Why we study motivation and emotions in the varying learning situations and contexts?
What is motivation and emotion regulation in learning?


- Reaction to a motivational challenges in personal, contextual, social and situational circumstances
- An integral part of the cyclical process of regulated learning
- Manifested on an individual and social levels: Self-regulation, co-regulation, socially shared regulation
- Operationalized in a process of monitoring and controlling

--> methodological decisions: "on-line"
What do we mean by "on-line"?

On-line, Process –oriented approach

- Situational variations
- Social nature
- Process and progress of Learning
- Multiple methods
- "On the fly"
Motivation is situation and context specific

Motivation in Learning is both individual and social

Effects of motivation and emotions in learning is multilayered

Motivation and emotion regulation matters in successful learning
CLAIM + METHODS +/- CHALLENGES = ?
METHODOLOGICAL NEEDS...
...Ecologically valid learning situations
...Capturing motivation in situ, "on the fly"

CHALLENGES...
...control the complexity of different contextual and situational aspect of the real-life learning situations
...Generalization vs. situation – specificity

(Järvenoja, Järvelä, & Malmberg, 2016; Kurki, Järvenoja, Järvelä, & Mykkänen, 2017; Mykkänen, Järvelä, & Perry, 2015; Volet & Järvelä, 2001)
Tässä lastu-aineiston screenshotteja. Valikaa joku, jos kelpaa :)

Author; 17.8.2017
University of Oulu
Multimodal data
HTML5 apps for learning & data collection
Videodata
Multimodal data
METHODOLOGICAL NEEDS...
Acting in an intersection of individual and social.
(Grau and Whitebread 2012; Volet, Vauras, & Salonen, 2009)

CHALLENGE IS...
... To combine individual and group level data

Students’ interpretations of:

*GOAL = Achievement of the personal goal

**GROUP = Group’s role for achievement
CLAIM

Effects of motivation and emotions in learning are multilayered


METHODOLOGICAL NEEDS...

... Using multiple methods to grasp different aspects of motivation and emotions

.... Recognising progress/time

CHALLENGE...

... variation in the sources of different data

...integrating process data vs. data on subjective interpretation
360-degree video capture + audio

EdX logdata, questionnaires, evaluation forms, student products

Empatica E3 multisensor devices that track student EDA and heart rate

Mobile eye tracking
Students’ interpretations of the group workings with a video-stimulus.

EMMA: “It was a huge shock to me; I was so surprised that people can talk to each other like that. So I shut down, and I thought, can I say what I think at all?”

ANNA: “I think we were overruled, and I didn’t enjoy the group work after the conflict; it was just to get the course done. At first, I tried to negotiate, but in the end, I tried not to care and to agree on every solution”
METHODOLOGICAL NEEDS...

... analyzing motivation and emotion regulation interdependently with cognitive processes
(Ucan & Webb, 2015)

CHALLENGES...

...the use of multiple data sources/channels resulting big and complex data (Azevedo, 2015; Bannert, Reimann, & Sonnenberg, 2014; Gašević, Dawson, & Siemens, 2015; ).

Co-regulation of cognition

Shared-regulation of cognition

co- and shared regulation of motivation & emotions
What was the value in the book?
I think it was 1 or something… Let me check.

WHAT AM I THINKING?

PHYSIOLOGICAL SENSOR DATA

VIDEO DATA
Discussion

- Methdological means are there
  > How can we move from in-depth case studies into a systematic knowledge about the progress of regulation?

- The complex designs produce a significant amount of multiple data
  > how can we progress from “more data” to “deep data”?

- New analysis methods is needed (for big data)
  > How can we capitalize the theoretical understanding?

- Research evidence is multifaceted
  > How can we translate this back to the learners?
Motivated, active self-regulating learners in group contexts

Tools to support and prompt individuals and groups in their regulation of motivation as the need emerges.
Evaluation forms were used for prompting SSRL with retrospective dashboards.
Thank you!

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