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A preliminary study to Assess Self-regulated learning and Academic Emotional Regulation of College Students Using Smartphones

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Abstract

Many of the self-regulated learning (SRL) skills and academic emotional regulation (AER) strategies of student life remain hidden. iSense continuous sensing app provides a novel method to monitor and assess the impact of social interactions, sleep patterns, app usage, and mobility on SRL skills and AER strategies. In a year-long study involving 211 university students, the iSense collected behavioral data from smartphones continuously and unobtrusively. The results revealed significant correlations between passive sensor data and SRL/AER self-reports such as task strategies, time management, situational selection, and social support. These findings enhance our understanding of students' learning and emotional regulation behaviors while offering a foundation for personalized learning support tools based on mobile sensing. By applying dynamic behavioral data, iSense demonstrates its potential for advancing contextualized learning analytics and psychological intervention systems.