



Defining a Comprehensive Aligned Instructional System

*To Ensure Powerful Teaching and Learning
for Every Student in Every Classroom*

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with
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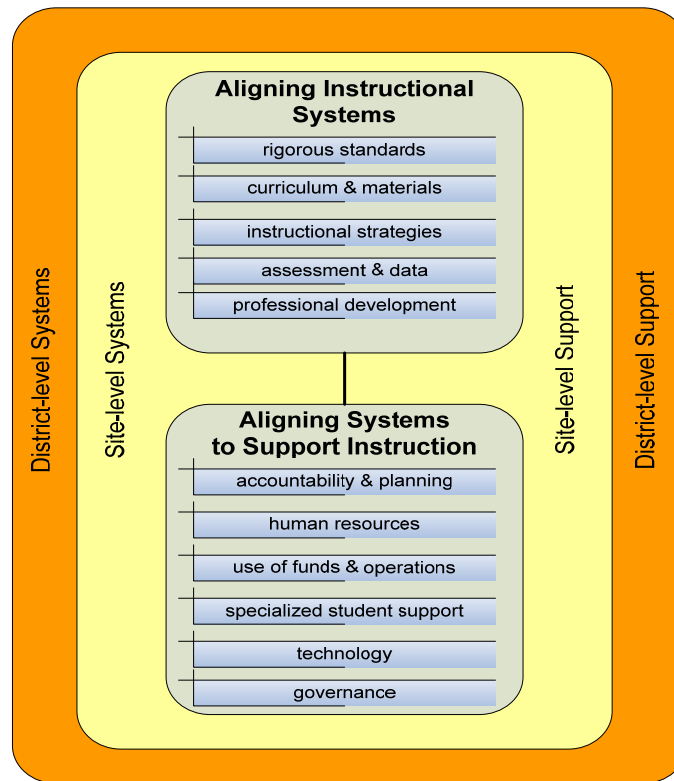
Overview

The Stupski Foundation has focused on the implementation of a comprehensive aligned instructional system as a critical lever for district reform. In the challenging environment of urban education, reforms focusing on only one system component (i.e., assessment, curriculum materials, professional development, resource utilization, regulatory context, or accountability measures) have little likelihood of sustained impact. As isolated initiatives, they are easily overwhelmed by the dysfunction of the larger system.

Similarly, reforms focused at either the district or classroom level seldom achieve broad success because there are few mechanisms to diffuse the reform throughout the system. The development of a comprehensive aligned instructional system, therefore, is essential to articulate a reform vertically from policy to classroom practice and horizontally across the many sub-systems of the district. As such, it represents systems change far more than it does instructional change.

This paper seeks to delineate the critical questions that are necessary to define such a comprehensive system. It addresses aligning the components of the instructional system as well as the alignment of those aspects of larger district structures and processes that impact the success of the instructional program. The graphic below depicts both aspects that together form a comprehensive aligned instructional system (CAIS).

A Comprehensive Aligned Instructional System



The Purpose and Boundaries of Alignment

CAIS Purpose: Adequacy of Resources to Ensure Powerful Teaching and Learning

The primary purpose of systems alignment is to ensure that teachers have the necessary supports and empowerment to enable them to make effective instructional decisions for the full range of students they serve. This means that they must:

1. have deep content knowledge, including what aspects of that content are critical and what rigorous understanding of it looks like;
2. know the power instructional strategies in their content area, including the strongest instructional sequence;
3. know the power instructional strategies to support English Learner, Special Education and struggling students;
4. have access to high quality materials and resources;
5. be provided well-developed diagnostic and benchmark assessments and quick, quality reports of results; and
6. be provided intervention supports for students significantly below grade level.

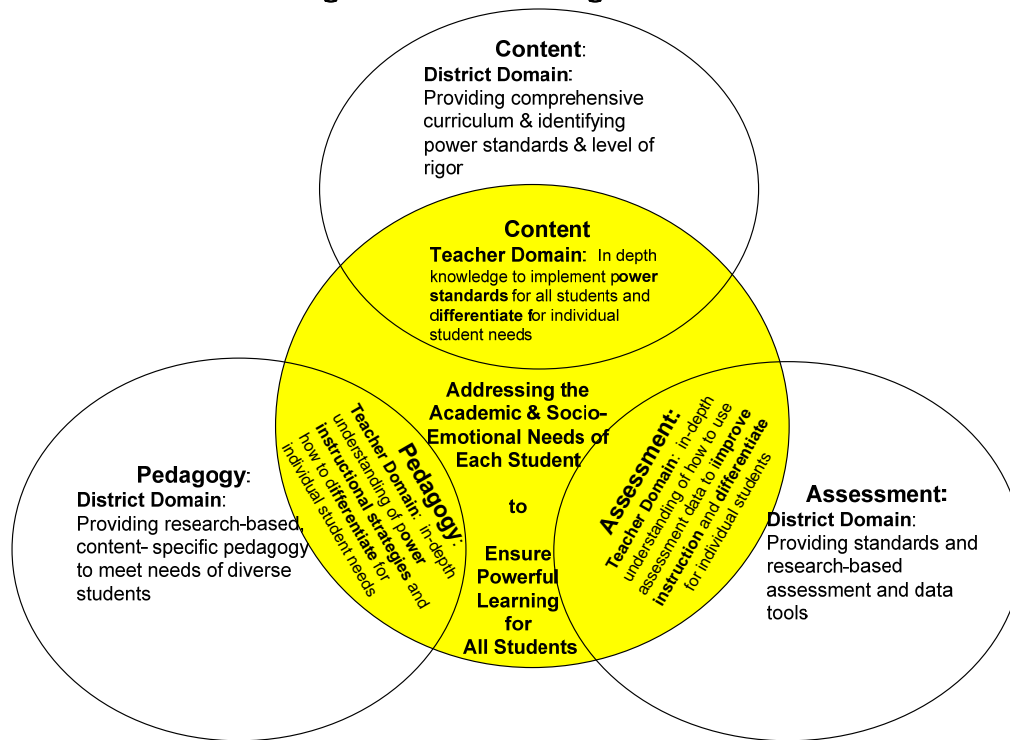
With these resources, they can then focus on refining lessons, differentiating their instruction, and meeting the academic and socio-emotional needs of their students. If they are left to create all the support structures themselves, very little capacity remains for high-level professional practice and effective decision making in the arena where only they can

provide the answers – how best to help given students learn a given content and develop the intellectual and personal attributes that will allow and enable powerful life options (1).

The domains of district and teacher responsibility are depicted in the diagram below. The area within the central circle represents the area of professional practice and autonomy for teachers and the arena where student learning actually occurs. It is the responsibility of the district to ensure the alignment of structures to provide the external resources, those areas outside of the inner circle, to facilitate this learning. The responsibility of the principal is to bridge the inner teacher and the outer district circles, aligning district and site support structures and differentiating for the specific teachers and context of that site. And finally, it is the responsibility of both the district and the principal to protect and promote the ability of teachers to apply these resources to individual student needs.

In contrast to what is often purported, when districts have clearly aligned systems that provide consistency across schools and classrooms, teachers are provided a common frame of reference and common data to enable professional dialog. It is through this collaboration that teachers are able to develop a high level of professional practice and instructional problem-solving tailored to the needs of their students.

Ensuring Powerful Learning for All Students



Providing District Support for Teacher Professionalism

CAIS Purpose: Equity of Resources to Ensure Powerful Teaching and Learning for Every Student in Every Classroom

The second major purpose of a CAIS is to ensure that no students are denied access to a strong academic program simply because of the classroom or school in which they happen to enroll. To the degree that teachers are required to create their own curriculum and assessments, acquire pedagogical skills on their own, and provide their own instructional materials, students with new teachers or teachers with time or financial constraints are consigned to a second-class education.

Similarly, the district must ensure that students in schools with limited community advocacy or support, new administrators or high teacher turnover are not denied access to learning opportunities. Without systemic safeguards, more powerfully positioned communities and leaders can more readily ensure resources flow their way (1).

Boundaries and Autonomy within a CAIS

Given these two driving purposes for the creation of a CAIS, the task of each district is not only to delineate the roles and responsibilities for district leaders and classroom teachers, but also those for the central office and individual sites. As part of defining roles and responsibilities, it must also define the related autonomy and accountability.

The graphic above addresses common questions and the false polarization between alignment and teacher professionalism. At the same time, it raises questions about alignment and autonomy between the district and sites. Specifically, are the diameters of the circles of district roles constant or do they vary in relation to student or school performance level, subject and grade level, instructional research base, or district context?

While each district must address areas of centralized and delegated authority, the interplay of these areas can be summarized as follows. If schools are clearly high performing and adding a year or more of value for all students every year, and if the district has the infrastructure to ensure access and equity, then the responsibility for the execution of the instructional program can be delegated to the site level. This site responsibility and the related autonomy may vary.

Autonomy may be greater to the degree a **district** has:

- A clearly articulated vision of student success applied to all students and widely held by a range of stakeholders,
- A clearly articulated and widely enacted set of guiding principles that can support autonomy with rigor and equity,
- Alignment of all aspects of the system to support teaching and learning,
- A high quality data infrastructure that readily reports a range of outcome and implementation data in support of rigor and equity,
- A state accountability system with rigorous mandated standards and tests.

Autonomy may be greater to the degree a **site** can demonstrate:

- Consistent evidence of value add for all students,
- A strong professional culture of collaborative innovation.

Autonomy may be greater to the degree a **teacher**:

- Teaches subject matter where clear best-practice research is lacking,
- Teaches students for whom clear best-practice research is lacking,
- Teaches older students who are not acquiring foundational skills,
- Has experience in the grade and subject,
- Can show consistent evidence of value add for all students.

Aligning the Instructional System

What is the Focus of Alignment?

When districts seek to align their instructional systems, it is first necessary to define the core, or focus, of this alignment. In education, the core mission is learning and the core practice is teaching. Therefore, teaching, or instruction, becomes the focus of alignment.

Instruction has two major components: content and pedagogy. However, the broad range of potential content and ways to transmit it can be distilled into **academic standards** (knowledge and skills) and **powerful instructional strategies** including what are sometimes called models of teaching. While this is the skeleton around which supports such as curricula, instructional materials, assessments and professional development are built, this universe is still too broad to provide the clarity for tight alignment. The questions most districts struggle with include:

- In many cases, the compilation of standards at the district or state level was a political process. Therefore, the resulting documents often include far more content than can be taught and learned in a school year. The question, then, is which are the

“**power standards**,” those critical academic standards that are necessary precursors to future learning and so merit investment of time and resources? On a related note, what are the **performance standards** for these power standards, i.e., the degree of rigor and depth of understanding expected for each?

- Of the universe of **instructional strategies, which have the most impact** across content areas, within a specific content area, for specific academic populations (English Learners, Special Education students with specific disabilities, etc.), and in relation to specific cultures. In other words, which are the most useful tools for teachers seeking to provide depth and differentiation in their instruction? Which are worth supporting through systems’ alignment?

What Is the Instructional System to Be Aligned?

To align an instructional system, it is necessary to align the structures that have been developed to support high quality instruction horizontally across the many district departments and vertically from the cabinet to the classroom. This entails bringing coherence to the planning and implementation of the curriculum, instructional materials, assessment, data and professional development. In each of these areas, districts face important questions (2, 3):

Curriculum and Materials

Curriculum and Instructional Materials are at the core of an aligned instructional system. Therefore it is critical that **the curriculum is aligned to the power academic standards, the tested standards for the state (if those are different), and the power instructional strategies**. It is the curriculum and materials that define the actual instructional work in the classroom and ensure a loose or tight coherence across sections of a given course and vertical alignment across grade levels. The curriculum may be highly detailed and prescriptive, maximizing likelihood of immediate results, coherence, and fidelity of implementation. Conversely, it could be broadly written to allow a high level of discretion in enactment which can increase ownership and sustainability.

Because of their visibility “on the ground,” the curriculum and affiliated instructional materials are frequently at the center of disputes regarding the definition of alignment. More specifically, **what is encompassed in the curriculum that is to be aligned?** Is the curriculum the academic standards; the standards plus sample lessons; standards, lessons and power instructional strategies; or all of these plus a mandated, adopted textbook? Conversely, can the curriculum be synonymous with the adopted textbook? Whether it is part of a “homegrown” or textbook-based curriculum, is a pacing guide an integral part of the curriculum or simply a recommended scope and sequence? Given the various approaches to defining a curriculum, how does a district determine whether a given textbook incorporates the power academic standards and instructional strategies? Are there some subjects, grade levels, or district contexts where tightly aligning a curriculum and an adoption makes sense and others where this is not an appropriate strategy? Even if a textbook forms the basis for a given curriculum, how does a district decide what supplements (either from the publisher or from other sources) are appropriate?

