Constructivism and Metacognitive Skills in Learning, Problem-based learning, Phenomenon-based learning, E-learning, Learning Design Process(IO7)

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INTRODUCTION

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Journalism
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Radio and TV Work
Student counselling

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A Brief history of Country Music

Interpretation of ERMIScom network
Helsinki 17.11.2022

1. ORIENTATION

Challenges of wicked problems require a new approach

crossing traditional disciplinary boundaries
sharing knowledge
life-long learning

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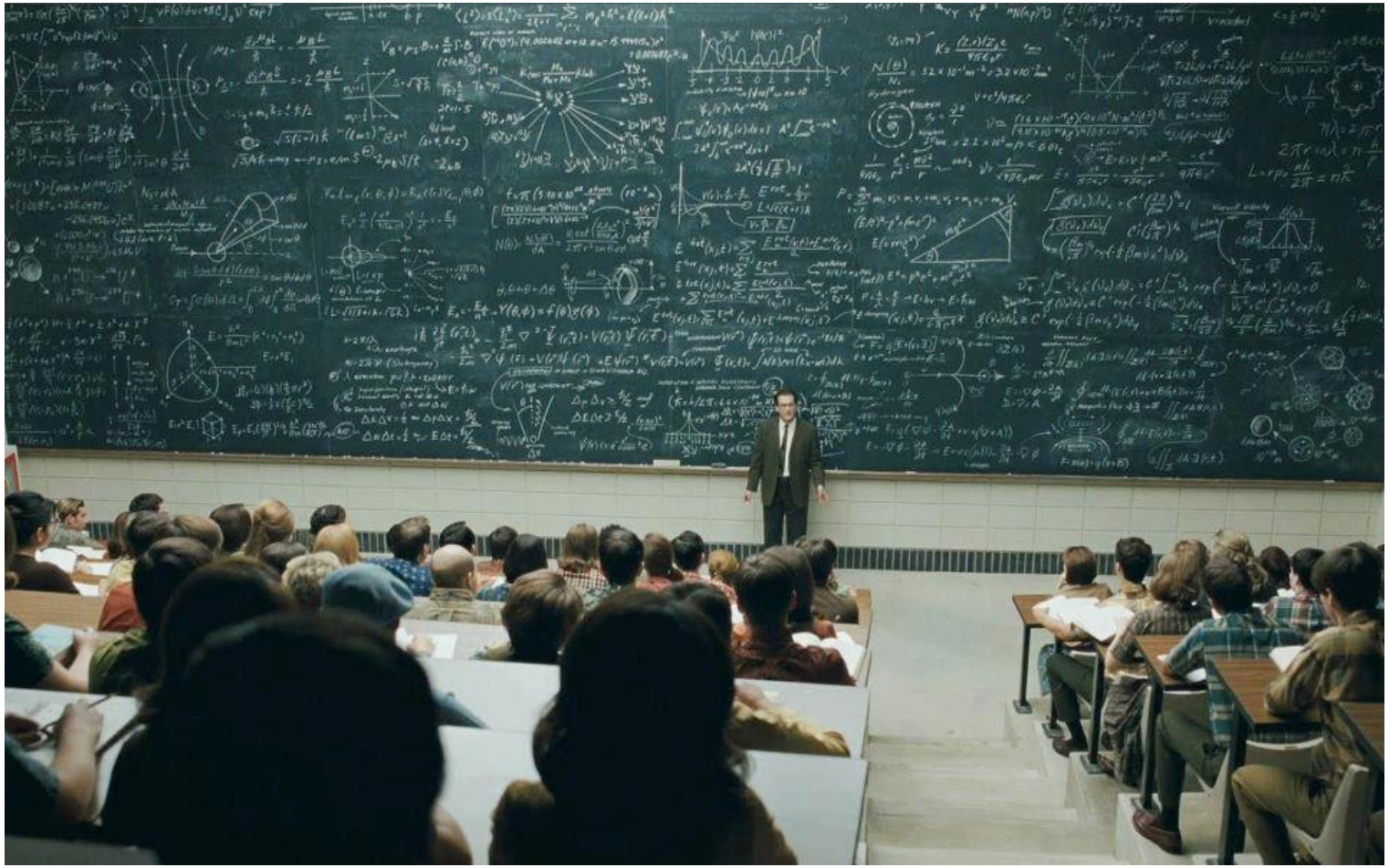

