



**ETALEE - Workshop**  
**Continuing Education Education**  
**New paradims?**

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# Strategies for CEE & LLL EU

- ▶ **European Year of Lifelong Learning (1996)**
- ▶ **European Year of Skills (2023)**
  - Goal: in 2024 50% of adult aged 25-64 should participate in learning over a period of 12 months (European Commission 2020)
- ▶ **Focus on digital- and green technologies securing innovation, economic competitiveness and sustainable transformations**
  - $\frac{3}{4}$  of all companies in EU report problems finding employees with the necessary skills
  - 28 occupations include engineering and IT report shortages in skilled workers

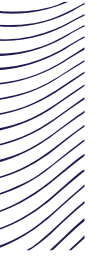


# Strategies for CEE

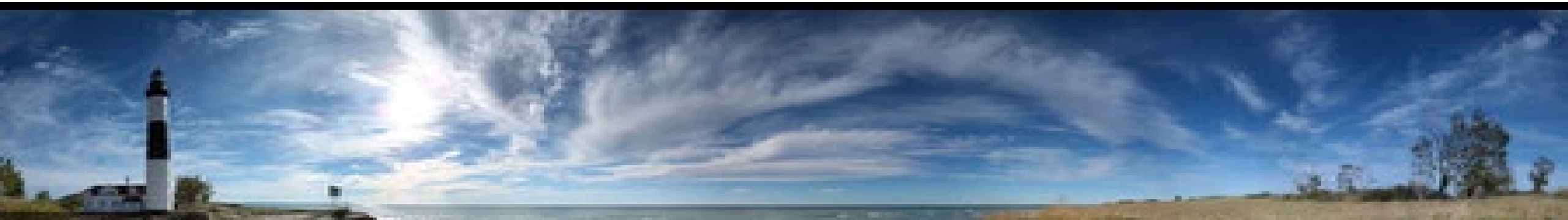
## National level - Scandinavia

- Widely recognized need for the development of CE
  - **Nordic Network for Adult Learning (2019)**
- Strong political influence on the development of CE: financial support, legal framework, limited flexibility
- Focus – making CE accessible. Digitalization, recognition of prior learning, trans-institutional guidance





We will create!  
A Panoramic View of Continuing  
Engineering Education and LLL





lifelong-learning  
informal-learning self-motivated habits countless focus  
evolving practisesel technology  
fluid fast-p  
extend opportunity independent  
beyond enthusiasm attention

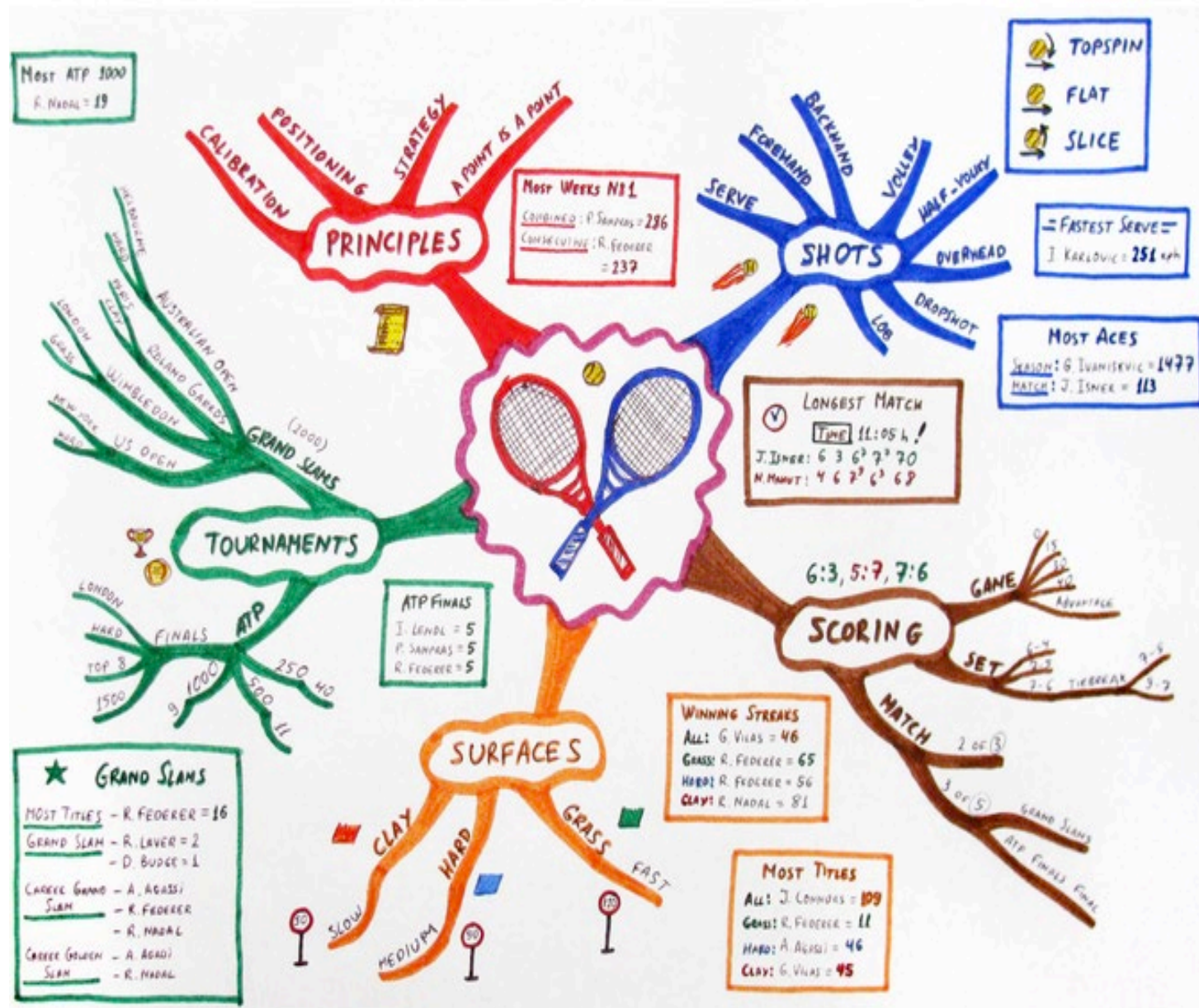
empirical evidence machines  
safety factory electrical  
equipment tool components structures  
designer materials steel housing scheme processor  
gear development mathematics work business digital  
nstruction industry technology  
ofessional empirical build aerospace applied science maintain engineers  
er cog  
mechanism draft diploma tech wheel estate plant education transmission plan invent  
knowledge scientific design mechanical  
blueprint diagram manufacturing metal project  
application drawing home machinery machine worker  
tools machinery machine worker  
builder organizations robotics

education class adult  
learning people non-formal knowledge  
to learn using generation self learner  
retired teacher help  
studying teaching lesson value opportunity  
philosophy training student university classroom  
activity woman adult learning technology attitude  
formal systematic fulfillment male lifelong person

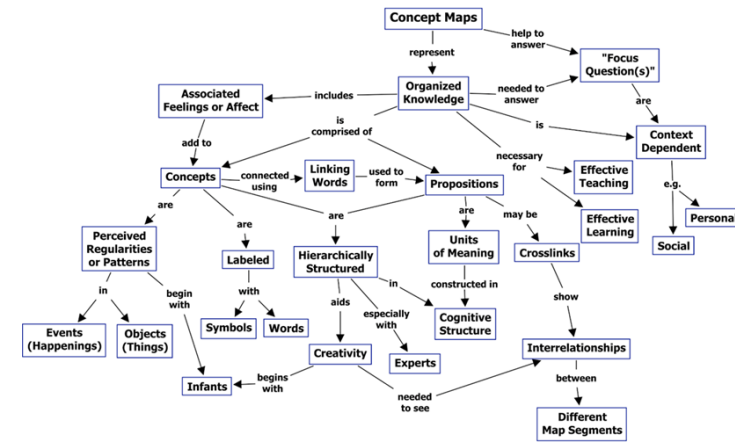
Continuous Learning  
forward inspire ability  
leadership smart teaching internet  
experience motivational solution study challenge  
business competent inspiration university mind  
grow know achievement elearn  
improve motivation goal intelligent develop  
learn educate career possibility creat  
education information confident attitude seminar  
successful academic college skill read



# Concept mapping



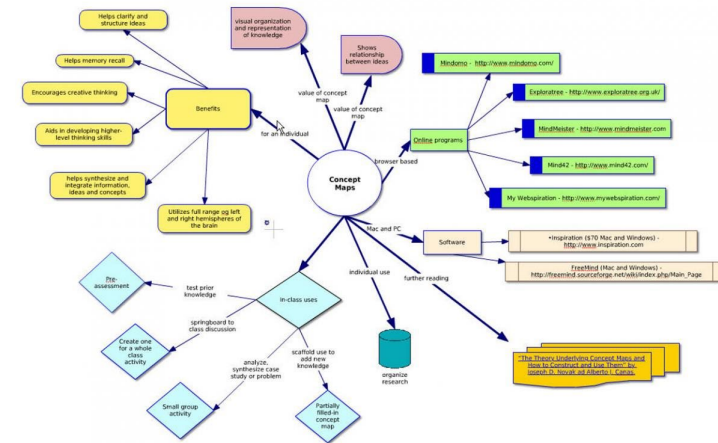
# Defining CEE and LLL ..... WHAT IS CEE & LLL?



## PART 1 (15 minutes)

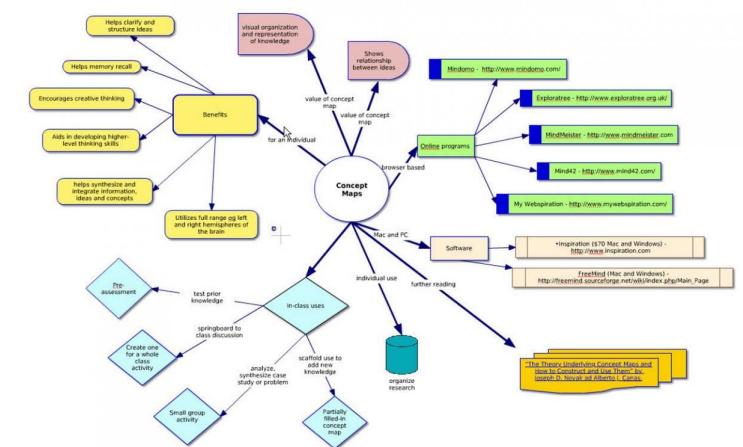
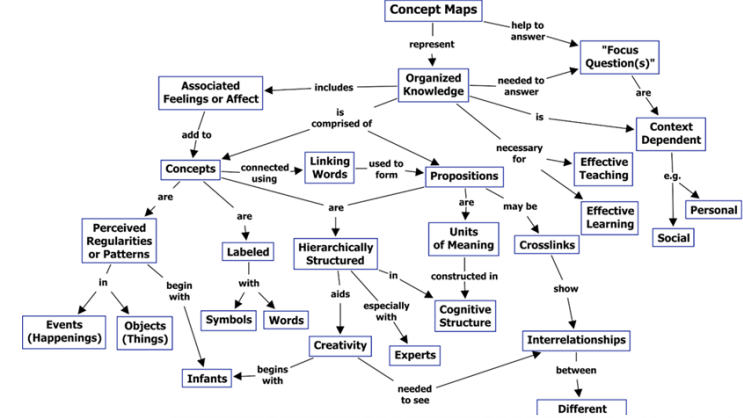
1. What are the concepts that define CEE and/ or LLL?
2. How are these concepts relate to each other?

Go scouting!



# Defining CEE and LLL .....

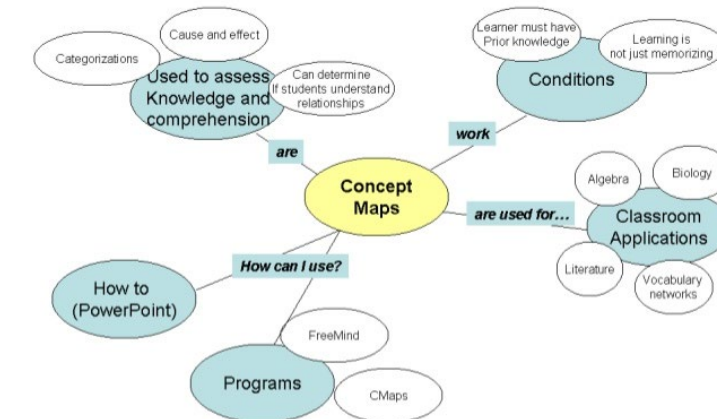
## WHAT are the opportunities and challenges?



### PART 2 (15 minutes)

1. Add to the Concept Map **opportunities** and **challenges** in relation to the defined topics (use e.g. different colour pen and short sentences)
2. Are these topics related in any way?

### Concept Maps



Share!





