

Exploiting Wearable Technologies to Measure and Predict Students' Effort

by Fridolin Wild

Barbara Moissa, Geoffray Bonnin and Anne Boyer

Effort is considered a key factor of students' success and its influences on learning outcomes have been studied for decades. To study this relationship, researchers have been measuring it in several different ways. One traditional way to measure effort is to rely on indicators such as the time spent on a task. This solution is not entirely reliable, as divergent results can be found in the literature. Additionally, it is not possible to know the internal and external conditions that led to these observations and how they can influence the results. Being able to accurately measure and predict students' effort can contribute to the understanding of its relationship with learning outcomes, and allow teachers to identify students who are struggling or not truly engaged into learning through new tools. One promising way to acquire information about students' internal phenomena is to exploit wearable technologies. In this chapter, after reviewing different definitions of effort, we present a landscape of students' effort measurement and prediction. Then, we discuss how wearable technologies can be exploited to enhance the accuracy of these measurements and predictions.

This is the abstract of a book chapter. The full chapter is available [here](#). Citation: Barbara Moissa, Geoffray Bonnin and Anne Boyer (2019): Exploiting Wearable Technologies to Measure and Predict Students' Effort, In: Buchem, Klamma, Wild (Eds.): Perspectives on Wearable Enhanced Learning (WELL): Current Trends, Research, and Practice, Springer.