14 - In-service Science Teacher Education, Continued Professional Development | Empirical

SP - (16232) - SUPPORTING SCIENCE TEACHER LEADERS THROUGH A WEB-BASED PROGRAM: ALIGNING PROGRAM AND PARTICIPANTS

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Short Abstract

Science teacher leaders can cultivate and sustain the instructional practices of science teachers. In this study, an online professional development (OPD) program was developed for science teacher leaders that focused on: equitable science instruction, curriculum alignment, and professional development programming. The science teacher leaders were assessed about their knowledge to support science teachers in these areas. This paper reports on the development of the program, the knowledge of one group of science teacher leaders, and their initial participation at the start of the OPD program. The OPD program was developed prior to the recruitment of the science teacher leaders, based on research associated with science teacher leadership, and involved work embedded assignments. Science teacher leaders completed an assessment prior to the OPD program to determine which modules they would take. The science teacher leaders in this study were each responsible for providing science education instruction to teachers in their school district. They came from one state in the United States, were new and experienced leaders, and worked with elementary, secondary, or K-12 teachers. The assessments of the science teacher leaders revealed that they had good knowledge of the science instruction, some knowledge of equity in the schools, and limited knowledge about how to support teachers professionally and how to align the curriculum in their district. The science teacher leaders were assigned to their modules based upon their scores, and they were assigned to complete the modules at certain time points or as they had time to complete the modules. The alignment of the science teacher leaders' professional needs to the modules was helped by the pre-assessments, the research base, and experiences of the design team. However, the modules could have better accounted for their prior experiences and the state science education environment.