

Theory of action for resourcing professional growth

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Abstract

Purpose – Organizational characteristics and systemic structures that prioritize and resource teacher professional growth and collaboration are central to the role of districts in developing the ongoing professional growth of teachers. Yet, a key challenge facing districts is a lack of existing systemic structures to support professional growth to foster large-scale instructional improvement. The purpose of this paper is to explore how an organizational resourcing model might be used to build districts' collective capacity to implement the cornerstones of a professional growth system.

Design/methodology/approach – An explanatory case study, in the context of a partnership between a university-based intermediary and three California school districts, is used to illustrate how districts applied a theory of resourcing as a sustainable capacity-building approach.

Findings – The findings of this paper demonstrate that, to varying degrees, participating districts were able to enact elements of professional growth systems through a recursive interaction of schema shifts, resource use, and intentional actions, supporting a practice-based theory of organizational resourcing. While university intermediaries can both mediate and enable the success of locally designed professional growth systems through a supported resourcing model, the key to sustaining change efforts are cross-role organizational schema shifts and actions taken to operationalize underutilized existing, latent resources.

Research limitations/implications – Case studies do have limitations including not being able to make generalizations from the findings and conclusions.

Originality/value – The corpus of research on educational reform and organizational learning in educational research situates the school as the organizational unit of change. This study contributes to the research by elevating districts as the lever of organizational change for resourcing teacher professional growth systems.

Keywords Professional learning, Collaboration, Decisional capital, Professional capital, Professional community, Resourcing

Paper type Research paper

Overview

The primary interest in conducting this study was to build a solid understanding of how an organizational resourcing model might be used to build school districts' capacity to implement and effectively resource a professional growth system. The context for the study is based in prior research carried out by the authors to identify four research-based, interconnected components of effective professional growth systems. That research has shown that intentionally targeting implementation of these key components, as cornerstones of a professional growth system, holds the potential to accelerate improvements in teaching and learning across the educational system. This study furthers that research by examining how school districts identify and generate the resources needed to effectively implement the key components of a professional growth system and situate it to their local context.

This study draws on the work of Martha Feldman (2004) and Ann Jaquith (2009, 2017), both of whom study organizational resourcing models. It extends that work by examining how helping districts explicitly attend to an organizational resourcing model builds their capacity for the implementation of district-wide professional growth systems. Understanding the essential components of professional growth systems is a necessary, but not sufficient, condition for successfully implementing them. Districts also need to understand how to identify and effectively use resources to support the implementation of that system (Jaquith, 2009).



Research base*Understanding the key components of a professional growth system*

Effectively developing the ongoing professional growth of teachers is not a simple task, as recognized by research that highlights the complexity of how teachers learn (Clark and Hollingsworth, 2002) and the complexity of developing sophisticated instructional practice (Grossman *et al.*, 2009). The key to supporting teachers' professional growth are the organizational characteristics and systemic structures that prioritize and resource professional learning and collaboration (Duke, 1990; Hargreaves and Fullan, 2012). It is widely accepted that systems of professional growth should be data driven, content focused, incorporate active learning, use models of effective practice, provide peer-peer support, offer feedback and reflection, and be embedded in cycles of continuous improvement (Darling-Hammond *et al.*, 2012, 2017). Further, much is known about the types of professional learning supports associated with instructional improvements and effective practice in general. These supports include, but are not necessarily limited to, positions created to support others' learning by providing expert guidance, ongoing and intentional learning events, organizational routines, and the introduction of new tools including instructional materials, curriculum frameworks, and observation protocols (Cobb *et al.*, 2018). Implementation teams and a collective learning approach to professional growth are increasingly viewed as levers for organization change (Higgins *et al.*, 2012).

Togneri and Anderson's (2003) research embraces the pivotal role of districts as they put a systemic approach to instructional improvement in place. Key lessons learned from their research were that leaders must build a shared vision of instruction, develop human capacity, and effectively align resources to enact instructional priorities. Yet, their research concludes that the key challenges facing districts were the lack of existing system structures to support emerging forms of professional development and difficulty identifying resources to launch large-scale instructional improvement efforts.

The authors' (O'Hara and Pritchard, 2016) ongoing research suggests that there are four, interconnected key components of any effective professional growth system. For the purposes of this study, districts were aiming to implement the following four components, situated to their local context, as the cornerstones of a professional growth system:

- (1) *Articulating a set of essential teaching practices, and associated instructional moves, to drive professional growth.* This component is predicated on the importance of providing teacher leaders and their peers with a common language and vision of effective instruction and the instructional shifts needed for Common Core State Standards implementation, and with time for deliberate practice and reflection on new instructional moves that are aligned with this vision (Fogo, 2011; Grossman *et al.*, 2009; McDonald *et al.*, 2013; Thompson *et al.*, 2013; O'Hara *et al.*, 2016).
- (2) *Building human and decisional capital through a collective professional learning approach.* A central component of building professional capital for ongoing facilitation of professional growth includes a shared understanding of how teachers develop their professional practice, together with the capacity to use this understanding to guide dialogue about teaching and learning (Hargreaves and Fullan, 2012; Spillane and Thompson, 1997).
- (3) *Creating conditions for ongoing professional dialogue about instruction and improvement.* This component focuses on the importance of building the organizational infrastructure and conditions to grow, sustain, and spread the use of key practices that support individual and collective professional growth (Dunsmore and Nelson, 2014; Jaquith, 2009, 2013; O'Hara and Pritchard 2016).

