PEDAGOGICALLY SOUND WAYS OF IMPLEMENTING DIGITALITY
– WHAT IS THE CHALLENGE?

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– WHAT IS THE CHALLENGE?

Contents:
1. Setting the Background
2. Focus on the Pedagogical Infrastructure
3. Take Home Message

PEDAGOGICALLY SOUND WAY OF IMPLEMENTING DIGITALITY?

PEDAGOGY:

The deliberate activities and means intended to affect LEARNING processes.

(e.g. Albion et al. 2015; Baeten 2010; Biggs 1996; Jonassen et al. 2008; Lonka & Ketonen 2012; Rauste-Von Wright et al. 2003; Salomon & Perkins 1998; Trigwell et al. 1999; Watkins & Mortimore 1999)

PEDAGOGICALLY SOUND WAY OF IMPLEMENTING DIGITALITY?

IMPLEMENTING DIGITALITY:

Technology-enabled teaching and learning activities and processes.

(e.g. Albion et al. 2015; Baeten 2010; Biggs 1996; Jonassen et al. 2008; Lonka & Ketonen 2012; Rauste-Von Wright et al. 2003; Salomon & Perkins 1998; Trigwell et al. 1999; Watkins & Mortimore 1999)

PEDAGOGICALLY SOUND WAY OF IMPLEMENTING DIGITALITY?

By implementing digitality we ADD PEDAGOGICAL VALUE

= Promote and enhance the quality of learning and teaching processes.

(e.g. Albion et al. 2015; Baeten 2010; Biggs 1996; Jonassen et al. 2008; Lonka & Ketonen 2012; Rauste-Von Wright et al. 2003; Salomon & Perkins 1998; Trigwell et al. 1999; Watkins & Mortimore 1999)

PEDAGOGICALLY SOUND WAY OF IMPLEMENTING DIGITALITY?

By implementing digitality we ADD PEDAGOGICAL VALUE

Have we done that?

= Promote and enhance the quality of learning and teaching

THERE IS A DOUBT.

(e.g. Chen 2009; Ertmer & Ottenbreit-Leftwich 2013; OECD 2015; Sanders & George 2017; Säljö 2010; Weston & Bain 2010).

processes.

IMAGINE IF YOU HAD ALL THE POWER TO...

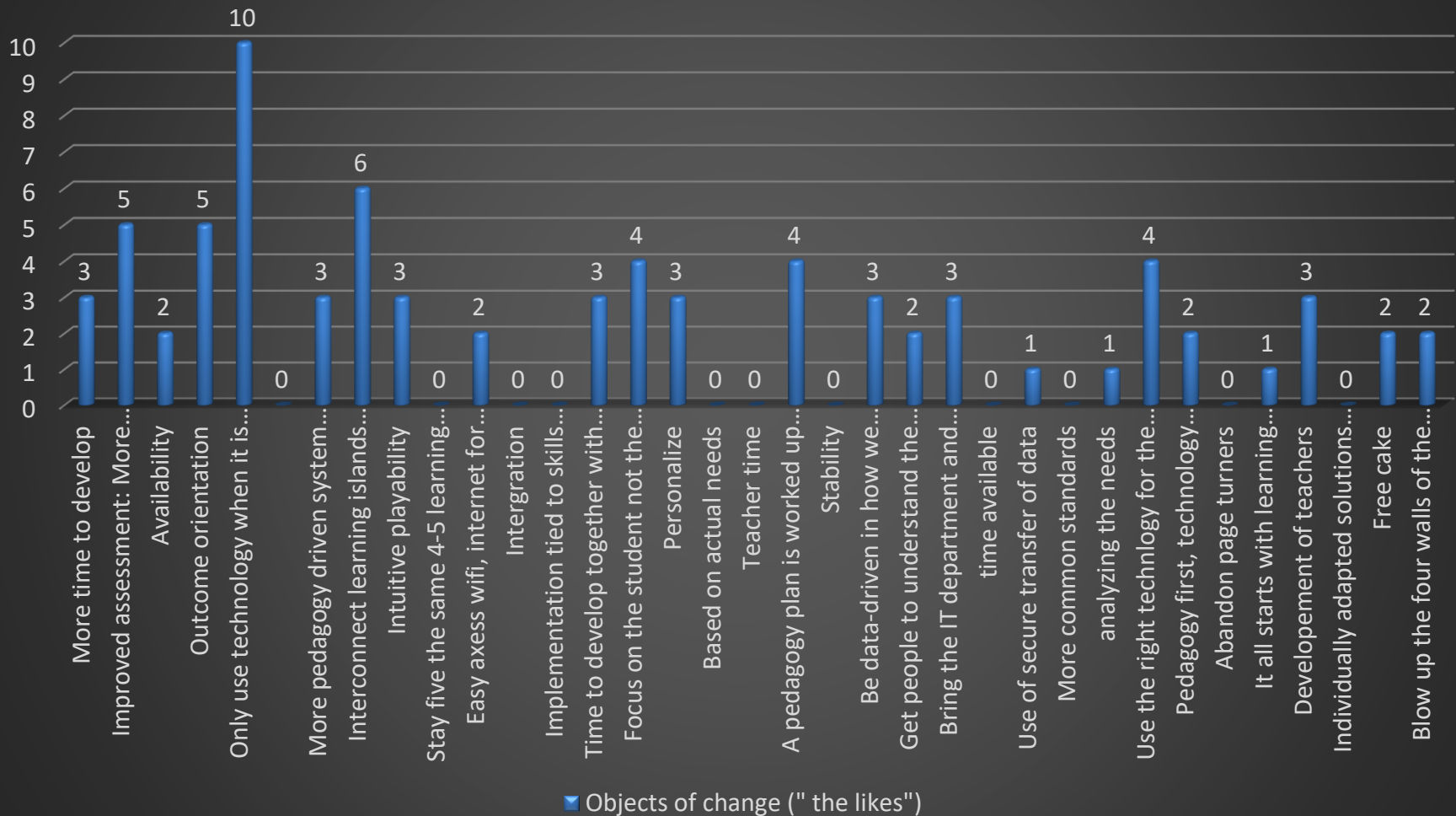...CHANGE THREE THINGS IN THE WAY TECHNOLOGY IS IMPLEMENTED IN TEACHING AND LEARNING PROCESSES...

...WHAT WOULD THOSE BE?

1. Individually for 1 minute.
2. Go to https://flinga.fi/s/FU4ZFAD

OR use the QR-code and SEND your idea!

You can like others' ideas by pressing the chosen idea and then the heart figure!

From the Flinga:

Objects of change ("the likes")

CHALLENGES IN PEDAGOGICALLY SOUND IMPLEMENTATION...

➢ A LACK OF CLEAR GOALS.

➢ REPLACEMENT AND REPRODUCTION.

Identified problems with:
- motivation and regulation of work processes.
- quality of interaction.
- providing support for teachers' professional development.

(e.g.Al-Bataineh et al. 2008; Buabeng-Andoh 2012; Ertmer & Ottenbreit-Leftwich 2013; Chen 2008; Fu 2013; George & Sanders 2017; Kler 2014; Kreijns et al. 2013;Palak & Walls 2009; Säljö 2010; Tezci 2011; Yildirim 2007)

THE ERA OF DIGITALITY AND KNOWLEDGE CREATION

LEARNING AS KNOWLEDGE CREATION IN COMMUNITIES AND NETWORKS OF ACTORS AND ARTEFACTS.

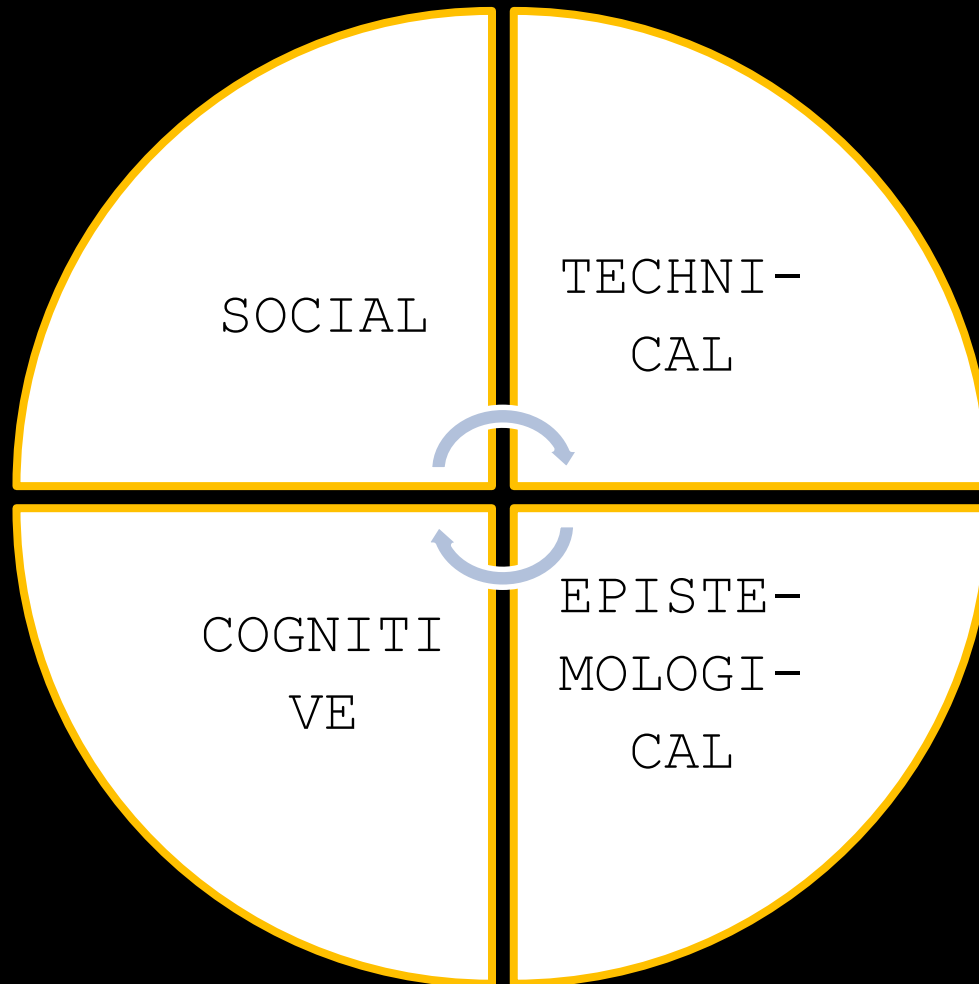→ From preproduction to creativeness and pedagogical soundness.

(Säljö 2010; Hakkarainen 2009; Paavola et al. 2004)

PEDAGOGICAL INFRASTRUCTURE (PI) FRAMEWORK

A frame or a template for educators to

➢ **Critically examine the key aspects and systematically ensure pedagogically sound implementation of technology.**

➢ **Design high-quality blended and digital learning processes and learning environments.**

(Lakkala et al. 2008, 2010)

PEDAGOGICAL INFRASTRUCTURE (PI) FRAMEWORK

SOCIAL

TECHNI-CAL

COGNITI-VE

EPISTE-MOLOGI-CAL

(Lakkala et al. 2008, 2010)

TECHNICAL

How technology and tools support and enhance intended learning objectives and activity?

How the of use technology is organized?

Are support and advices available? How?