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2. CONSTRUCTIVISM

"Constructivism implies that learners are encouraged to construct their own knowledge instead of copying it from an authority…
…and together with others instead of on their own."

(Kanselaar, 2002)

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Individual constructivism (Piaget)

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Learning progresses through adaptation and organisation

Socio-cultural constructivism

-

involves other people,

knowledge is mediated by community and culture

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learning depends on what individuals already know

new ideas occur as individuals adapt and change their old ideas

learning means rather inventing ideas than mechanically accumulating a series of facts

meaningful learning occurs through rethinking old ideas and coming to new conclusions about new ideas which conflict with our old ideas. In constructivism, learning is represented as a constructive process

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Ownership

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3. Cognitive strategies

Illusory optimism learners are striving for success. Their previous success keeps outcome expectations high and there is a desire to enhance an already strong performance. They are optimistic, active and focused on their tasks, but are prone to blame external factors if they fail for some reason.

Defense-pessimistic students have low expectations and feel anxious about their upcoming performances. Although this strategy may seem like a non-productive or even self-fulfilling approach, studies show that students with a defense-pessimistic strategy seem to be more productive than optimists.

Self-handicappers are terrified of failure, which will lead them to wander off from their focus to create excuses for their failure. This will provide excuses for not striving for oneself and will lead to a decrease in success.

(Heikkilä & Lonka, 2007)

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4. Metacognition

Awareness of your own learning skills.

Self-reflection - evaluation of the credibility of your own thinking.

To know something
vs
Think you know something

Orientation of students?

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Responsibility of one’s own learning

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5. PROBLEM BASED LEARNING

Not to solve the problem itself - but to use it as a trigger for learning and understanding contexts

very socio-constructivist approach

facilitated process

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6. PHENOMENON BASED LEARNING

pretty much same as in PBL, but more multidisciplinary way

Several viewpoints

Holistic approach

examples

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7. E-learning (=D-learning)

What does it mean?

Benefits?

Disadvantages?

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Benefits

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Disadvantages

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Misconceptions

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Learning Management Systems

Software based system that gathers all the resources for learning

eg. Moodle, Blackboard, Google Classroom

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Other tools

Gamification: Kahoot, Mentimeter, Duolingo

Learning apps: Duolingo, Edmodo

Remote participation: Zoom, Teams, Google Meet

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Application of other systems

Google ecosystem: Drive, Forms, Docs, Sheets, YouTube, Calendar

Microsoft: Teams (includes also LMS)

Social Media: Facebook, WhatsApp, etc.

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Ad hoc

Whatever you have available at the moment that serves the purpose.

- privacy and data security considered

Ownership of systems and platforms

Go where your students want to operate (if possible)

