A PRACTICAL APPROACH TO SUPPORTING SCIENCE AND ENGINEERING STUDENTS WITH SELF-REGULATED LEARNING

Science and engineering practices tend to be more difficult to teach and monitor than content knowledge, because practices are skill based. This book presents tangible ways for teacher educators and teachers to design learning environments that involve student goal setting, monitoring, and reflection on their performance of science and engineering practices. It models ways teachers can support effective learning behaviors and monitor student progress in science and engineering practices. It also presents practical ways to set up preservice teacher instruction and inservice teacher professional development that address both self-regulated learning and science and engineering practices. Educational research designs are presented from qualitative, quantitative, and mixed methods traditions that investigate student and teacher engagement with science and engineering practices through self-regulated learning.

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