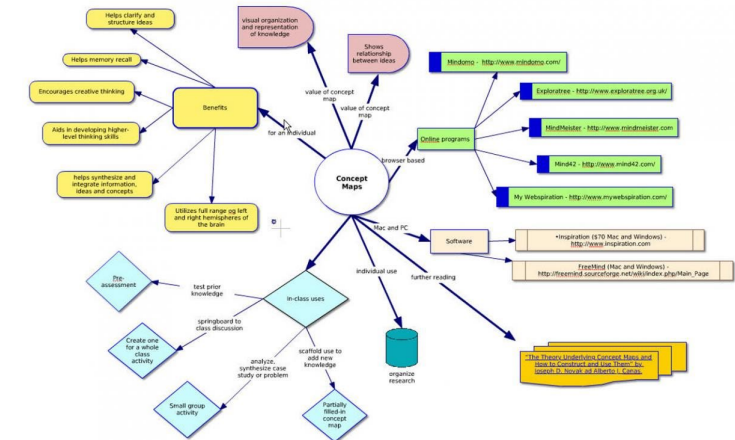
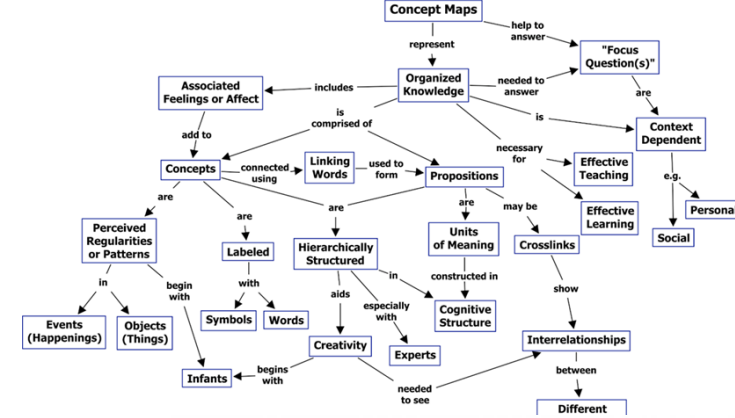
Defining CEE and LLL .....

# WHAT are the future? – looking into the crystal bowl

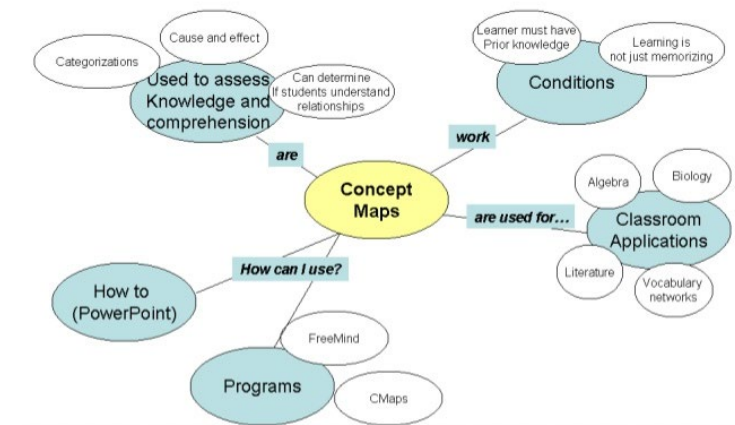
## PART 3 (15 minutes)

1. Add to the Concept Map sentences on what you believe will be the future of CEE & LLL

Share!



## Concept Maps





# Nordic Stem Mapping

## Institutional level

16 interviews at 10 Scandinavian universities

- **Organization:** Internal / External, Central – Decentral
- **Approaches of CE:** Open University – Commercialized courses
- **Academic Staff:** Internal / External - Incensement structures
  - Collaboration with companies, flexibility
  - Pedagogical training - didactics
- **Learning outcome:** Engineering/IT or other needs?



# The Nordic Engineering Hub



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*KTH, AAU, AALTO, RU, UiS*

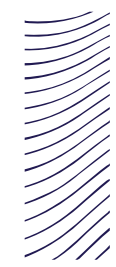
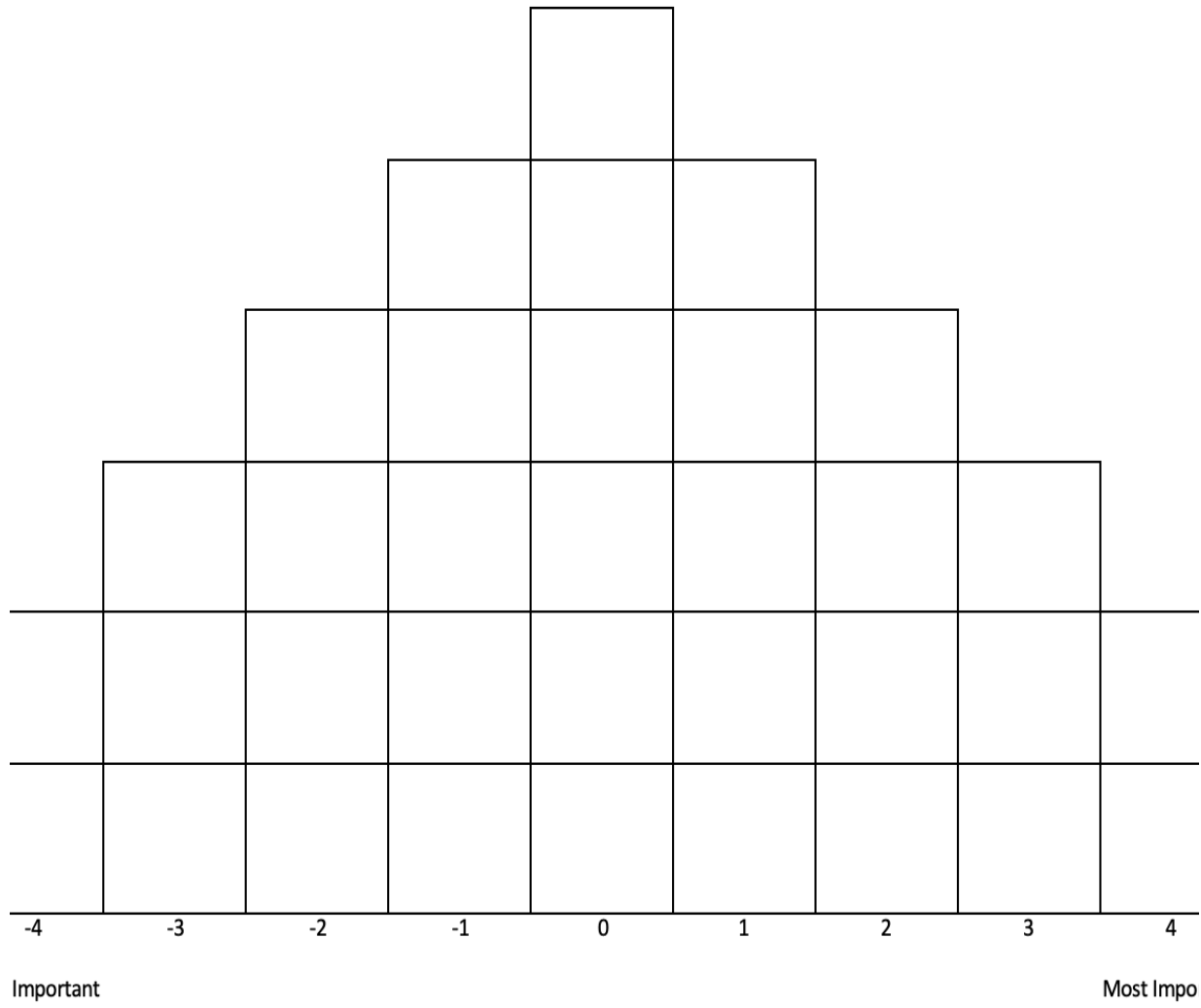
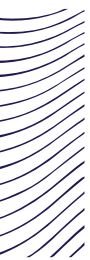




## - Q-Study

- Qualitative/quantitative method
- 32 item cards
- How important are the following ...? (supporting the implementation of STEM continuing education)
- Rank statements
- No right or wrong answers – patterns
- Each block is only for one card



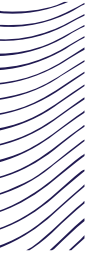


## The Q-sorting instruction

Remove the cards and write the number of each card in the particular block of the Sorting Gritt







# Having completed the Q-sorting

- Elaborate why you ranked the two particular statements as the most important?
- Elaborate why you ranked the two particular statements as the least important?
- Are there any statements which you think are important to add regarding the given topic that are not yet included?
- Are there any other aspects you would like to address regarding your participation in this study and the program in general?

Having completed the Q sorting, can you please provide the below information:

## 1) Demographic Data

Gender: \_\_\_\_\_ Age: \_\_\_\_\_

Years of teaching experience: \_\_\_\_\_ Subject of teaching: \_\_\_\_\_

University and country: \_\_\_\_\_ Academic title: \_\_\_\_\_

## 2) Post-Sorting Questions

1. Could you please elaborate why you ranked the two particular statements as the most important?

chose **No** and **No** as most important because

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2. Could you please elaborate why you ranked the two particular statements as the least important?

chose **No** and **No** as least important (most unimportant) because

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3. Are there any statements which you think are important to add regarding the given topic that are not yet included?

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4. Are there any other aspects you would like to address regarding your participation in this study and the program in general?

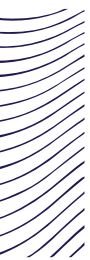
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