- (4) *Fostering a professional culture that cultivates local teacher community in driving instructional change.* Instilling a collaborative coaching and feedback culture, whereby peers can share their knowledge and constructive feedback with colleagues, corroborates a more collaborative model (Berkowicz and Myers, 2014/2015; Jackson and Bruegmann, 2009). Supportive colleagues, engaged principals, and sufficient resources best facilitate these environments and serve to elevate the teaching profession as a discipline of continual and collective growth (Curtis, 2013; Gronn, 2002; Hunzicker, 2013).

Identifying and effectively using resources to initiate and sustain a professional growth system
In addition to better understanding the cornerstones of a coherent and coordinated professional growth system, school districts need to understand how to initiate and sustain that system. Developing local capacity for effectively resourcing reform initiatives is the key. Jaquith (2009) describes instructional capacity as the ability to identify resources and effectively put them into use. Massell (2000) suggests that human capital is an essential construct of district capacity. Spillane and Thompson (1997) present a broader view of district capacity to include human capital, social capital, and financial capital, as critical to the success of reform efforts. Schools that are effective learning systems have a balanced reliance on external resources of knowledge and the information and internal resources and capacity found within the school itself (Opfer and Pedder, 2011). Johnson *et al.* (2011) suggest that, “conceptualizing professional development as the growth of shared resources can avoid some of the difficulties that arise when teacher learning is viewed solely as either an individual or social process” (p. 1). Harris (2010) notes the need for building collective capacity and concludes that “change knowledge is predicated upon a clear theory of action linked to capacity building” (p. 198).

Feldman’s (2004) research on a practice-based theory of organizational resourcing illustrates the reciprocal relationship among actions (in the form of organizational routines), resources, and schemas and how changes in organizational routines and work processes alter resources which, in turn, alter the ability to enact schemas of change. According to Feldman (2004), “actions, in the form of organizational routines, create resources that enable people to enact schemas and create more resources” (p. 296). Feldman’s resourcing theory offers a conceptual lens for understanding how organizations identify, generate, and utilize the full spectrum of organizational resources needed to ensure that professional learning is systematic, integrated, continuous, and sustainable. For example, Jaquith (2009, 2013) extends Feldman’s body of work on resourcing by situating a cycle of action, resource use, and schema shifts in an instructional capacity-building context. Like Feldman, Jaquith’s conceptions of organizational change stresses that change is incremental, recursive, and situated in local context and practice.

University-based educational intermediaries are well positioned to partner with school districts to develop and test approaches for effectively resourcing professional growth systems that intentionally foster greater professional collaboration and promote teachers’ professional growth. Design-based research (DBR) partnerships, for example, offer long-term collaborations between practitioners and researchers that are organized to investigate the problems of practice and implement solutions for improving schools and school districts (Coburn *et al.*, 2013). The definition of DBR proposed by Wang and Hannafin (2005) captures its critical characteristics:

[...] a systematic but flexible methodology aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually-sensitive design principles and theories (p. 6).

DBR partnerships are: pragmatic because the goals are solving current real-world problems by designing and enacting interventions, as well as extending theories and refining design principles; grounded in both theory and a real-world context; and interactive, iterative and flexible (Wang and Hannafin, 2005, p. 11). The potential for successful change is enhanced when a partnership or team is grounded in the premise that the role of the intermediary is to help districts identify and use resources that develop local capacity to foster the professional growth of teachers.

Methods and methodology

The context for this study was a three-year DBR partnership supported by California's State Agency for Higher Education Improving Teacher Quality Grant Program (funded by the US Department of Education). Referred to in this study as the Education Resource Center (ERC), the university-based intermediary's theory of action draws on the theory described above, and as shown in Figure 1. To help districts explicitly attend to the organizational resourcing model when implementing their system of professional growth, the ERC facilitated the work in three ways: supporting districts in shifting their schema to one that fully embraces the role of all members of the organization (schema shifts); helping districts to identify, generate, and effectively utilize the full spectrum of resources needed to support professional growth (resources); and encouraging intentional and strategic action through rapid cycles of learning and sense-making (intentional actions).

Eight districts were invited to join the DBR partnership with the common aim of planning, developing, and testing prototypes for implementing professional growth systems using a resourcing model. Since a central tenet of organizational learning is that learning takes place in groups, each district developed cross-district, cross-role design teams which intentionally included a mix of administrators and teachers (e.g. superintendents, principals, human resource personnel, classroom teachers, and instructional coaches). All districts entered the DBR partnership with different levels of capacity to engage in systems implementation. However, common across their goals was a belief that their current approach to teacher professional growth was not effective and a desire to target high-leverage instructional practices that would ultimately lead to sustained improvements in teaching and learning broadly across their districts.

An explanatory case study design (Yin, 1994) was used to better understand how the ERC's theory of action, when operationalized as an organizational resourcing model, might be used to build districts' collective capacity to implement professional growth systems.

