IS1404 E-READ: Evolution of Reading in the Age of Digitization

Position paper

Name: Rakefet Ackerman

WG(s): WG1

1. **Potential research contribution** in light of, or linked to

A. WG interest and Scientific programme:

Main relevant research domain: Metacognitive aspects of Human-Computer interaction in learning and problem solving

I am a cognitive psychologist and my studies follow the metacognitive approach. This approach highlights the role of subjective assessment, or monitoring, of knowledge in guiding actions people take for achieving their goals. Understanding the factors that affect the reliability of metacognitive monitoring and the associated efficiency of task performance offers a foundation for developing effective study and work techniques.

One of my lines of research concerns the effect of the media, screen versus paper, on the regulation of learning and problem solving efforts (Ackerman & Goldsmith, 2011; Ackerman & Lauterman, 2012; Lauterman & Ackerman, 2014; Sidi, Ophir, & Ackerman, under review). In contrast to the common perception that software and hardware related factors are the main reasons for the less effective work on screen, we found inferior metacognitive processes to underlie screen inferiority. For instance, participants who studied on screen showed more overconfidence and made more arbitrary regulatory decisions regarding allocation of study time. Even technology-advanced students exhibit inferior metacognitive regulation on screen.

B. Action objectives (pages 7-10 in the MoU):

Applicable methods for overcoming this consistent screen inferiority in performance and metacognitive processes were offered in a recent paper (Lauterman & Ackerman, 2014).

Studying metacognitive aspects of technology-supported learning aims to provide bases for improving studying and testing in computerized environments.

Collaboration with educational scientists, developmental scientists, and other Action members should increase the applicability of the insights gained from the above mentioned basic metacognitive research and enrich it with new research questions.

A few examples of potential research projects I would be happy to work on in collaboration with Action members are:

- Effects of various reading disabilities on metacognitive processes in computerized study environments
- Methodologies for overcoming screen inferiority in learning and problem solving
- Effects of study environments' design on metacognitive processes

2. Interest in

A. organizing and/or participating in a **short-term scientific mission (STSM).**

Optional: pursuing what research questions/projects; where to/with whom; linked to what objective(s) of the Action:

In general, I am interested, but did not have chance to learn about the relevant collaboration options yet.

B. organizing and/or participating in a **Training School** (please indicate what kind of training [theoretical; methodological; technical]).

Optional: linked to what objective(s) of the Action: