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Implementation of STEM education policy: challenges, progress, and lessons learned.

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Summary: This is a case study of the implementation of state STEM (science, technology, engineering, and mathematics) policy over the period of the first 18 months of building a regional STEM partnership. Fullan's change theory is the framework used to determine progress and associated challenges with building a regional STEM educational partnership and establishment of STEM schools through a sustained education reform effort. Key stakeholders who were involved in leading this effort participated in focus groups, as well as individual interviews. Archival documentation was also used. Findings indicate implementation of STEM policy in this state experienced some barriers because of the nature of funding and timeline, as well as the competing agendas and interests of partners who did not have the opportunity to develop common vision and strategic plans prior to implementation. Implications for STEM policy decisions and implementation of other efforts through Race to the Top and other federal funding sources are discussed.

Classification: B10 D30

Keywords: strategic planning; focus groups; partnerships in education; educational change; STEM education; program implementation; case studies; educational policy; regional characteristics; regional programs; interviews; barriers; change strategies; program effectiveness; educational assessment; educational indicators; stakeholders; program attitudes; formative evaluation

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