Allow their own channels and methods

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8. LEARNING DESIGN PROCESS

recognizing a need for developing course or update

focus group insight

set down learning outcomes (acc. to taxonomy) and build modules

Pedagogical Script

innovate and develop activities

build the content with available tools

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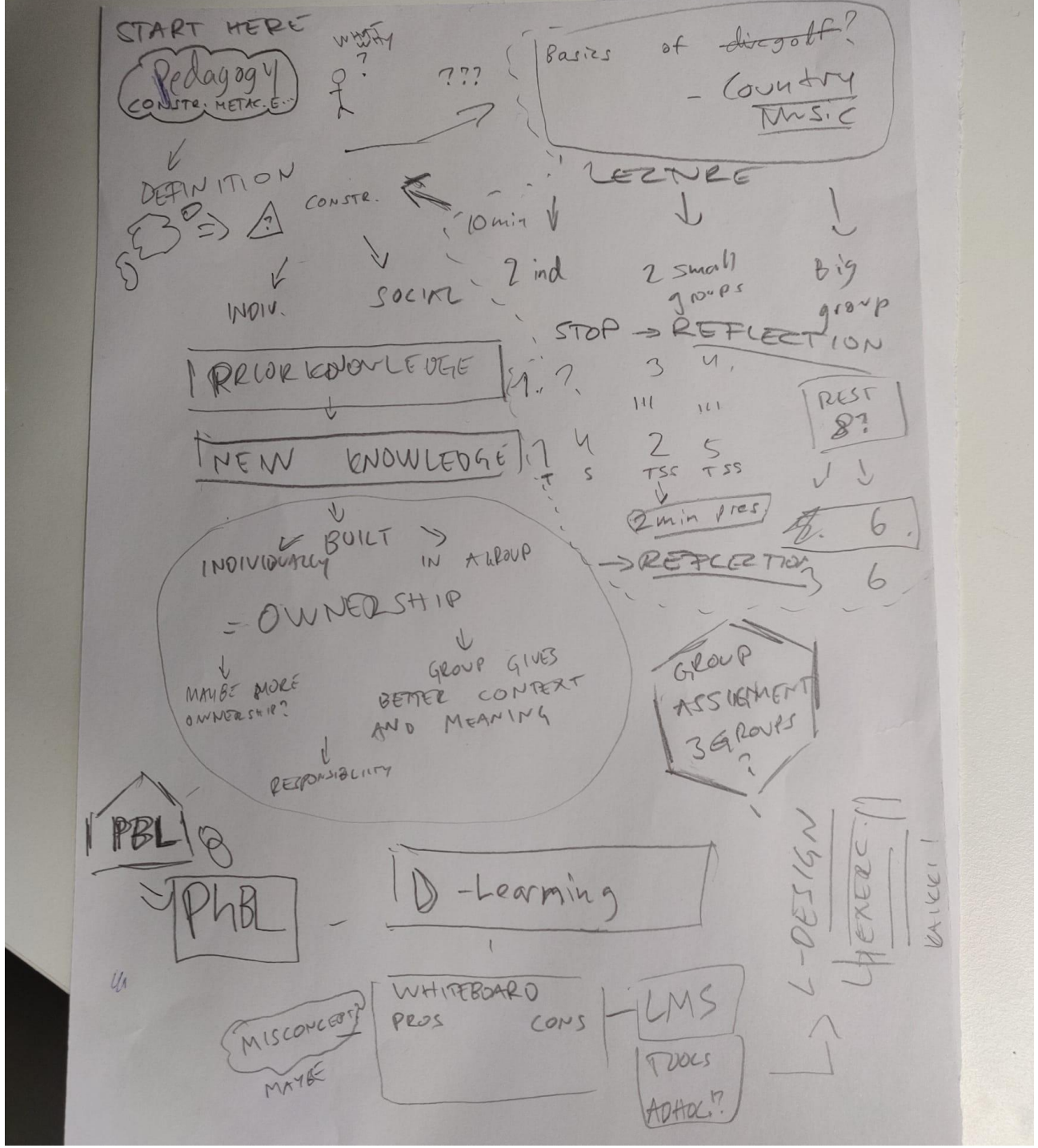
Pedagogical script



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Let’s design together

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GROUPWORK

Design a course, where university student(s) will learn one topic in 54 hours. You can choose any topic related to our agenda. Think especially about the learners point of view - how they would learn the topic in a effective and motivating way.

You don’t have to write or produce learning materials, but design as detailed framework and form/schedule as you can in given time.

Template: https://bit.ly/ermis-group

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IO7

Basic approaches to learning

Metacognitive skills

Basic concepts of:

socio-constructive learning

Collaborative learning

Critical thinking

Lifelong learning

Topic-specific approaches to teaching

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Thank you!

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