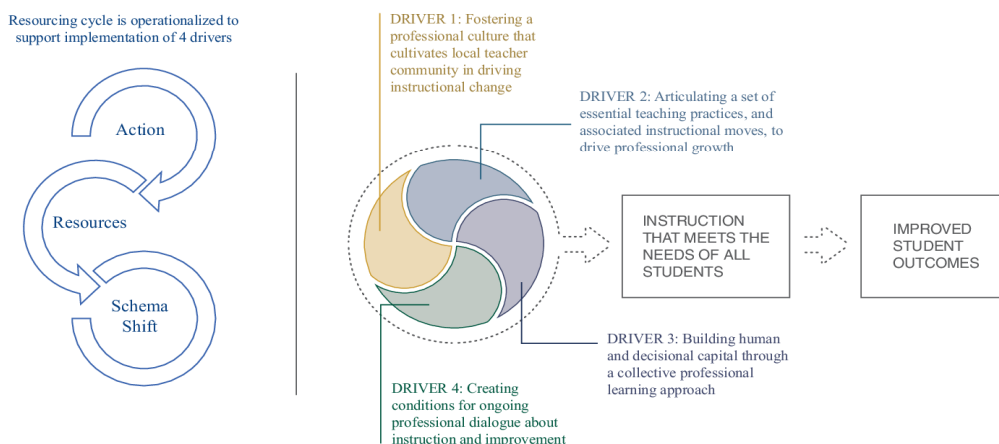


Figure 1.
Theory of action

The ERC’s role was to introduce districts to the current research on professional growth systems, support the DBR partnership with understanding and applying the theory of action to a specific context, and to help the group collectively reflect on the process of implementing a professional growth system. As members of the partnership, the ERC also acted in the role of investigator (participant observer). Over the course of three years, the ERC brought partners together for three days each year and met individually with each partner on a regular basis. Additionally, district design teams adopted different structures to meet, act, and reflect on their ongoing work (e.g. monthly or quarterly work meetings).

Data were collected from three of the eight participating districts. The selected case districts highlight contextual differences in California’s diverse school systems: a small urban/suburban district in the northern part of the state (Case 1), a large urban district in the southern part of the state (Case 2), and a medium rural district (Case 3), also in the northern part of the state. The three case districts serve low-income students and English language learners (see Table I) at levels higher than state and national averages. The Case 1 district design team’s aim was to develop a district-wide integrated professional growth system to replace its existing summative teacher evaluation system. The aim for Cases 2 and 3’s district design teams was to focus on formative aspects of their professional growth systems and align those aspects to their summative teacher evaluation process.

Data sources included interviews with district design team members, video recordings, researcher field notes of district design team meetings, researcher reflections, and handouts and action plans developed by the district teams. Interview protocols were developed to gather data about participant roles, the value of the DBR partnership, how individual/district schema shifted over time, which key actions facilitated progress, and thoughts on how the districts would sustain continued capacity building beyond the partnership.

Data analysis consisted of an initial round of descriptive coding to capture key actions that enabled districts to enact the cornerstones of a professional growth system (four components). From this first round of coding, a subset of codes emerged from the data that represented themes illustrative of the resourcing theory of action cycle (interaction between schema shifts, resource use, and intentional actions). A second round of coding was conducted to capture the emerging sub-codes (Miles and Huberman, 1994). To ensure reliability, three researchers coded the data, compared codes, and discussed disparate coding and areas of confusion. Modification of code definitions and examples were updated in the codebook to remedy noted incongruence. Inter-rater reliability was established when researchers coded the same text with 90 percent reliability. Researchers met on a weekly basis throughout the study to discuss emerging codes, themes, and patterns. Based on this analysis, we generated a descriptive narrative of the cyclical process that occurred in the three case districts. Those narratives allowed for the re-contextualization of the data and subsequently served to identify key schema shifts, which are presented in the following section.

	District type	Schools	Students	English language learners (%)	Free/reduced price lunch (%)
Case 1	North urban/suburban	7	2,170	44	91
Case 2	South urban	1,015	639,337	26	79
Case 3	North rural	19	13,374	23	68

Table I.
District demographics

Source: DataQuest, California Department of Education (2015–2016)

Findings and discussion

Table II documents key schema shifts that occurred in the three observed case districts (column 1). Examples of the types of actions and resources that led to or supported each schema shift are provided in column 2. In column 3, researchers link how the theory of action (column 1), when operationalized through the organizational resourcing model (column 2), supports the enactment of the components of professional growth systems.

The findings support our prior research (O'Hara and Pritchard, 2016) in that all districts implemented the four key components of a professional growth system. We observed in each of the three cases an understanding of the importance of these components, as well as an evolving understanding of the interconnectedness among the components. Although not all districts achieved implementation of their respective professional growth system at the same level of depth, they all engaged in the cycle of resource identification and use for initiating and sustaining the components in their local context. As such, all districts moved further along the path toward implementing key components of professional growth systems, and all districts adopted a process for their continued journey along this path.

The findings also support Feldman's (2004) argument that schema, actions, and resources are mutually influential and cyclical in nature and lead to the generation of new resources, often in the form of latent resources used in new ways. For example, a key schema shift (schema shift no. 1) observed across all three cases was that each team realized that rather than thinking of resources as something new, or always in terms of more money and more time, districts could focus on how to identify and put existing/latent resources into use in new ways. In Case 1, this schema shift resulted in a number of strategic actions where the district: repurposed district leadership team meetings to engage in dialogue around instructional practice; recruited existing teaching staff to fill new instructional leadership positions (e.g. peer facilitator and professional learning support teachers); and replaced their teacher evaluation system with a formal review system consisting of multiple measures and connected to the ongoing system of professional learning. Instructional leadership expertise was tapped into in new ways which then became a resource for supporting professional growth and building more instructional coherence across the district. In Cases 2 and 3, we also saw strategic actions as a result of this schema shift that allowed the district to tap into latent resources in support of the professional growth system (see Table II).

Another key schema shift (schema shift no. 2) across cases was realizing the importance of providing teacher leaders and their peers with a common language and vision of effective instruction, along with the instructional shifts necessary to implement this vision across classrooms (component 1). In addition, district teams realized there needed to be time for deliberate practice of, and reflection on, new instructional moves that are aligned with this vision. While many districts talk about a common vision for instruction, these districts realized that they needed to articulate instructional practice at a grain size that provided educators with a direction for professional growth, and they needed to provide tools for school site educators to engage in cycles of strategic observation and reflection (SOAR). The collective agreement on adopting the SOAR Framework (O'Hara and Pritchard, 2016) as a unifying instructional resource not only enabled districts to enact subsequent schema shifts but also, recursively identify, generate and effectively utilize existing/latent resources. As the SOAR Framework became central to broadly and deeply improving practice, intentional actions were taken to shift and refine existing structures to facilitate peer-to-peer collaboration and feedback on instructional growth. In turn, these structures served as a way of supporting ongoing professional dialogue about instructional improvement (component 3). Creating and resourcing site-based learning communities, a common action taken across the case districts, not only served to facilitate professional dialogue using the common language of the SOAR Framework, but also contributed to a schema shift which allowed the cross-role teams to engage in reflective cycles of inquiry (schema shift no. 2),

Table II.
Case districts

Schema Shifts	Actions/resources	Driver
<p><i>North Urban/Suburban School District (Case 1)</i></p> <p>Schema shift 1 Realized that rather than thinking of resources as something new, district could focus on how to identify and put existing/latent resources into use</p>	<p>Repurposed district leadership team meetings to engage in dialogue around instructional practice</p> <p>Recruited existing teaching staff to fill new instructional leadership positions (peer facilitator, professional learning support teachers)</p> <p>Replaced their teacher evaluation system with a formal review system consisting of multiple measures and connected to the ongoing system of professional learning</p>	<p>Building human and decisional capital through a collective learning approach (Driver 2)</p> <p>Creating conditions for ongoing professional dialogue about instruction and improvement (Driver 3)</p> <p>Fostering a professional culture that cultivates local teacher community in driving instructional change (Driver 4)</p>
<p>Schema shift 2 Realized that rather than focusing on designing a new evaluation tool, the district needed to focus on building a system of professional growth targeting a common vision of instruction</p>	<p>Agreed to a common language around effective instruction – a shared set of high impact practices (SOAR Framework)</p> <p>Developed vision/action plan with the goal of building a system of professional growth</p> <p>Began building an understanding around a common instructional vision by rolling out a district-wide professional learning plan (SOAR Framework), beginning with an identified group of early-adapters</p> <p>Cross-role teams calibrated on the SOAR Framework</p> <p>Communicated efforts regularly with the entire district including human resources, the teachers union, and the school board by leveraging existing meeting venues</p> <p>Focused time on building a community of trust and strengthening relationships between, and among, teachers, administrators, management, and labor to foster sense of collective ownership and responsibility</p> <p>Built Professional Learning Communities (PLC) into the school structure using enrichment teachers to release teachers from class</p> <p>Newly created positions (professional learning support teachers), facilitated the PLCs engaging teachers in cycles of inquiry around instruction</p>	<p>Articulating a set of essential teaching practices, and associated instructional moves, to drive instruction (Driver 1)</p> <p>Building human and decisional capital through a collective learning approach (Driver 2)</p> <p>Fostering a professional culture that cultivates local teacher community in driving instructional change (Driver 4)</p>
<p>Schema shift 3 Realized that all stakeholders need to have regular opportunities to collaborate in the development of a professional growth system, and that trust can be built through collaborative effort</p>	<p>Administrators, management, and labor to foster sense of collective ownership and responsibility</p> <p>Built Professional Learning Communities (PLC) into the school structure using enrichment teachers to release teachers from class</p> <p>Newly created positions (professional learning support teachers), facilitated the PLCs engaging teachers in cycles of inquiry around instruction</p>	<p>Fostering a professional culture that cultivates local teacher community in driving instructional change (Driver 4)</p>
<p>Schema shift 4 Realized that developing and testing a prototype system through cycles of inquiry allowed district to move forward at a realistic pace, creating coherence while still prioritizing the end goal</p>	<p>Administrators, management, and labor to foster sense of collective ownership and responsibility</p> <p>Built Professional Learning Communities (PLC) into the school structure using enrichment teachers to release teachers from class</p> <p>Newly created positions (professional learning support teachers), facilitated the PLCs engaging teachers in cycles of inquiry around instruction</p>	<p>Creating conditions for ongoing professional dialogue about instruction and improvement (Driver 3)</p>

(continued)

Schema Shifts	Actions/resources	Driver
<p><i>South Urban School District (Case 2)</i></p> <p>Schema shift 1 Realized that rather than thinking of resources as something new, district could focus on how to identify and put existing/latent resources into use</p> <p>Schema shift 2 Realized that bringing together cross-role teams, that included teachers, coaches, and principals to learn together around a common vision of instruction was central to building trust and strengthening dialogue around teaching and learning.</p> <p>Schema shift 3 Realized that the development/ modification of tools and curriculum that aligned with the SOAR framework bring coherence to the work, and as a result strengthened the collective professional learning</p> <p>Schema shift 4 Realized that providing supported opportunities for cross-role teams to engage together in reflective cycles of inquiry helped to accelerate improvements in teaching practice</p>	<p>Repurposed existing position to serve as a coach and coordinator for the SOAR Framework</p> <p>District Title III coaches were provided professional learning support to help facilitate PLCs and cycles of inquiry at school sites</p> <p>Teacher leaders were trained at each school site to serve as SOAR expert practitioners and a resource to their grade-level peers</p> <p>Design team adopted the SOAR Framework and practices as their common vision of instruction</p> <p>Cross-role teams calibrated on the SOAR Framework</p> <p>Teachers, principals, and coaches engaged in professional learning through participation in a Massive Open Online Course, SOAR academies and a SOAR fellowship program offered across local district</p> <p>District staff redesigned the ELA/ELD curriculum for the entire district (Start Smart) to align with the SOAR teaching frames</p> <p>District staff developed student assessments that were aligned with the SOAR Framework</p> <p>New Master Plan for the district reflected the new professional growth system with SOAR Framework included as formative assessments of teacher growth</p> <p>District developed videos and shared online as a resource to facilitate cross-site collaboration</p> <p>Schools in local district implemented SOAR focused PLCs facilitated by coaches, allowing teachers to engage in cycles of inquiry around teacher and student growth</p> <p>Local district provided opportunities for school sites to visit other schools sites and observe classrooms where SOAR Framework was implemented</p>	<p>Building human and decisional capital through a collective learning approach (Driver 2)</p> <p>Creating conditions for ongoing professional dialogue about instruction and improvement (Driver 3)</p> <p>Fostering a professional culture that cultivates local teacher community in driving instructional change (Driver 4)</p> <p>Articulating a set of essential teaching practices, and associated instructional moves, to drive instruction (Driver 1)</p> <p>Building human and decisional capital through a collective learning approach (Driver 2)</p> <p>Creating conditions for ongoing professional dialogue about instruction and improvement (Driver 3)</p> <p>Creating conditions for ongoing professional dialogue about instruction and improvement (Driver 3)</p> <p>Creating conditions for ongoing professional dialogue about instruction and improvement (Driver 3)</p> <p>Fostering a professional culture that cultivates local teacher community in driving instructional change (Driver 4)</p>

(continued)

Table II.

Table II.

Schema Shifts	Actions/resources	Driver
<p><i>North Rural School District (Case 3)</i></p> <p>Schema shift 1 Realized that rather than thinking of resources as something, district could focus on how to identify and put existing/latent resources into use</p>	<p>Existing district-wide professional learning sessions were aligned with a focus on the SOAR Framework Coaches were trained to lead professional learning sessions on SOAR for incoming teachers Built the capacity of teacher leaders and associate principals to serve as SOAR experts at each school site</p>	<p>Building human and decisional capital through a collective learning approach (Driver 2) Creating conditions for ongoing professional dialogue about instruction and improvement (Driver 3) Fostering a professional culture that cultivates local teacher community in driving instructional change (Driver 4)</p>
<p>Schema shift 2 Realized that teacher growth is fostered through continuous, supported learning opportunities coupled with formative assessments that are anchored in a common vision of instruction</p>	<p>Design team adopted the SOAR Framework as their common vision of instruction Developed district plan based on the goal of building a system of professional growth with a series of formative assessments aligned to SOAR Framework Targeted roll-out of district-wide professional learning plan beginning with an identified group of coaches, principals, and teacher leaders</p>	<p>Articulating a set of essential teaching practices, and associated instructional moves, to drive instruction (Driver 1) Building human and decisional capital through a collective learning approach (Driver 2)</p>
<p>Schema shift 3 Realized that all stakeholders need to provide input into teacher growth measures and teachers, coaches and administrators should all be calibrated on these measures</p>	<p>Through a process of stakeholder input, choose and implemented teacher and student formative assessments to drive cycles of inquiry and connect to formal teacher review All teachers, coaches and administrators were calibrated on these growth measures</p>	<p>Fostering a professional culture that cultivates local teacher community in driving instructional change (Driver 4)</p>
<p>Schema shift 4 Realized that cross-role teams should participate in cycles of inquiry together with inquiry questions that focus on student and teacher learning</p>	<p>Schools implemented SOAR focused PLCs facilitated by coaches, allowing teachers to engage in cycles of inquiry around both teacher and student growth. Expanded the professional learning opportunities to include coaches, teachers, and principals from across the district</p>	<p>Creating conditions for ongoing professional dialogue about instruction and improvement (Driver 3) Fostering a professional culture that cultivates local teacher community in driving instructional change (Driver 4)</p>

which is a key practice for cultivating professional cultures to sustain instructional change (component 4). These key structures, which were employed to resource organizational routines, also mutually influenced both schema shifts 1 and 2.

Across the cases, we also saw a realization by the design teams that collaboration is central to professional growth across systems. Schema shifts across the cases show that they have reached a conclusion that is consistent with Hargreaves and O'Conner's (2018) concept of collaborative professionalism, which encompasses the traditional aspects of collaboration yet challenges and extends the way in which people work together. Hargreaves and O'Conner's concept also emphasizes a professionalism that reflects a culture in which teachers and educators challenge, critique, and empower each other as they leverage collective skills and capacities to create stronger and better practice. Across the cases, we saw a schema shift where the districts realized that providing supported opportunities for cross-role teams to engage together in reflective cycles of inquiry, and building trust so that these teams could challenge, critique and empower each other, would lead to a deeper sharing of knowledge and expertise, and as such, accelerate improvements in teaching practice. As illustrated in the Case 1 district, their approach to fostering a professional culture to drive instructional change (component 4) was to develop relational qualities such as trust and relationships which served as resources to allow stakeholders to engage collaboratively in the development of a professional growth system (schema shift no. 3). Across cases, we observed districts realizing that shared knowledge, trust, and coherence are all untapped resources. This schema shift is associated with different specific actions in each case, but across cases it resulted in structures to facilitate cross-role teams engaging in reflective cycles of inquiry and building trust among educators, and districts putting these untapped resources into use in support of the professional growth system. In each case, we observed the districts enacting the foundational importance of resourcing opportunities and structures for regular communication and dialogue to build trust and relationships to sustain collaborative, systemic improvement.

A fourth key schema shift (schema shift no. 4) we observed across cases was the realization that developing and testing a prototype system through cycles of inquiry allowed districts to move forward at a realistic pace, creating coherence while still prioritizing the end goal of elevating instructional practice. Across cases we observed districts realize that any reform initiative should be implemented in achievable steps and through strategic cycles of inquiry as this approach allows the district to use data to decide what needed to be refined, what did not work, and to determine a path forward with the next step. In addition, each district realized that cycles of inquiry should be implemented at various levels of the system, from grade levels, to school sites, to the district, and that they should involve cross-role teams with representation of teachers, teacher leaders, coaches, and administrators.

Discussion

Our prior research has shown that intentionally targeting implementation of key components as cornerstones of a professional growth system holds a potential to accelerate improvements in teaching and learning across the educational system. This study furthers that research by examining how school districts identify and generate the resources needed to effectively implement the key components of a professional growth system and situate it to their local context. The study extends the works of Feldman (2004) and Jaquith (2009, 2017) by examining how helping districts explicitly attend to an organizational resourcing model builds their capacity for the implementation of district-wide professional growth systems. Understanding the essential components of professional growth systems is a necessary, but not sufficient, condition for successfully implementing them. Districts also need to understand how to identify and effectively use resources to support implementation of that system (Jaquith, 2009).

This study explored how districts can build collective capacity for implementing professional growth systems through a cycle of resource generation (Feldman, 2004; Jaquith, 2009, 2017). The study findings support and extend the research of Feldman and Jaquith. In all cases, we saw districts: shifting their schema to one that more fully embraces the role of all members of the organization (schema shifts); identifying, generating, and effectively utilizing the resources needed to support professional growth (resources); and engaging in cycles of learning and sense-making which lead to intentional and strategic action (intentional actions).

This study also offers an example of how a university-based intermediary can both mediate and enable the success of local professional growth systems through a supported resourcing model. The ERC's role was to support the school districts with thinking meta-cognitively about intentionally resourcing change, identifying existing/latent resources, developing strategies for putting those resources into use, and drawing on the group's collective expertise to fit them to their specific context. To build decisional capital and collective capacity (component 2) for this approach, the ERC steeped district design teams in the research base of the four system components and the theory of organizational resourcing (ERCs theory of action).

An example of how the ERC both mediated the district change process and served as a resource is illustrated in the districts' adoption of the SOAR Framework. The ERC intentionally introduced the research-based SOAR Framework as an exemplar of what an articulated set of essential teaching practices might look like within a system of professional growth (O'Hara and Pritchard, 2016). Seeing the potential of this exemplar as a resource contributed to the district design teams' schema shifts toward the importance of grounding a system of professional growth in a common vision of instruction, with the aim of instructional improvement. As illustrated in the three case districts, this key schema shift became an energizing resource leading to other district-enacted schema shifts.

The study's findings illustrate the complexity of systems improvement. Anderson and Kumari's (2009) exploration of what it means for schools to engage in the practice of continuously improving led them to the conclusion that the field's current understanding of "continuous improvement" in schools remains empirically and conceptually vague. Continuous improvement, they suggest, is not just about getting better at one thing, to which Bryk (2009) would likely add, nor is it about a rapid or once-and-done solution. There is a tendency to be overly ambitious. The value of focusing on putting a resourcing cycle in place was that it allowed sites to refine the process and resource effectively, while not letting the end goal of improving professional growth get lost in the process.

