

A Systematic Review of Group Metacognition Rese...

By: Gamze Türkmen

As of: Aug 28, 2022 6:53:49 PM
580 words - 0 matches - 0 sources

Similarity Index

0%

Mode: Similarity Report ▼

paper text:

A SYSTEMATIC REVIEW OF GROUP METACOGNITION RESEARCHES ON ONLINE ENVIRONMENTS Gamze Türkmen¹, 0000-0002-4695-9159, gamze.turkmen@cbu.edu.tr ¹Manisa Celal Bayar Üniversitesi Metacognition, which is conceptualized by the combination of the terms meta and cognition, is a concept that is difficult to define, but expresses the beyond of cognition (Flavell, 1979). For this reason, the boundaries between cognition and metacognition need to be drawn precisely in order to define metacognition. Studies show that collaborative situations are triggers for individuals to express their thoughts and concepts, especially by expressing their ideas, and this intellectual finding may lead us to construct better mental models for the concept of metacognition. Expression in social interaction is based on observable internal processes. By using external tools in a collaborative situation, students can reduce cognitive loads and at the same time mutually regulate shared external representations. The cognitive value of social interaction emerges when people are unable to individually activate complex hypotheses. For this reason, many researchers have considered it appropriate to draw attention to the importance of the quality of interaction and collaboration. In addition, the quality of social interaction draws attention to metacognitive interaction as well as the cognitive content of the discussions in a collaborative problem-solving activity. These features can be characterized on the basis of the metacognitive rules of interaction, thus suggesting the monitoring of cognitive processes in the social dimension and regulating the use of collective memory. In group metacognition studies, collaborative learning is also important in terms of understanding the thinking and interpretation frameworks of other participants. Collaborative learning and teaching processes are considered a complex social situation, as they involve multiple actors with intentions and interpretations that can affect the knowledge, thoughts and values of others. In such processes, actors need to be involved in the successful construction of shared cognitive products, thus necessitating a common understanding based on focused and shared assumptions for each actor. Since these shared understandings and metacognitive processes can be observed in online collaborative learning environments, reporting of metacognitive activities in these environments has become widespread in researches recently. Although the variables that predict the quality of collaboration in online learning environments are not known precisely, experimental research on this subject has been increasing recently. It is thought that phenomena such as interpersonal synchrony level, metacognitive calibration, and argumentation level have an effect on the quality of cooperation and these effects are bilateral (Gutierrez & Price, 2017; Massoni & Roux, 2017). In this direction, a systematic literature review is needed in which we can see in general terms what kind of variables predict group metacognition in online collaborative environments in the studies conducted between 2015 and 2022. The main research question was; Main RQ: How have researchers studied group metacognition over time? - What types of groups were targeted in group metacognition studies, what was the group size and study duration? - What types of designs, online platforms and analysis methods were used in the research? - What insights have

researchers gained over time on fostering group metacognition on online environments? In the systematic literature review, WebOfScience (SSCI) and EBSCO (PsycInfo, ERIC, Education Source) databases were searched based on the determined keywords. By this, the indicators in the literature in group metacognition area and its relation to quality of interaction were reported. Finally, the findings of this systematic review shed some lights on the group factors of designing online learning platforms for the future researchers, teachers and instructional designers. Anahtar Kelimeler: group metacognition, online learning, systematic literature review 1 2

sources: