



Experiences of teachers with digital learning during COVID-19 pandemic: an exploratory research

Adriaan Vervoort, Nuria Gonzalez Castellano, Wendy Schouteden, Mario Gielen, Katrien Struyven



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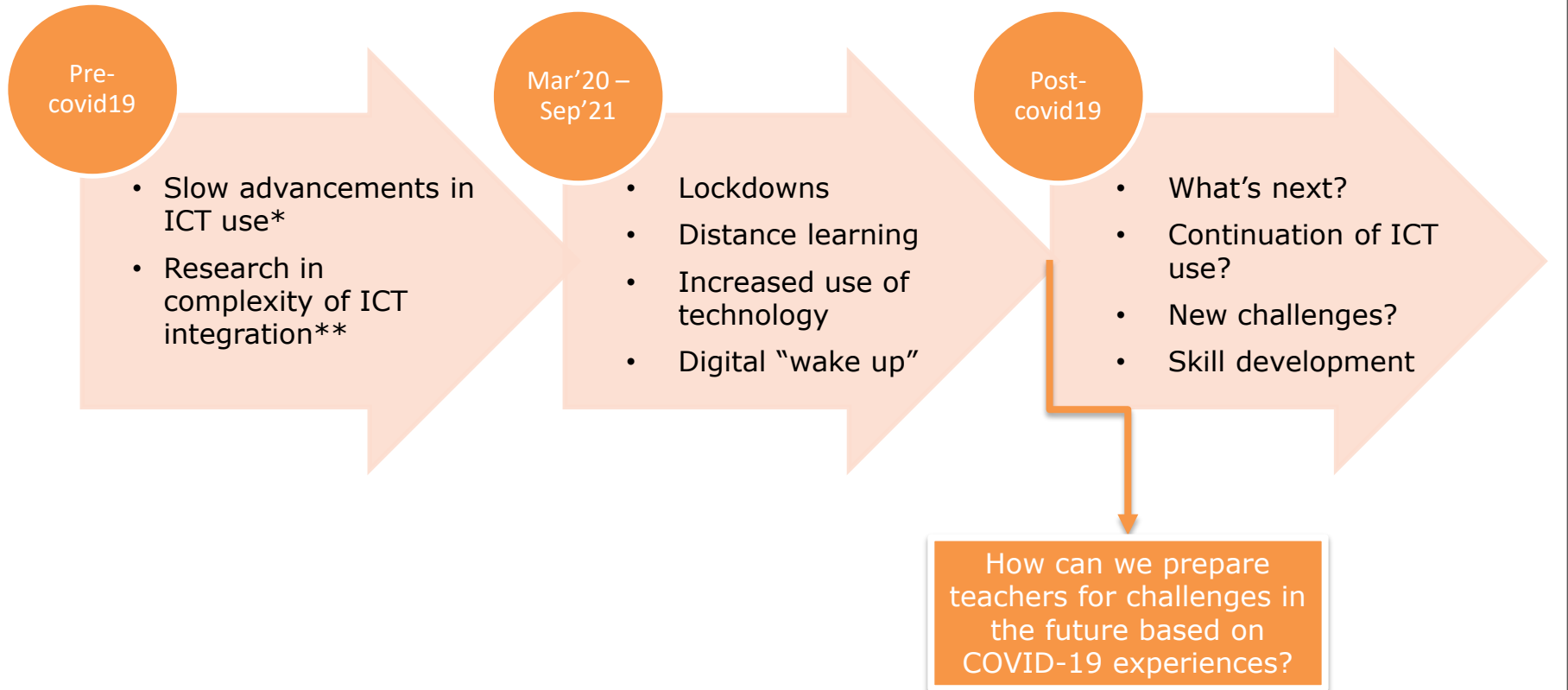
Interreg
Euregio Meuse-Rhine

