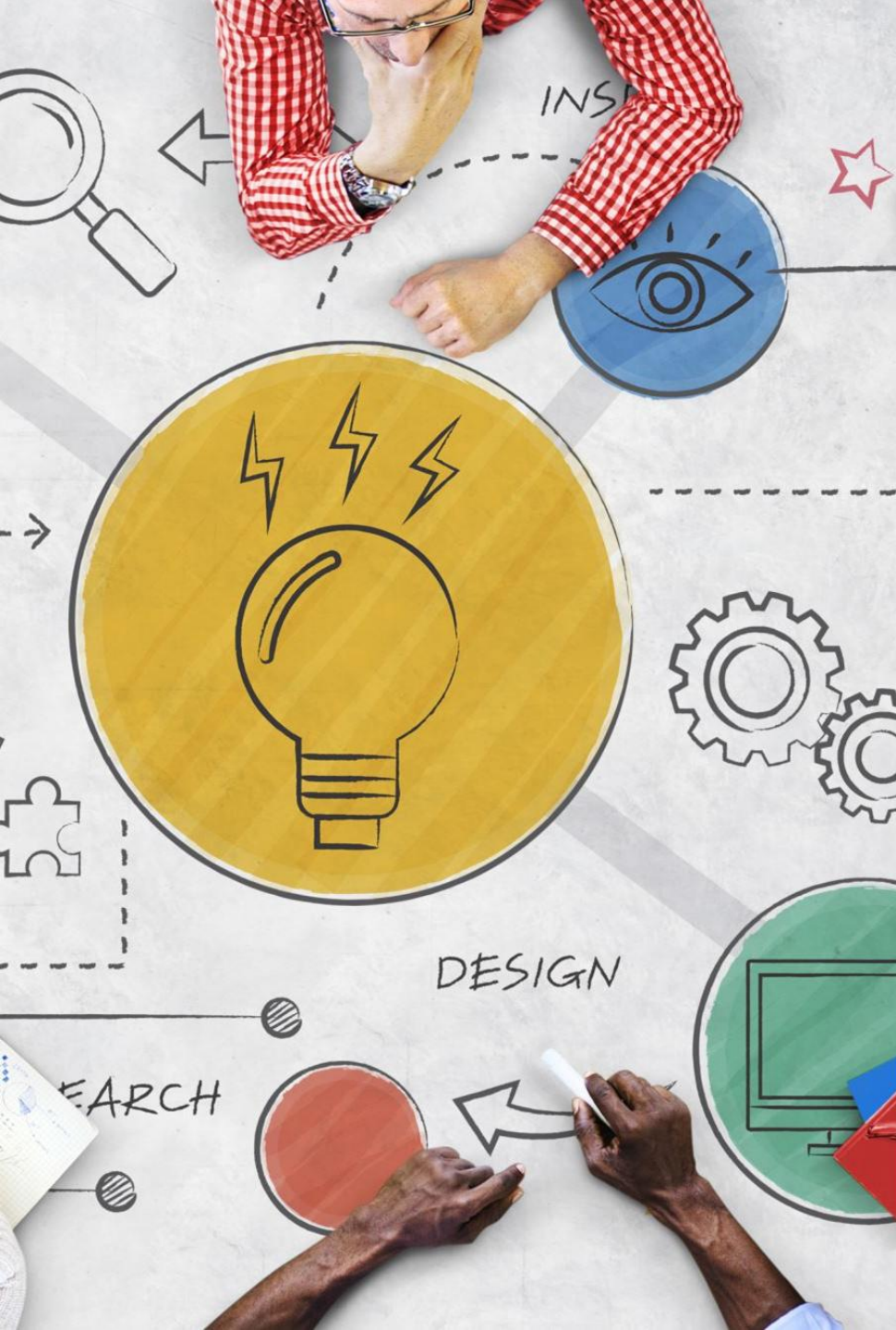
4

Controleer het niveau van
divergentie in het resultaat:

<https://www.datcreativity.com/>

(type de 10 woorden van je groep hier in)





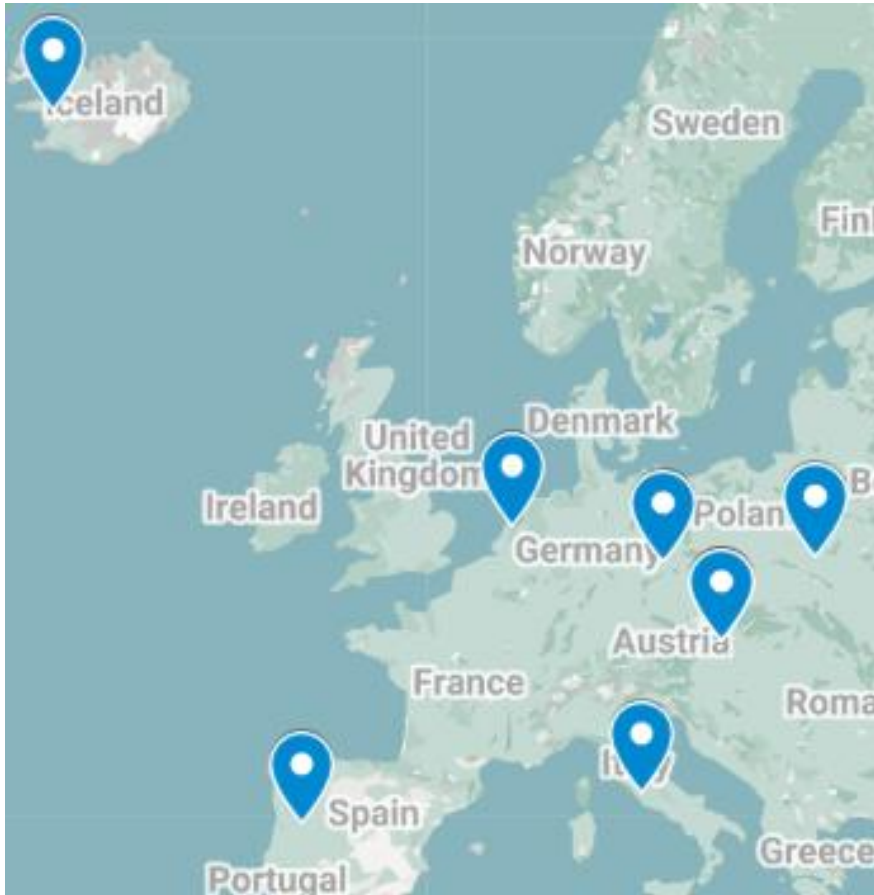
Discussiepunten:

Was er consensus in de groep over de termen (kunnen we het niveau van overeenstemming meten)?

Is het groepsresultaat (gemiddeld genomen) meer divergent dan een individueel resultaat?

Welk aspect van creativiteit meten we hier precies?

Met dank aan:



- University of Economics in Bratislava (Slowakije)
- Slovak University of Technology in Bratislava
- Technische Universität Dresden (Duitsland)
- Instituto Politécnico da Guarda (Portugal)
- Sapienza Università di Roma (Italië)
- Háskólinn á Bifröst (IJsland)
- Maria Curie-Sklodowska University Lublin (Polen)



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Bedankt!

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<https://tlc.uva.nl/en/article/ct-uni-creative-thinking/>

