

# Themen (werden regelmäßig aktualisiert)

## Unterstützung beim Lernen mit Digitalen Medien

### **Selbstreguliertes Lernen mit digitalem Medieneinsatz – systematisches Literaturreview**

Selbstreguliertes Lernen, welches laut vieler Studien zu einem erhöhten Lernerfolg führen kann, stellt einen festen Bestandteil des Unterrichts dar. Zudem finden digitale Medien vermehrt Einklang in den Unterricht. Sie bieten eine Chance unterschiedliche und innovative Unterrichtsszenarien zu gestalten und Lernprozesse zu unterstützen. Um die Verbindung der beiden Komponenten herzustellen und das Potential von digitalen Medien in Bezug auf das selbstregulierte Lernen aufzuzeigen, soll sich in der Masterarbeit im Rahmen eines systematischen Literaturreviews damit beschäftigt werden, inwieweit digitale Medien das selbstregulierte Lernen in der Schule unterstützen können. Damit selbstreguliertes Lernen jedoch auch bestmöglich in den Unterricht implementiert werden kann, braucht es Trainings für (angehende) Lehrkräfte (Panadero, 2017). Eine weitere Möglichkeit für ein Thema der Masterarbeit ist somit ein systematisches Literaturreview zu bereits bestehenden Trainings für (angehende) Lehrkräfte zur Förderung des selbstregulierten Lernens mit digitalem Medieneinsatz.

### **Supporting self-regulated learning with scaffolds – systematic literature review**

It has been empirically supported and widely theorized that self-regulated learning (SRL) leads to more desired learning outcomes (Schunk & Greene, 2017). Yet, students are not able to apply strategies in their SRL activities during learning spontaneously (Flavell et al., 1966). Scaffolding students during computer-based learning has been shown to be effective (Zheng, 2016). One way to do so is via self-regulated learning prompts during computer-based and online learning. However, prompts could differ on the timing, type, content, and design. Through a systematic literature review, this Master's thesis will present and discuss research on how self-regulated learning scaffolds support students' learning in computer-based and online learning settings.

## Innovative Lehr-Lern-Medien

### **Review of literature on the topic of social regulation in immersive learning environments**

Immersive learning environments, like VR/augmented reality, offer the opportunity to learn in collaborative and interactive settings. However, the complexity of such a learning environment also implies the need to identify the challenges and requirements for successful learning. Particularly, in collaborative settings, the role and impact of regulation needs to be addressed, which can contribute to overcome deficits in learning processes (Reimann & Bannert, 2018). In this master thesis, a systematic literature review of studies on the effectiveness of self-regulation in collaborative immersive learning environments is performed. The aim is to identify the role of self-regulation in such immersive learning environments and the outcome measures used, leading to an empirical review or meta-analysis. Language in English or German. English is needed for scientific texts.

### **Using immersive technology in order to prepare learners for future learning activities**

Immersive technologies, e.g., augmented and virtual reality applications, are an emerging field in educational research. Although there is a growing body of research on VR/AR learning environments, how to use them effectively in the classroom has yet to be investigated. One promising way to use VR/AR could be to prepare for future learning. Research has shown that students can be effectively prepared for future learning if they engage in an authentic problem-solving activity before class and are then taught the relevant knowledge associated with the problem as it was previously taught. For example, engaging with an authentic (virtual) problem-solving scenario prior to being taught by a teacher could help students activate their prior knowledge and/or be more curious (i.e., motivated) about the targeted concept knowledge. This master's thesis aims to investigate how VR/AR can be used to prepare future learning in the classroom, either through a systematic review or an empirical study.

### **Identifying cognitive mechanisms to promote robust learning through the use of immersive technology**

Immersive technologies, such as augmented and virtual reality applications, are an emerging field in educational research. Although there is a growing body of research, the specific cognitive mechanisms associated with the use of immersive technologies have yet to be explored. There is a need for theoretical approaches to describe cognitive mechanisms, which are potentially associated with the effective use of immersive technology to promote robust learning. The goal of this work is to explore potential cognitive mechanisms and their relationship to immersive technologies such as virtual and augmented reality by means of a systematic review or an empirical study.

Bitte wenden Sie sich bei Interesse an einem der aufgeführten Themen per E-Mail an Frau Sawo,  
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