SKILLS4YOU



EUROPEAN UNION
European Regional
Development Fund

Background



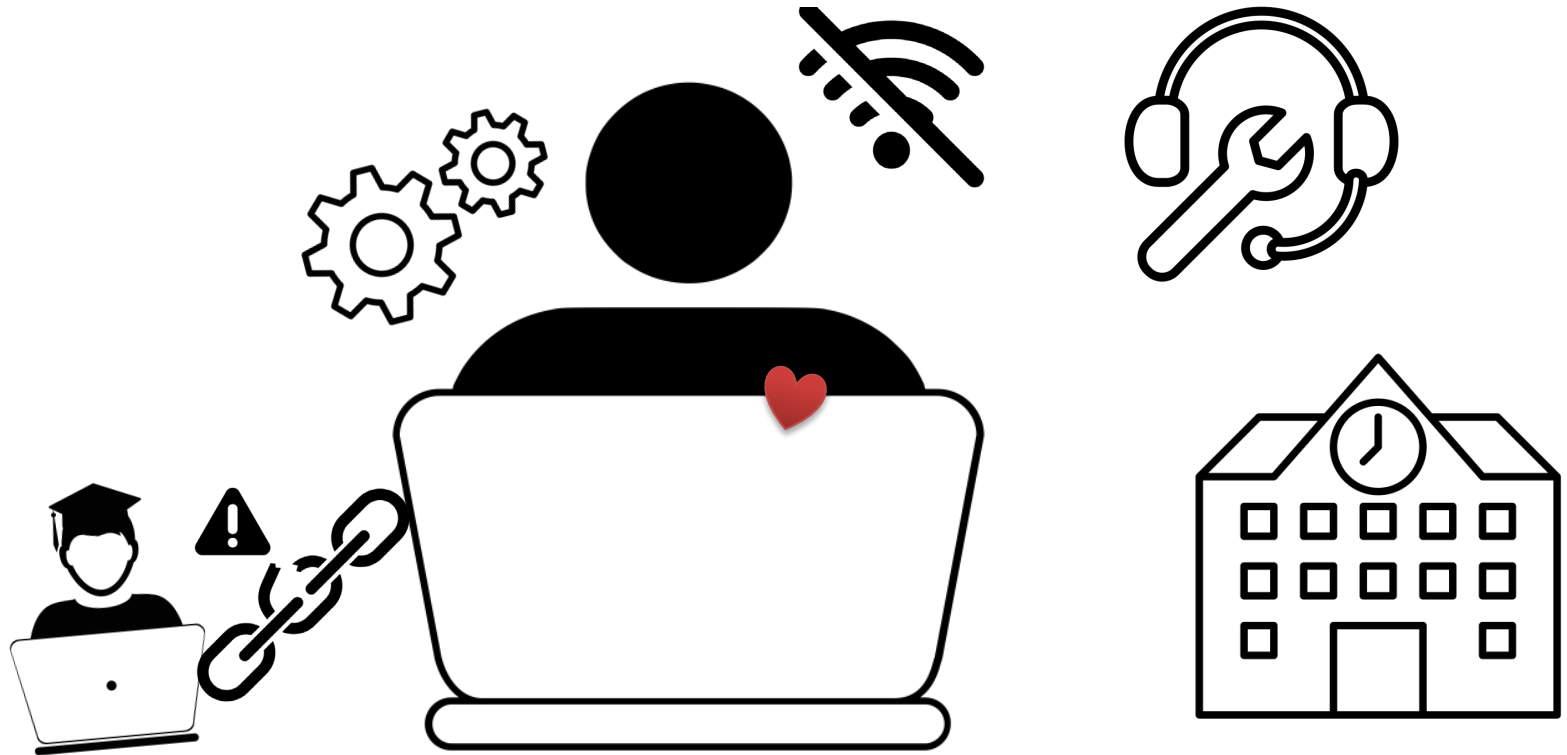
References:

* Howard et al., 2020; Sidi et al., 2023; Tondeur et al., 2017

** Aditya et al., 2021; Bingimlas, 2009; Korkmaz & Toraman, 2020; Sidi et al., 2023; Tondeur et al., 2017

Theoretical framework

→ Holistic and systemic approach



References:

Alenezi et al., 2022; Allen et al., 2020; Alves et al., 2020; Farjon et al., 2019; Ferri et al., 2020; García-Morales et al., 2021; Gurung, 2021; Jones & Kessler, 2020; Kim et al., 2022; B. Klusmann et al., 2022; U. Klusmann et al., 2016; Mahmood, 2021; McGrane, 2022; Mishra et al., 2020; Pedro & Kumar, 2020; Rasmitadila et al., 2020; See et al. 2020; Sidi et al., 2023

Research Questions

- **RQ1:**

What challenges did teachers have with digital distance learning?

- **RQ2:**

What suggestions did teachers have for future training in digital skills?

- **RQ3:**

How was the well-being of the teachers during the lockdown?

Methodology – participants



- Interreg Meuse-Rhein project Skills4You
- Target regions
 - Limburg (BE)
 - Limburg (NL)
 - Liège
- Target group:
 - Teachers/educators in SE and HE
- Open invitation through schools, institutions, and partner networks

Administrative Gliederung – Administratieve indeling – Division administrative



Methodology – participants

Overview of participants

Code	Province	Date	n	SE or HE	Lang.	Length
FG1	Liège (BE)	18/05/2021	9	2 SE / 6 HE / 1 SE+HE	FR	2:56:39
FG2	Liège (BE)	21/05/2021	9	4 SE / 3 HE / 2 SE+HE	FR	2:20:32
IN1	Limburg (BE)	26/05/2021	2	SE	NL	2:04:32
IN2	Limburg (BE)	02/06/2021	2	SE	NL	1:55:38
FG3	Limburg (BE + NL)	09/06/2021	3	HE	NL	1:59:31
IN3	Limburg (BE)	10/06/2021	2	HE	NL	1:39:33
IN4	Limburg (BE)	16/06/2021	1	SE	NL	1:18:24
FG4	Limburg (BE)	29/06/2021	5	HE	NL	2:02:23
FG5	Limburg (NL)	07/07/2021	4	SE	NL	2:13:33
FG6	Limburg (NL)	08/07/2021	5	SE	NL	2:00:53
	Total		42			

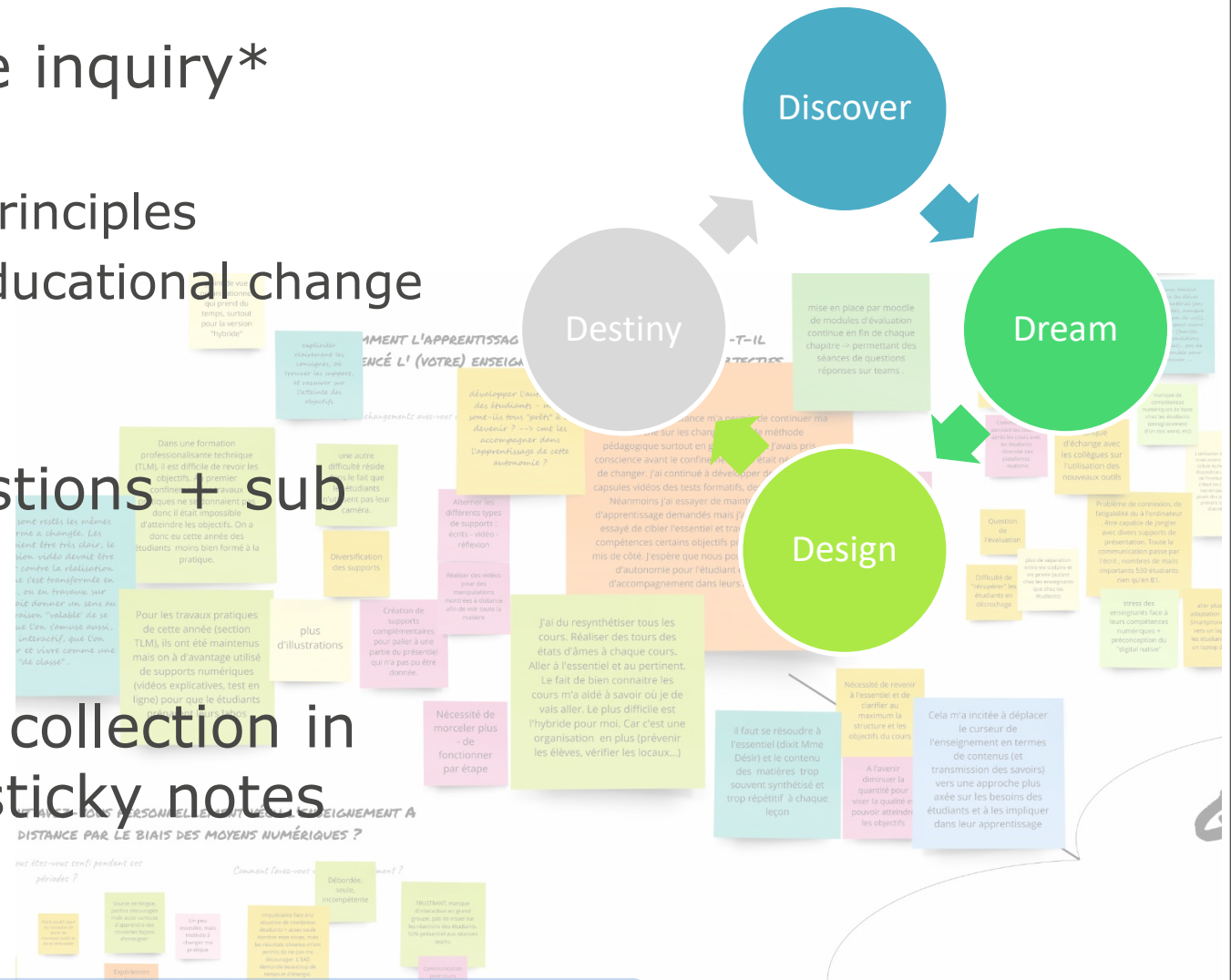
→ Data collected at end of distance learning.

Methodology – data collection tools

- Appreciative inquiry*
 - 4D – cycle
 - Research principles
 - Ideal for educational change research

