Title

The (un)conscious learner: How meta-awareness influences self-regulated learning

Authors

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Abstract (100-200 words)

This theoretical paper investigates a proposed link between self-regulated learning (SRL) and off-task thought by applying the COPES model of SRL. Although previous work suggests learners' thoughts drift off task quite often, there has been little theorizing to date about how they react once they realize they are no longer on task. Here, we suggest that the metacognitive monitoring and control cycle that is integral to SRL may play a key role at this stage of the 'mind wandering cycle' through enhanced meta-awareness. Key concepts discussed include metacognition, meta-awareness, and the aspects of the COPES model. The paper seeks to clarify how learners' self-regulatory abilities might affect their experiences of off-task thoughts through increased meta-awareness. It aims to lay a foundation for future research into the self-regulation dynamics that facilitate effective learning. Empirical studies are suggested to test the viability of this proposed connection between self-regulation processes and off-task thought experiences.

Extended summary (400-600 words)

This paper applies the COPES model of self-regulated learning (SRL) to the context of off-task thoughts to describe how learners react once they realize they are having off-task thoughts. The COPES model is grounded in metacognition (Winne & Hadwin, 1998), the cycle of metacognitive monitoring and control being a core part of the model. This paper describes how metacognitive monitoring can lead to awareness of off-task thoughts and how the reaction to these off-task thoughts is an act of self-regulation.

Learners' minds experience off-task thoughts about 30% of the time during learning (Wong et al., 2022). While research has been detailing how often off-task thoughts occur and how to mitigate them, how learners react when they realize they are off-task has not been explored in depth. Here, we consider reactions to the realization of being off task as an act of self-regulation and apply the literature on SRL to help understand how learners might react. Should SRL lead to meta-awareness, it could balance negative effects of being off task on learning outcomes.

SRL involves monitoring and controlling emotions, motivation, behavior, and cognition to actively manage one's learning process (Panadero, 2017). In contrast, off-task thought refers to the unintentional shift of attention from a task toward unrelated thoughts, which is associated with reduced performance (Bonifacci et al., 2023; Wong et al., 2022). However, learners can become aware of their off-task thoughts; they can become meta-aware (Schooler et al., 2011). Meta-awareness is based on metacognition and is a form of metacognitive monitoring (Schooler & Smallwood, 2009). Metacognition is also a core part of self-regulated learning following the COPES model (Winne & Hadwin, 1998). Learners intermittently engage in metacognitive monitoring and, while doing so, could become aware of their off-task thoughts.

We theorize that off-task thoughts can occur during each of the four stages described according to the COPES model, and that off-task thoughts during one of the stages may have a cascading negative impact on the following stages, resulting in a disrupted learning cycle. However, a learner can become meta-aware during any stage, and a meta-aware self-regulated learner would be faced with

a choice to evaluate whether they want to: (1) return to the task and possibly make an adjustment, (2) continue being off-task, or (3) stop engaging in the learning activity.

This theoretical account of how a self-regulated learner might react to the realization of off-task thoughts has not been empirically validated yet but opens several directions for future research, such as studying learners' reactions to off-task thoughts and possible moderators. Should this application of self-regulated learning to the context of off-task thoughts be validated, it might be possible to promote SRL with the aim of balancing out the negative effects of off-task thoughts on learning outcomes.

Keywords

metacognition, mind wandering, meta-awareness, self-regulated learning

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