Implications

The resourcing theory of action explored in this study is useful for understanding and mediating large-scale organizational change processes. When operationalized as an organizational resourcing model, it can be used to further understand and facilitate collective capacity building. Further, the cornerstone, high-leverage system components offer a common and readily accessible organizing framework for professional growth that is situated to local context and grounded in collaborative professionalism. Building district-wide capacity for professional growth is a major undertaking for any district, but this study's findings suggest that, regardless of context, districts can successfully utilize existing resources, both internal and external, to create conditions conducive to learning. They can do this through the process of operationalizing a resourcing theory of action that drives a cycle of continuous improvement. The findings also demonstrate that external partners, such as university intermediaries, or even other districts using this model, could serve as a resource to support cross-district, cross-role team capacity building.

Many change initiatives fail as sustainability is viewed, and even typically designed, as dependency on an external resource or is compromised due to a lack of complementarity,

which can inhibit the development of ownership, collective responsibility, and commitment of internal resources. In an organizational resourcing model, the availability of resources does not have to be a constraining factor in change initiatives. Each of the three case districts that applied the ERC's theory of action came to the similar realization that identifying existing latent resources and putting them into use in new ways was a viable strategy for resourcing their systems of professional growth. Collectively, the existing latent resources were repurposed to facilitate districts' capacity to implement a professional growth system.

The role of teams, representing different tiers of the organization, and capacity-building strategies that promote team member learning surface as critical elements to sustaining implementation efforts. Higgins *et al.* (2012) posit that teams can be used to implement organizational change and are a critical factor in sustaining organizational change, as large-scale reform often requires changes at all organizational levels. However, little is known about how organizations can and do use teams as resources to facilitate organizational change processes. Despite calls for research on teams as active agents in leading organizational change, organizational research tends to focus on how interventions or external entities can improve team processes or functioning to better position them to change. Similarly, little is known about the role external partners, as well as state and federal policy makers, either currently do or might potentially play, in helping districts to explicitly attend to building their capacity for the implementation of district-wide professional growth systems.

References

- Anderson, S. and Kumari, R. (2009), "Continuous improvement in schools: understanding the practice", *International Journal of Educational Development*, Vol. 29 No. 3, pp. 281-292.
- Berkowicz, J. and Myers, A. (2014/2015), "Coaching as professional development: a powerful change accelerator", Education Week: Leadership 360 blog, available at: https://blogs.edweek.org/edweek/leadership_360/2015/07/coaching_as_professional_development_a_powerful_change_accelerator.html (accessed July 24, 2018).
- Bryk, A. (2009), "Support a science of performance improvement", *Phi Delta Kappan*, Vol. 90 No. 8, pp. 597-600.
- California Department of Education (2015–2016), "DataQuest", available at: <http://dq.cde.ca.gov/dataquest/> (accessed July 9, 2018).
- Clark, D. and Hollingsworth, H. (2002), "Elaborating a model of teacher professional growth", *Teaching and Teacher Education*, Vol. 18 No. 8, pp. 947-967.
- Cobb, P., Jackson, K., Henrick, E. and Smith, T.S., the MIST team (2018), *Systems for Instructional Improvement: Creating Coherence from the Classroom to the District Office*, Harvard Publishing, Cambridge, MA.
- Coburn, C.E., Penuel, W.R. and Geil, K. (2013), *Research-Practice Partnerships at the District Level: A New Strategy for Leveraging Research for Educational Improvement*, William T. Grant Foundation, New York, NY, available at: <http://wtgrantfoundation.org/library/uploads/2015/10/Research-Practice-Partnerships-at-the-District-Level.pdf> (accessed July 9, 2018).
- Curtis, R. (2013), *Finding a New Way: Leveraging Teacher Leadership to Meet Unprecedented Demands*, Aspen Institute, Washington, DC, available at: www.aspeninstitute.org/publications/finding-new-way-leveraging-teacher-leadership-meet-unprecedented-demands/ (accessed July 9, 2018).
- Darling-Hammond, L., Hyler, M.E. and Gardner, M. (2017), *Effective Teacher Professional Development*, Learning Policy Institute, Palo Alto, CA, available at: https://learningpolicyinstitute.org/sites/default/files/product-files/Effective_Teacher_Professional_Development_REPORT.pdf (accessed July 9, 2018).
- Darling-Hammond, L., Jaquith, A. and Hamilton, M. (2012), *Creating a Comprehensive System for Evaluating and Supporting Effective Teaching*, Stanford Center for Opportunity Policy in Education, Stanford, CA, available at: <https://edpolicy.stanford.edu/sites/default/files/publications/creating-comprehensive-system-evaluating-and-supporting-effective-teaching.pdf> (accessed July 14, 2018).