- 3 main questions + sub questions

- Online data collection in Miro using sticky notes

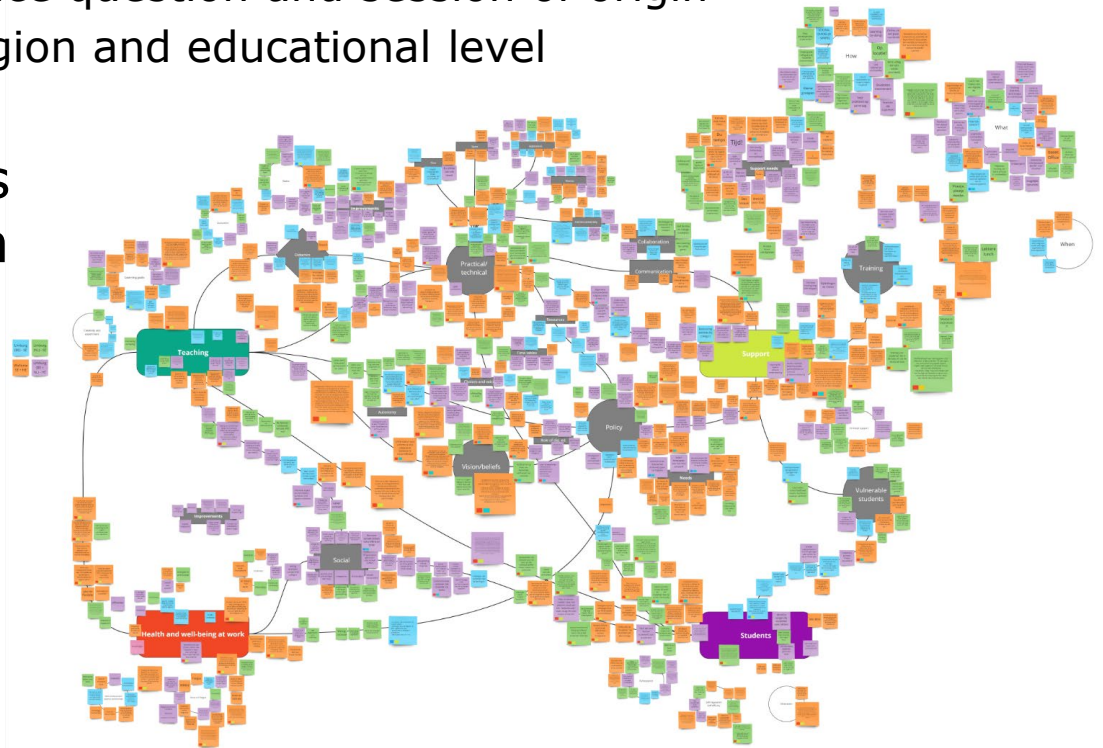


References:

* Buchanan, 2014; Cooperrider & Whitney, 2001; Cram, 2010

Methodology – data analysis

- IPA (Interpretative Phenomenological Analysis)*
- Mapping procedure using sticky notes
 - Coding labels used to trace question and session of origin
 - Colours used to trace region and educational level
- Identifying connections between themes within responses



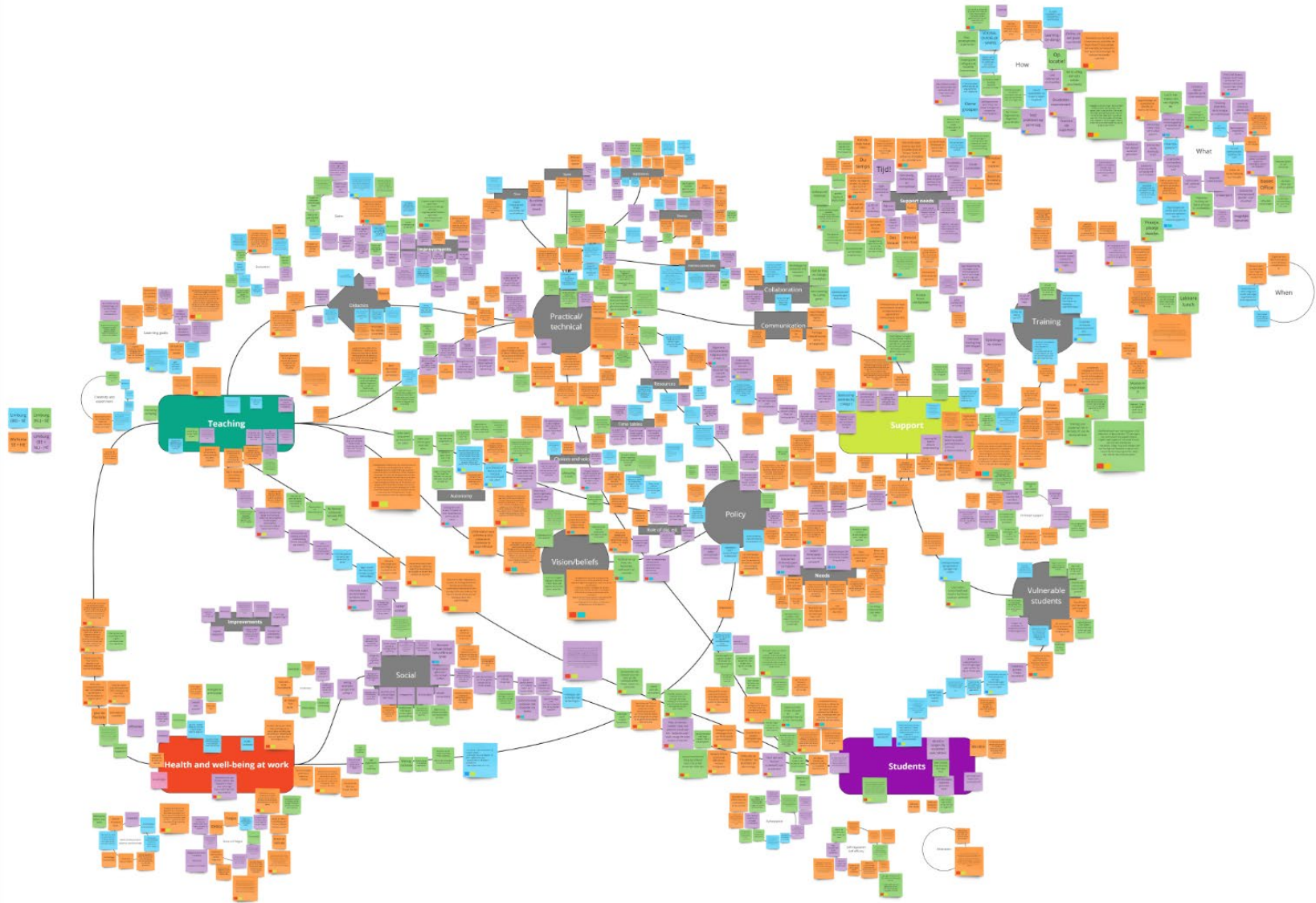
Heeft veel nieuwe mogelijkheden aangetoond en nieuwe werkwijzen. Minder reizen, toch contact kunnen houden. Nieuwe manier van lesgeven (als extra optie)

FG5 Q1.1

"Has shown many new possibilities and new methods. Less travelling, able to maintain contact. New way of teaching (as extra option)"

References:

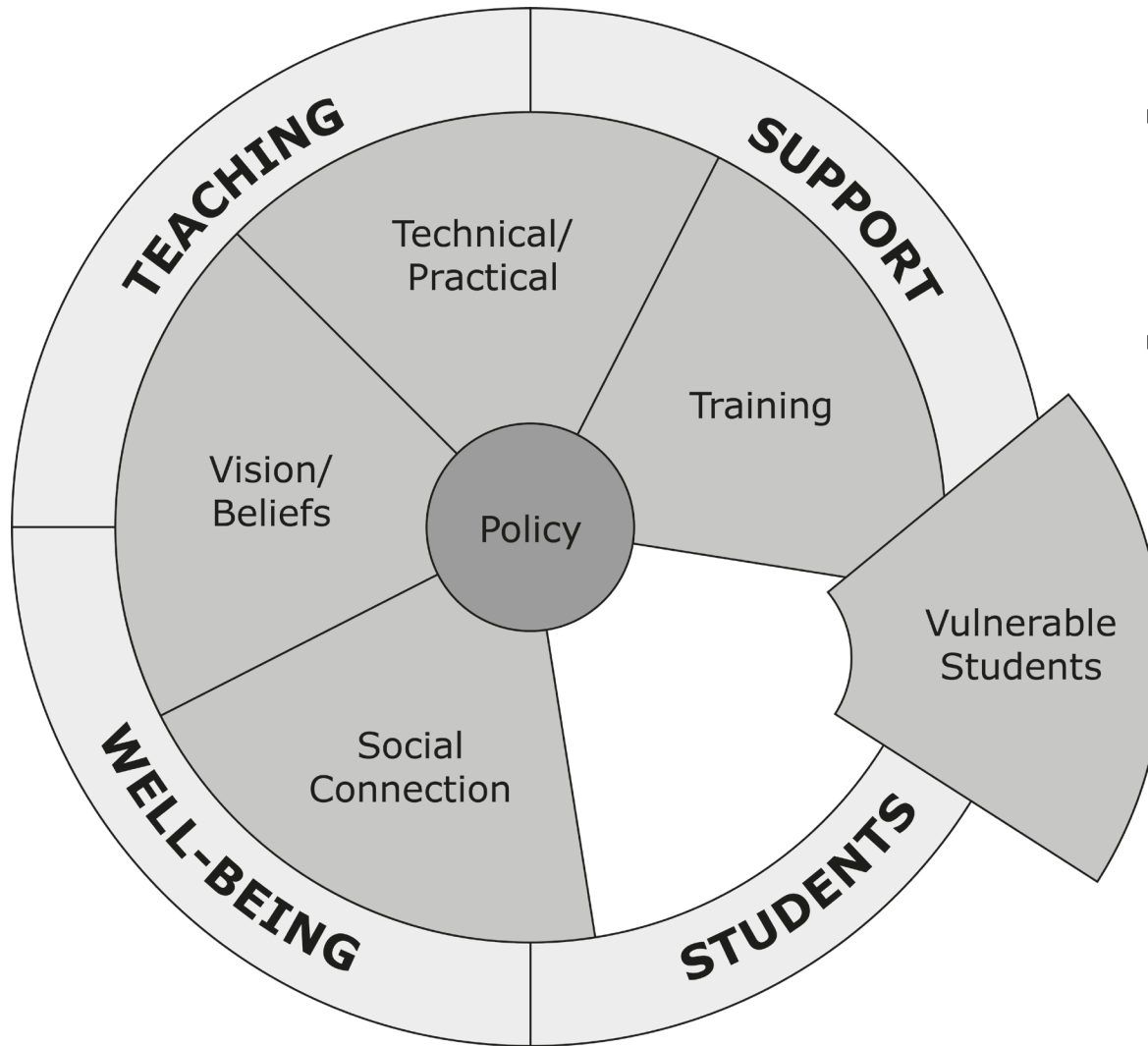
* Crawford, 2019; Noon, 2018; Smith, 2004; Smith & Osborn, 2015



References:

* Crawford, 2019; Noon, 2018; Smith, 2004; Smith & Osborn, 2015

Methodology – identified themes



Rotational discussion disk

- Visual representation of identified themes and their connections
- Middle part can be rotated

Results



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Q1: What were teachers' experiences with digital distance learning during times of COVID-19 lockdown?

- New opportunities in the digital learning environment
 - Exposure to possibilities of digital technology
 - Increased use of audio-visual materials and lesson recordings
- Technical and practical challenges
 - Internet connectivity, devices, applications, space, time
- Teacher perspectives on students' experiences
 - Increased drop-outs
 - A difficult home situation
 - Already struggling in school
 - Lacking the proper technical or practical means
 - Coming from a socio-economic disadvantaged family
 - Language of instruction is not the first language of the student
- The social aspect of the learning environment
 - Seen most detriment (loss of social connection and engagement)
 - Not for everyone the case

Goed en spannend om eens via digitaal les te mogen geven

FG5 Q1.1

"Good and exciting to be able to teach through digital means"

Problèmes d'internet et mon pc m'a lâché en cours de route. Lorsqu'on fait en distanciel, chacun n'allume pas forcément sa caméra et on est jamais sûr qu'ils nous suivent.

FG2 Q1.3

"Internet problems and my pc gave up on me along the way. When we do remotely, everyone does not necessarily turn on their camera and we are never sure that they are following us."

"Sometimes feeling of loneliness due to poorer social ties with students"

sentiment parfois d'isolement de lien sociaux moins riches avec les étudiants

FG1 Q1.1

prettig, meer individueel contact, geen groepsgedrag

FG6 Q1.1

"Pleasant, more individual contact, less group behaviour"

Q2: What experiences are valuable for teachers and their teaching practice in the future?

