

Building Instructional Capacity

A Research Brief

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ABSTRACT

*The ideas in this brief were initially developed in *The Creation and Use of Instructional Resources: The Puzzle of Professional Development* (2009). This research brief presents a conceptual framework to illuminate the conditions that enable professional development resources to get used by teachers and schools. A theory of instructional capacity building is proposed that extends Martha Feldman's (2004) work on resourcing by specifying what instructional resources are and by situating resource use in a specific context. Data is drawn from a comparative, embedded case study of two middle schools (Jaquith, 2009) and from a state-level case study of teacher professional learning (Jaquith, Mindich, Wei & Darling-Hammond, 2010).*

The need for instructional capacity

Having the capacity within classrooms, schools and districts to enable, support and sustain high quality instruction is a critical condition for educational systems that have made mastery of a high-demand curriculum aligned to the Common Core State Standards a goal for all students. The need for instructional capacity—having the resources to support teaching in a manner in which students learn at a high level—is widely recognized by policymakers, reformers and educators. Yet, few descriptions and definitions exist of what instructional capacity is—and where they do exist, descriptions remain too general and unspecified to be of much use to local decision-makers. Furthermore, little information exists about the processes and practices through which instructional capacity gets developed in schools and districts. This research brief provides a definition of instructional capacity and offers a conceptual framework for thinking about how instructional capacity can get built and become self-generating in educational institutions and systems.

Instructional capacity: What is it?

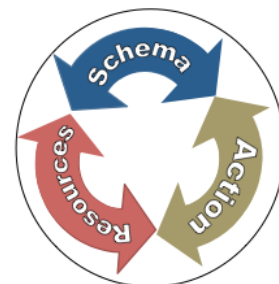
Broadly conceived, instructional capacity is the collection of *resources-for-teaching* needed to provide high quality instruction to groups of students in a specific context. Four types of instructional resources are needed in order for a school or district to provide high quality instruction to all students:

- 1) **Instructional knowledge** (including knowledge of content, pedagogy, and students);
- 2) **Instructional materials** (e.g. curriculum, instructional tools, textbooks, teaching materials, assessments—and know-how to use these materials);
- 3) **Instructional relationships** that are characterized by trust, mutual respect, a recognition of instructional expertise and an openness to interpersonal learning;
- 4) **Organizational structures** that support the identification, development and use of instructional resources (e.g. common learning time for subject and/or grade-level teachers; formal instructional leadership roles and organizational mechanisms that foster teacher collaboration, learning from peers and communication patterns that develop a shared understanding of teaching practices that are linked to student learning).

These four types of instructional resources are multi-faceted and interdependent.

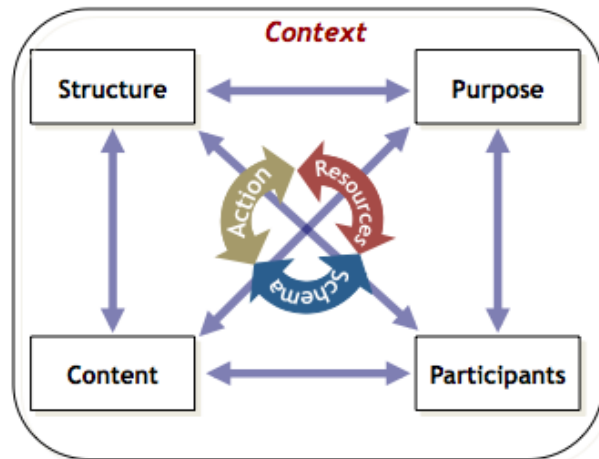
How to create instructional capacity

Sometimes instructional resources exist as latent resources within a school or district. For example, the depth of teachers' instructional knowledge may be unknown to colleagues or administrators may be unaware of strong instructional relationships that exist between teachers.



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Creating instructional capacity, however, is premised on the assumption that instructional resources reside both within and outside of an organization and that instructional resources are generated through their use, which necessitates being able to identify and use these resources. Building on Martha Feldman's (2004) theory of how organizational resources are created in practice, I propose a cycle of instructional resource use, in which the relationships among *instructional resources*, *actions* (e.g. what we do with the instructional resources) and *schema* (e.g. what we identify as *instructional resources* and how we conceive of their use) is bi-directional and mutually influencing. The cycle of resource use is situated in a context that focuses attention on four inter-related context dimensions: the purpose (*why*), the content (*what*), the structure (*how*) and the participants (*who*). Multiple contexts exist in schools in which instructional resources are made available and, often, are put to use. Embedding the cyclical process of



using instructional resources in a context, in which a set of interactive context dimensions are specified, offers a framework for thinking about how the socio-cultural and organizational dimensions influence how instructional resources get identified, used and created, as well as how particular context dimensions may influence the use of instructional resources and their transfer to other settings. This conceptual lens is the *Instructional Capacity Building Framework*.¹