- Duke, D. (1990), "Developing teacher evaluation systems that promote professional growth", *Journal of Personnel Evaluation in Education*, Vol. 4 No. 2, pp. 131-144.
- Dunsmore, K. and Nelson, C. (2014), "Building capacity for sustained change: characteristics of common core implementation models that actually work", *Michigan Reading Journal*, Vol. 47 No. 1, pp. 14-25.
- Feldman, M.S. (2004), "Resources in emerging structures and processes of change", *Organization Science*, Vol. 15 No. 3, pp. 295-309.
- Fogo, B. (2011), "Making and measuring the California history standards", *Phi Delta Kappan*, Vol. 92 No. 8, pp. 62-67.
- Fullan, M. (2011), *Choosing the Wrong Drivers for Whole System Reform*, Center for Strategic Education, Victoria, AU, available at: <http://ccee-ca.org/documents/CCEE%20Local%20Control%20and%20Continuous%20Improvement%20Workshop%20Handout.pdf> (accessed July 14, 2018).
- Gronn, P. (2002), "Distributed leadership", in Leithwood, K. and Hallinger, P. (Eds), *Second International Handbook of Educational Leadership and Administration*, Springer, Dordrecht, pp. 653-696.
- Grossman, P., Compton, C., Igra, D., Ronfeldt, M., Shahan, E. and Williamson, P. (2009), "Teaching practice: a cross-professional perspective", *Teachers College Record*, Vol. 111 No. 9, pp. 2055-2100.
- Hargreaves, A. and Fullan, M. (2012), *Professional Capital: Transforming Teaching in Every School*, Teachers College Press, New York, NY.
- Hargreaves, A. and O'Conner, M.T. (2018), *Collaborative Professionalism: When Teaching Together Means Learning for All*, Corwin, Thousand Oaks, CA.
- Harris, A. (2010), "Leading system transformation", *School Leadership & Management*, Vol. 30 No. 3, pp. 197-207.
- Higgins, M.C., Weiner, J. and Young, L. (2012), "Implementation teams: a new lever for organizational change", *Journal of Organizational Behavior*, Vol. 33 No. 3, pp. 366-388.
- Hunzicker, J. (2013), "Attitude has a lot to do with it: dispositions of emerging teacher leadership", *Teacher Development*, Vol. 17 No. 4, pp. 538-561.
- Jackson, C.K. and Bruegmann, E. (2009), "Teaching students and teaching each other: the importance of peer learning for teachers", *American Economic Journal: Applied Economics*, Vol. 1 No. 4, pp. 85-108.
- Jaquith, A. (2009), *The Creation and Use of Instructional Resources: The Puzzle of Professional Development*, ProQuest LLC, Ann Arbor, MI.
- Jaquith, A. (2013), "Instructional capacity: how to build it right", *Educational Leadership*, Vol. 71 No. 2, pp. 56-61.
- Jaquith, A. (2017), *How to Create the Conditions for Learning: Continuous Improvement in Classrooms, Schools, and Districts*, Harvard Education Press, Cambridge, MA.
- Johnson, W., Lustick, D. and Kim, M. (2011), "Teacher professional learning as the growth of social capital", *Current Issues in Education*, Vol. 14 No. 3, pp. 1-16, available at: <https://cie.asu.edu/ojs/index.php/cieatasu/article/view/781>
- McDonald, M., Kazemi, E. and Kavanaugh, S. (2013), "Core practices of teacher education: a call for a common language and collective activity", *Journal of Teacher Education*, Vol. 64 No. 5, pp. 378-386.
- Massell, D. (2000), *The District Role in Building Capacity: Four Strategies*, University of Pennsylvania Center for Policy Research in Education, Philadelphia, PA, available at: www.cpre.org/sites/default/files/policybrief/873_rb32.pdf (accessed July 9, 2018).
- Miles, M.B. and Huberman, A.M. (1994), *Qualitative Data Analysis: An Expanded Sourcebook*, Sage, Thousand Oaks, CA.
- O'Hara, S. and Pritchard, P. (2016), "Framing teaching for common core literacy standards: SOAR teaching frames for literacy", *Psychology Research*, Vol. 6 No. 2, pp. 92-101.

-
- O'Hara, S., Pritchard, R. and Zwiers, J. (2016), "Academic language and literacy in every subject (ALLIES): a capacity building approach to supporting teachers in grades 4-8", in Proctor, C.P., Boardman, A. and Hiebert, E. (Eds), *Teaching Emergent Bilingual Students: Flexible Approaches in an Era of New Standards*, The Guilford Press, New York, NY, pp. 197-214.
- Opfer, V.D. and Pedder, D. (2011), "Conceptualizing teacher professional learning", *Review of Educational Research*, Vol. 81 No. 3, pp. 376-407.
- Spillane, J.P. and Thompson, C.L. (1997), "Reconstructing conceptions of local capacity: the local education agency's capacity for ambitious instructional reform", *Educational Evaluation and Policy Analysis*, Vol. 19 No. 2, pp. 185-203.
- Thompson, J., Windschitl, M. and Braaten, M. (2013), "Developing a theory of ambitious early-career teacher practice", *American Educational Research Journal*, Vol. 50 No. 3, pp. 574-615.
- Togneri, W. and Anderson, S.E. (2003), *Beyond Islands of Excellence: What Districts Can Do to Improve Instruction and Achievement in All Schools*, Learning First Alliance, Alexandria, VA, available at: <https://learningfirst.org/sites/learningfirst/files/assets/biefullreport.pdf> (accessed July 18, 2018).
- Wang, F. and Hannafin, M.J. (2005), "Design-based research and technology-enhanced learning environments", *Educational Technology Research and Development*, Vol. 53 No. 4, pp. 5-23.
- Yin, R. (1994), *Case Study Research: Design and Methods*, 2nd ed., Sage Publishing, Thousand Oaks, CA.

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