Improvements to work environment

- Reduced travel times
- Identified benefits for teaching and learning: E.g. Lesson recordings, digital projects, quizzes, digital annotation, online communication, gamification,...

elke les wordt al
gegeven met een
digitaal werkboek
dus dat gaat blijven.
En moet ook blijven
:-)

IN1 Q2.1

"Every lesson is provided with a digital workbook so that will stay. And it has to stay too"

Teachers' visions and beliefs on digital education

- Seeing positive trend vs. nuanced views

"Our slogan is not tool centred, but goal centred"

onze leus is niet
toolgericht maar
doelgericht

IN3 Q2.1

Balancing teacher autonomy

- Absolute freedom vs. rigid decision making

standaardisatie in
middelen. maar
tegelijktijd ruimte
voor bijzondere
toepassingen

FG5 Q2.3

"Standardisation in means, while maintaining space for unique application"

Helpful support measures

- E.g.: Online manuals, instruction videos, sharing experiences, guided work sessions,...

Q3: What suggestions for future training in digital competencies do teachers have?

What?

- Basic skills (E.g.: MS Office pack)
- Digital design skills (E.g.: creating blended learning environments)
- Digital didactics (E.g.: Pedagogical use of technology)
- Practical examples and inspiration
- Practiced based



"Lessons in making a digital lesson"

How?

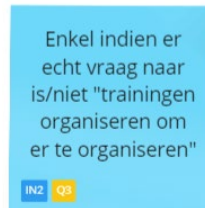
- Practical hands-on sessions
- Small groups
- With like-minded teachers on similar skill level
- Online or F2F
- Trial-and-error
- Collaboration

"In small group, working self-regulated, specific for subject area"



When?

- Start of school year
- "On demand"



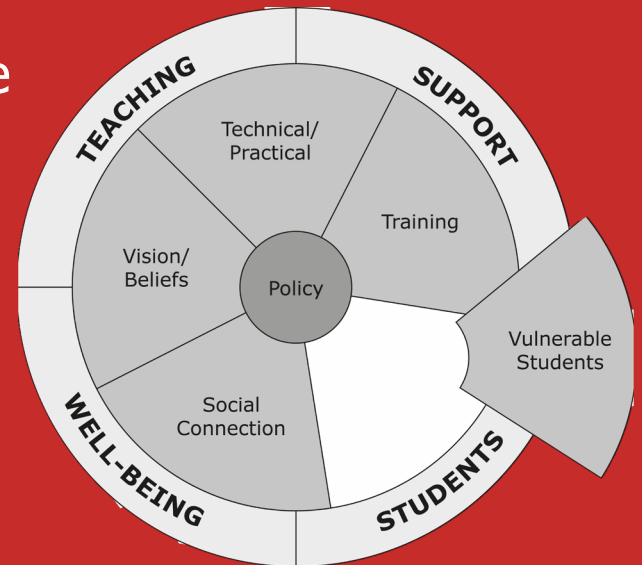
"Only when there is really demand/not 'organise training to organise them'"

So: What does it mean to transition to digital education?

- Health and well-being at work
 - Noticeable impact → both positive as negative
 - - stress, fatigue, loneliness, increased work pressure
 - + flexibility, self-worth, satisfaction, creativity
- Time to change
 - More time needed to prepare
 - Lesson preparation, learning new skills, develop new ideas, solving problems...
- Stability in policy
 - Need for clear, uniform, stable, and transparent policy
 - Expectations need to be clarified
 - Support open, constructive, and safe communication and collaboration within school

Discussion

- Central position of policy is remarkable
- Consequences for the well-being of teachers and students
- Important to consider discussed elements in school policy



Conclusions

- Policy plays a key role in the implementation of digital technology
- Social and physical well-being of teachers and students (especially vulnerable students) should be considered in the digitalisation process
- In order to foster sustainable change, it is crucial for teachers to have positive experiences when utilizing meaningful applications of digital technologies in the learning environment.



- **Limitations:**

- Low response rate and self-selection bias
- Time constraints

- **Recommendations:**

- Further research on the role and position of policy as part of technology integration
- Contextualize other research results related to technology integration within school policy

Thank you for listening

Presenting author: **Adriaan Vervoort**

adriaan.vervoort@uhasselt.be

University of Hasselt Martelarenlaan 42, 3500 Hasselt, Belgium

URise – U Hasselt Research on Innovative and Society-engaged Education

SES – School of Educational Studies



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MIRO – data collection tool