Key Ideas:

The central ideas in the *Instructional Capacity Building Framework* are: 1) instructional resources (capacity) can be thought about in 4 broad categories which are interdependent; 2) instructional resources reside both within and outside of an organization; 3) how existing instructional resources are identified and put to use within a specific setting effects the extent to which additional instructional resources get created and used over time; 4) instructional resources are not a finite supply that get used up but rather they should be thought of as generative elements; and 5) when the use of these instructional resources occurs in a manner that pays attention to the key context dimensions, resource creation occurs. Instructional capacity gets created through the dynamic use of instructional resources where the user actively fits the instructional resource to the context.

¹ Appendices A and B provide specific examples of how instructional capacity was built by a state and a school, respectively.

Appendix A:

Examples from the field: How One State Built Instructional Capacity

The Regional Professional Development Centers (RPDC) in the state of Missouri offer one example of how a state built instructional capacity to support the improvement of teaching and learning. The RPDCs were established through legislation written by state policymakers who believed that the way to make educational improvements in Missouri was by investing in educators' opportunities to learn (Jaquith et al., 2010). These legislators authored a major education reform bill, The Excellence in Education Act of 1985, that increased state funds toward education and outlined policies for "teacher and administrator preparation and evaluation programs; career ladder and minimum salary plans; incentive programs for school improvement and changes to the state's finance formula to accommodate the anticipated change" (Bliss & Honeyman, 1986 p. 481). Additional legislation followed, in particular The Outstanding Schools Act of 1993, which tied a portion of the educational dollars schools received to investments in professional development for certified staff. Through these policies and allocation of funds, Missouri invested in a statewide regional network of professional learning through the establishment of Regional Professional Development Centers (RPDC). Perhaps most importantly, this legislation created mechanisms—in the form the RPDCs and Professional Development Committees (PDC)—that functioned to connect state policy to local contexts. These mechanisms served to tie the legislators' policy *schema* (e.g. improve education by investing in educators' professional learning), *actions* (e.g. author and pass reform-minded legislation) and *resources* (e.g. increase funding) during this period of time to the particular and varied contexts within the Missouri public schools.

These mechanisms were moored to the local contexts. The RPDCs were strategically positioned across the state within a two-hour drive of every school because the vision was to make learning opportunities accessible to all Missouri educators. In addition, the RPDCs were situated on state university campuses, which perform the licensing function for teachers and principals, and the universities were made the fiscal agents for the RPDCs tying the RPDCs to the state system of higher education. While the RPDCs were connected to regions, the Professional Development Committees were established at each public school. The purpose of the PDCs was to determine how the school would spend its professional development dollars. In order to receive funding, schools were required to spend 1% of funding on professional learning. In this way, PDCs were provided with money to invest in professional learning and given the authority to do so. By design, the PDCs were comprised of teachers who were the sole decision-makers for spending these monies earmarked for their professional growth. In practice, the RPDCs and the PDCs became important and strategic mechanisms linking state policy initiatives to the specific and particular needs of local actors. In this way,

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Missouri began to develop a statewide instructional capacity building infrastructure to support professional learning across the state.²

By creating mechanisms to tie the enactment of policies to the particular needs of local contexts, a plethora of instructional resources of the four types outlined in the Instructional Capacity Building Framework were generated across the state. For instance, valuable *instructional relationships* were forged between university educators, professional development providers and practitioners, as well as between RPDC professional development providers and state level officials and policymakers. As the presence of the RPDCs grew within the state, a vast statewide network of educational leaders in a variety of roles and locations was generated. *Organizational structures* to support professional learning at the local and regional levels were also created in the form of the 11 individual RPDCs and the cadre of regional professional development providers they housed. Another example of the organizational structures that formed within districts and schools statewide was the formal leadership bodies that were created in the form of the PDCs. In addition, a wide variety of instructional resources in the form of *instructional materials*, programs and *knowledge* were created as the RPDCs and PDCs were put into use. Interdependency formed between each RPDC and the regional schools it served. Center directors saw their role as providing professional learning services to meet the particular needs of their regional schools and districts. Consequently, RPDCs that serve primarily rural areas worked in partnership with their university hosts to experiment with distance learning programs to better serve the needs of students in the rural areas. An RPDC serving a primarily urban area developed a “Coach’s Academy” to support the professional development of the growing number of instructional coaches that were cropping up in the urban school districts, but who had no formal training in being a “coach”.

