



Study puts science curriculum reform under the microscope

System-Wide Reform in Science: The Impact of District and School Context, Part I

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OVERVIEW

Authors of this paper explore how districts and schools affect the implementation of curriculum reform, including related professional development, through the allocation of organizational resources. This study is one part of a research project undertaken in the Los Angeles Unified School District, titled System-Wide Change: An Experimental Study of Teacher Development and Student Achievement in Science. The district intended to foster teaching and learning for understanding through the implementation of hands-on, inquiry-based science curriculum units in grades 4 and 5.

STUDY APPROACH

This study uses data from interviews with educators from central office administrators to classroom teachers to explore the range of policies and organizational practices that influenced how the district allocated resources.

SELECTED FINDINGS

The size of the district contributed to fragmentation of this large-scale effort, as did constant change in the district. Teacher turnover contributed to the necessity to repeat basic

professional development, limiting the resources available for more advanced capacity building.

A districtwide effort to emphasize instructional guidance through the central office to improve standards-based teaching and learning brought some coherence to the vision for improving science instruction. However, differences between initiatives created competing change strategies.

District staff reported that state accountability policies related to NCLB shaped local instructional and professional learning priorities, creating a heavier emphasis on reading, English/language arts, and math achievement.

Local instructional priorities initially drove the system's commitment of resources for professional learning to implement inquiry-oriented science. However, when a shift of the science reform strategy introduced an alternative curriculum, fewer resources were allocated to support the professional development and the larger-scale change effort was constrained.

Finally, the administrative structure of the district often constrained efficient resource allocation because those involved in implementing the reform were often situated in different lines of authority.

IMPLICATIONS FOR SYSTEM LEADERS

Large-scale professional learning efforts require system leaders to consider a comprehensive view of a district's instructional priorities as well

as local, state, provincial, and national influences. Questions to consider:

- What factors beyond the district are influencing our instructional priorities?
- Do we have competing local initiatives related to our instructional priorities? How can we ensure alignment of these initiatives and our professional learning efforts to maximize resource use?
- Which staff members in the system will have the authority to allocate resources as needed? What structures and lines of authority are in place to facilitate communication, knowledge sharing, and informed decision making?
- How will we track and assess resources allocation to know if our investments are worthwhile?
- What is our long-term vision for improvement initiatives? What strategies are we employing to ensure full implementation and eventual sustainability of large-scale change efforts?
- What data will help us monitor and assess our efforts to maintain continuity over time as staff leave or move to other positions?



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