EPISTEMOLOGICAL

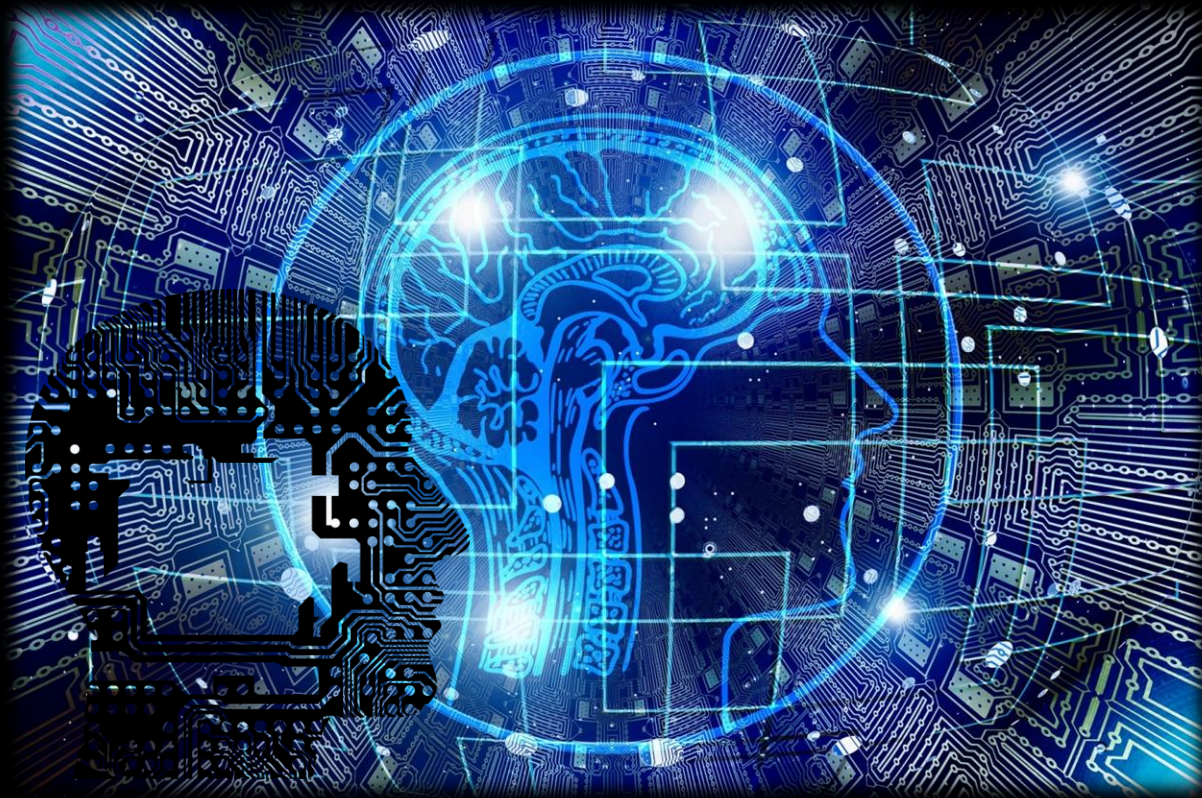**Technology-enabled ways of operating with knowledge.**

Learners', teachers', technology's roles in operating with knowledge?

COGNITIVE

How to support and scaffold activity and higher order critical thinking skills?

Modeling of expert-like practices.

Guidance and feedforward.

SOCIAL

Technology-enabled functioning of learning communities.

What are the arrangements to organize collaboration?

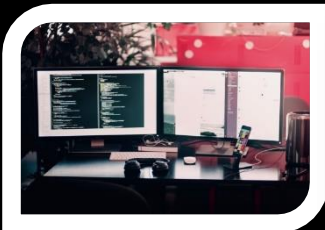How technologies enable engaging and flexible shared activities and collaboration?