The Missouri example illustrates the idea that schema, actions and resources are mutually influencing and gives some concrete examples at the state level of how instructional capacity can get built across a state. The Missouri case also demonstrates how additional instructional resources get created through their use, especially when the use of the resources attends to the particular needs of actors in the context in which they work. Furthermore, we see that when state policies create mechanisms to connect and fit instructional resources to the actors’ particular needs and attend to the dimensions of specific contexts, the instructional resources are more likely to get picked up and used by local actors. The case shows how through the use of these resources other instructional resources that are needed get created.

² For more information about the form and function of the RPDCs, see “Building a Statewide Infrastructure to Support Professional Learning: A Coherent System Within Reach” p. 45-72. In Jaquith, A., Mindich, D., Wei, R.C., Darling-Hammond, L. (2010) *Teacher Professional Learning in the United States: Case Studies of State Policies and Strategies*.

Appendix B:

One School's Approach to Building Instructional Capacity to Improve Teaching and Learning: The Story of Cedar Bridge³

Cedar Bridge Middle School is located in a low-income neighborhood in an urban district. In 2007-08 it was labeled a program improvement 4 school. According to Principal Seymore Everett, although “test scores are rising, [they are] not rising to the level of where No Child Left Behind [expects us] to be.” As is common in urban schools, Cedar Bridge contends with teacher turnover rates that are typical in urban schools and must hire its share of inexperienced teachers. The school also faces the combined challenges of achieving adequately yearly progress on state tests and educating a student body that is ethnically diverse (42% African American, 18% Latino, 34% Asian, 2% white), a fifth of whom are English Language Learners and three quarters of whom qualify for free and reduced lunch. Within this context and under Principal Seymore Everett’s leadership, teachers and administrators at Cedar Bridge embraced the school’s “ultimate goal...of reducing the achievement gap [that existed] between African American and Latino kids and all other” students at the school. Cedar Bridge staff believed it was their responsibility to create an environment in which each student could learn, and the administration saw a close connection between designing a meaningful learning environment for teachers and creating a supportive learning environment for students. Seymore expressed his desire to create a school environment that nurtured the development of students and faculty alike:

When I got to my first year in administration...I remember everything was about test, test, test: how is this going to help on the test? ...You know what, ...the numbers on tests will come if you have...created an environment that supports the entire child, supports all the adults at school...

To create this supportive environment, Seymore Everett distributed leadership responsibilities among teachers and administrators and put a variety of supportive organizational structures in place. For example, he established a School Leadership Team, comprised of department chairs and administrators, to serve as an advisory group on school-wide instructional matters. The School Leadership Team met regularly and worked collaboratively to design professional development experiences for teachers. To oversee the design, development and implementation of professional development at Cedar Bridge, Seymore created the position of Instructional Coach, whose chief responsibilities were to plan school professional learning experiences and support teachers’ instruction. Seymore strategically hired a former humanities teacher from Cedar Bridge, who was viewed by colleagues as a literacy expert and a highly effective teacher, to serve in this role. The role of Instructional Coach linked administrative initiatives and concerns with teachers’ needs. The coach participated in teachers’ subject-specific, grade-level team

³ Names of schools, people and programs are pseudonyms.

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meetings and was a member of the School Leadership Team. In addition, administrators and the Instructional Coach conducted regular classroom visits, sometime together, followed by brief conversations with the visited teacher about the instruction they observed.

Both the Instructional Coach and the School Leadership Team emerged as key organizational resources at Cedar Bridge connecting the administrative instructional concerns and vision with teachers' instructional beliefs and practices. Importantly, the way these organizational structures were used at Cedar Bridge prevented the isolation that typically occurs among sub-groups within schools— isolation that Andy Hargreaves and Robert Macmillan (1995) caution can lead to a “balkanized culture ... [where] what teachers come to know, think, and believe— varies considerably between those sub-groups” (p. 142).

Because Seymore and the administrators took actions to become knowledgeable about how instruction was delivered at Cedar Bridge and the extent to which students were learning as a result, the principal was able to articulate a legitimate and clear need for teacher learning at the school:

We still need to figure out how to provide meaningful instruction to students and to provide formative assessments so that we can figure out if students are learning what we're teaching.

This identified need for teacher learning led to the development of a new structure for professional development at Cedar Bridge.

Because Seymore wanted teachers to work together to improve the quality of their instructional practice, he and the School Leadership Team developed a plan to support teachers to work together differently than they had before. This new plan engaged teachers in examining student work products and looking for evidence of learning, rather than spending time planning lessons or units. Seymore described teachers' existing schema for collaborative work as “centered more around what we are doing as teachers.” He described the new schema that he wanted teachers to develop in these terms: A focus on “what are kids learning and [making] evaluating student work” integral to their instruction. Therefore, Seymore and his leadership team decided that looking at student work should become the centerpiece of the new structure for professional learning. His schema for how teachers ought to work together influenced the actions Seymore took, and, consequently, the resulting organizational structure. The new structure for professional learning grouped teachers according to subject and grade level taught. These groups of teachers were brought together in the library to concurrently participate in a cycle of inquiry that linked instructional practice to student learning. The School Leadership Team, according to Seymore, understood that teachers needed to be led and supported through a process of working together differently and for a different purpose. The adult learning needed to be facilitated.

We knew that we couldn't just tell the teams to meet in their groups and go on and tell them what ...to do... because you need to be trained, you need to learn, you need to experience it.

In the new professional development structure, teacher groups were asked to: 1) identify a common instructional goal, 2) co-plan a lesson to teach that goal, 3) teach the lesson, 4) examine the resulting student work from that lesson (e.g. a formative assessment), 5) design subsequent instruction based on analysis of the student work and 6) examine evidence of student learning that resulted from the re-designed instruction. This cycle usually occurred across a week with teacher groups convening in the library on Monday, Tuesday and Thursday afternoons.

During these meetings, many instructional resources (e.g. *knowledge about subject area content, pedagogy and students* and *instructional materials and tools*) were shared among teachers and administrators as they examined student work products together, asked questions about evidence of student learning, reflected on instructional practices and made suggestions about instructional moves and strategies. In addition, many more instructional resources were created through individual's participation in these meetings. For example, teachers identified important and common learning goals for students; they designed "common" lessons and developed instructional materials to use to teach those lessons. The Instructional Coach and administrators created routines for looking at student work and reflecting on instruction as well as tools to aid teachers in these new practices. Administrators began to spend their time differently—discussing ways to support teachers in figuring out how "to teach differently based on the analysis of the results on their formative assessments." The quality and state of instruction at Cedar Bridge became a common topic of conversation among administrators, replacing the more traditional administrative talk about building operations and discipline procedures, and teachers developed the relational trust necessary to talk with each other about their instructional practice. As this structure and approach to professional development was enacted, administrators' roles in supporting instruction also shifted. According to the Instructional Coach, the principal played a different role in leading teachers' learning: "Seymore [didn't] usually facilitate the [professional development] activity, but he did this time. This year he seems to be taking more of a lead with improving instruction. At School Leadership Meetings, he's focused on improving instruction." These actions represent significant changes in the production and use of instructional resources. The Cedar Bridge story also illustrates the mutually influencing nature of action, schema, and resources.

Through this window into Cedar Bridge, we see how a leader's careful analysis of student learning and instruction, which are key dimensions of a school context, led to the creation of a new *organizational resource* (e.g. the cyclical structure of teacher learning that Cedar Bridge administrators facilitated), which was shaped by leaders' schema about the purpose of professional learning. We also see how the resources of *instructional knowledge* and *instructional materials* were created through actors' participation in the new structure for professional learning. In addition, as these particular meetings got underway, their form and structure evolved. In the process of using this meeting structure at Cedar Bridge, instructional capacity was built: individuals took on new roles related to instructional improvement; instructional knowledge and materials were generated, shared and used; organizational structures and reflective tools emerged; practices for analyzing evidence of learning were created and honed; and relationships anchored in conversation about

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instruction and the quality of student learning developed. The instructional capacity building framework provides a lens through which to examine the Cedar Bridge story⁴, and it helps illuminate decisions and moves that were made by the principal, the instructional coach, the teachers, and the administrative team to build instructional capacity.

This snapshot of Cedar Bridge also depicts the way the cycle of resource use sits in dynamic relationship to the context in which resources are getting used, and the way in which using any one instructional resource often requires the generation and/or use of the other three types of instructional resources. For instance, the structure for professional learning required teachers to think about the work students generated as a tool for their own learning about their instructional practice as they analyzed the student work. This practice required a shift in teachers' schema and it necessitated that teachers develop sufficient relational trust and respect for each other to examine student work together carefully, to ask meaningful and probing questions of one another, and to make themselves vulnerable in order to learn. By applying the instructional capacity building framework to the case of Cedar Bridge, we see the interdependence among the four types of instructional resources, and we see how critical it is to put instructional resources into use in order to build instructional capacity.

⁴ See Jaquith, A. (2009) for additional information about how instructional capacity was built in grade-level teams at Cedar Bridge and by individual teachers through the use of instructional resources.

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