AN EXAMPLE FROM THE FDF: FLIPPED MODEL FOR CONSCRIPT TRAINING

1. ACTIVE ORIENTATION
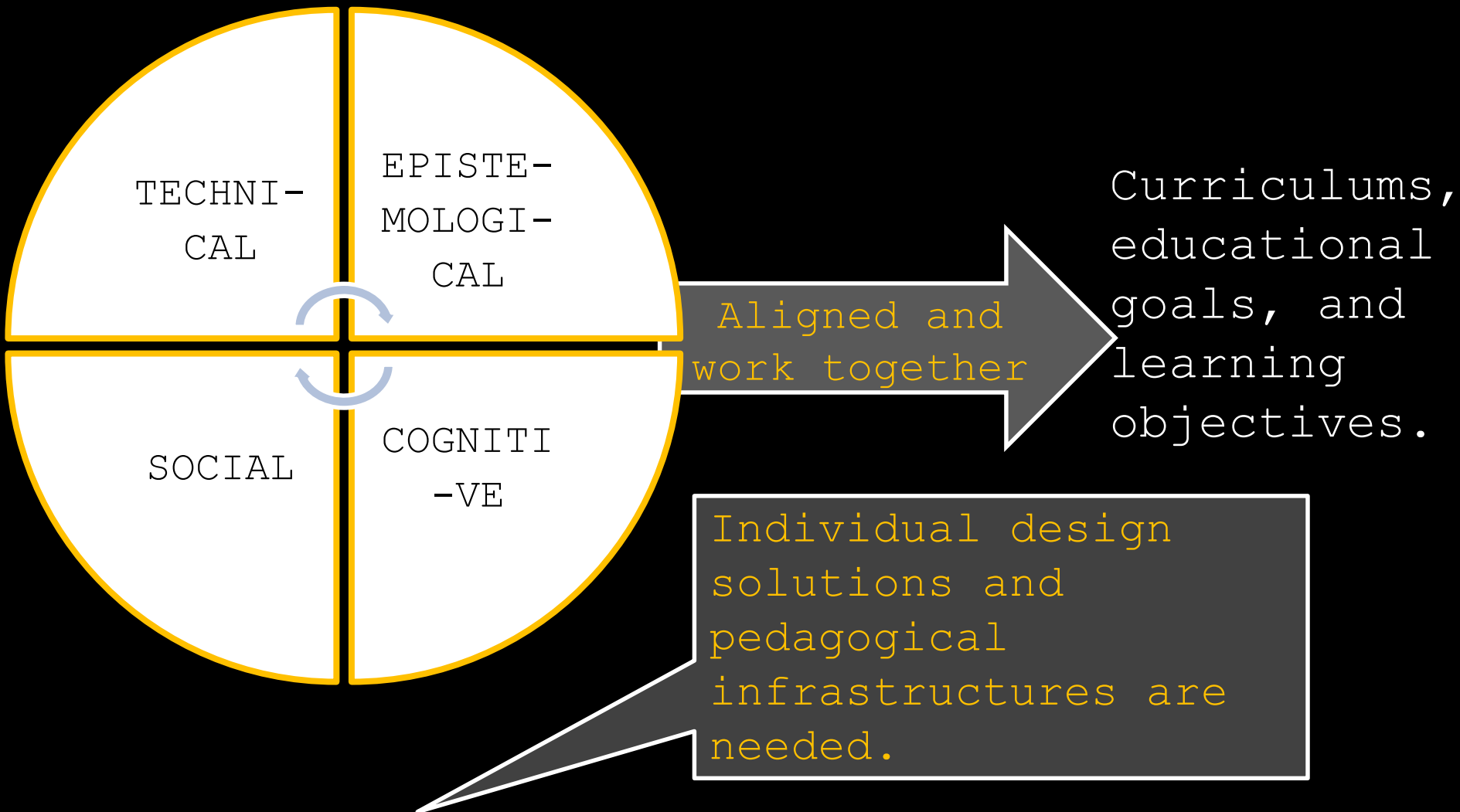

Educational video clips

2. DISCUSSION

Small groups

3. PRACTICAL TRAINING

Application in practise and exercises

PEDAGOGICAL INFRASTRUCTURE (PI) FRAMEWORK

TECHNI-CAL

EPISTE-MOLOGI-CAL

SOCIAL

COGNITI-VE

Aligned and work together

Curriculums, educational goals, and learning objectives.

Individual design solutions and pedagogical infrastructures are needed.

(Lakkala et al. 2008, 2010)

So, what is the recipe then?

...YOU...

...are the agents of change!

Don't forget: Educational systems play crucial role!

DYNAMICS

INDIVIDUAL / ACTOR

Continious development of PI design competences

⬇

Learning by doing, personal practical experiences

⬇

Self-efficacy and confidence to be outside one's comfort zone and re-design practices

SYSTEM / INSTITUTION

Vision building, goal setting and strategic use of PIs, resources

⬇

Culture, practices and professional learning communities

⬇

Tailored professional development programs and support

Tailored professional development programs and
support:

1. Involving pedagogy and real connection to
   teachers' on-going work.

2. Train the teachers by using the same
   pedagogical models and methods, technologies
   and tools they are expected use.
   - Personal experiences.
   - Modeling of expert practices.

DYNAMICS

Design and implemention of high-quality Pedagogical Infrastructures (PI)

Learning event/course PI – Institution-wide PI

Transformation of individual and collective mindsets!

YOU HAVE THE POWER TO CHANGE...

➢ WHAT IS THE MOST IMPORTANT OBJECT OF CHANGE THAT YOU WILL TAKE BACK TO YOUR HOME / NATIONAL INSTITUTION TO FURTHER DEVELOP?

➢ WHY DID YOU SELECT THAT?

1. Select from the Flinga platform.
2. 5 min. discussion with a colleague.

THANK YOU FOR PARTICIPATION!

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