Instructional Strategies

The overarching question related to instructional strategies deals with **the degree to which the districts details how curriculum is taught** as well as what the content of that curriculum is. On a more detailed level, it addresses whether instructional strategies are seen as generic across grades and disciplines or more content-specific. It also encompasses the approaches a district uses to **differentiate the curriculum** for students

not performing at grade level, as well as those with special education or English acquisition needs or those who have already mastered grade-level standards. The district must decide the degree of differentiation to be supported: 1) within the core curriculum, 2) with targeted, additional intervention inside or outside of the regular classroom, or 3) with intense, comprehensive, instructional intervention outside of the core instructional program. Once the scope of support has been determined, questions arise about the actual curriculum and materials. Are different materials needed for different types of intervention? How closely should they align with those for the core? And, finally, at what point do the instructional needs of special populations differ so much from the mainstream that a separate teacher with specialized skills and materials is required?

Assessment and Data

Assessment and Data structures are critical in providing teachers, schools and districts the information they need to **1) improve teaching** and **2) provide differentiation and intervention for students**. Therefore, in an aligned system, the assessments must encompass the power standards and reflect the rigor of the performance standards. Data reporting must provide ways to link achievement to both the power academic standards and the power instructional strategies. Therefore, assessments and data reporting must be designed to provide teachers timely access to information on their students' strengths and weaknesses in mastering grade-level standards such that the links to appropriate next steps in instruction are clear.

While the need for alignment of content is clear in the abstract, it becomes less so in practice. There are multiple types of assessment: 1) teacher-developed, curriculum-embedded tests; 2) district-wide, curriculum-embedded, short-cycle assessments that allow teachers across classes and schools to collaborate on instructional improvement; 3) benchmark assessments that serve as early indicators of state testing results; high-stakes, summative state tests; and 4) diagnostic tests designed for specific placement and intervention decision making. In addition, districts are developing more global high school and college readiness assessments. How much alignment is necessary among all of these? How necessary is it that they reflect the same standards? If the state standards are not rigorous, should benchmark tests be aligned to them? How can the district ensure that teacher-developed assessments have the same level of rigor as district assessments? Is this important?

No matter the answers, because time and resources are finite, districts must address questions of sufficiency: what are the trade offs between time spent assessing and analyzing data vs. planning instruction and teaching? How much assessment is too much? What level of data reporting is good enough? Stated another way, what is the most critical information to assess and report, at what level, and with what degree of rigor?

Professional Development

In an aligned instructional system, the district must address issues of both **intentionality and sufficiency** in professional development. In terms of intentionality, does the professional development 1) **focus on the power standards and strategies**, as well as the ability of personnel to 2) **use the assessment and data systems** and 3) **apply the knowledge gained to instruction** so as to ensure access and rigor for all students?

Is there **vertical alignment** throughout the organization? Has the district been intentional in addressing which aspects of content, pedagogy and assessment/data analysis training are necessary for teachers, coaches, principals, central office personnel and the cabinet and board? Who needs what type or degree of instructional knowledge in order to support, monitor and plan for a cohesive system?

Is there intentional **horizontal coherence**? Is the professional development related to serving English Learners, special education students, advanced students and others aligned? Does this alignment ensure special needs are being met while maximizing students' participation in core instruction? Similarly, is there coherence between professional development focusing on pedagogy and that relating to the learning environment, e.g., cultural proficiency, student engagement, classroom management, conflict resolution? To extend this further, how has professional development been differentiated to meet specific needs (new teachers, struggling administrators, struggling teachers, etc.) while still maintaining focus and coherence? Has this been done with an eye to sustainability? Are new teachers effectively initiated into district programs while sustaining the vitality of the practice of those having completed professional development cycles? Finally, is the design of the professional development intentional, utilizing different formats (coaching, workshops, etc.) to achieve deep implementation? All of this leads then to the question of sufficiency: as with assessment and data, how much professional development is enough or too much? Has a cost-benefit analysis been conducted or prioritization taken place?

Beyond these obvious areas of vertical and horizontal alignment in relation to content, a district must also address issues of **purpose and clarity** in relation to two other questions. First, how does an aligned system facilitate **de-privatizing practice**? Second, how does an aligned system **ensure the transfer of best practice and research knowledge** to the classroom?

De-privatization is facilitated by the use of learning walks and common observation protocols, action research, peer observation, and teams of teachers looking at student work and curriculum-embedded assessment data. Teacher leadership and ownership are critical for these processes to be successful.

At the same time, the dissemination of research-based best practice is critical. It is no longer acceptable for students to be limited to the instructional knowledge possessed by their teacher or even the collective of teachers at their school. Likewise, the time lost to learning through trial-and-error instructional design cannot be justified, particularly for students who need to accelerate their achievement. The central tension in the development of an aligned professional development system, therefore, is reconciling increasing teacher professionalism through transmission of best practices and enhancing that same professionalism through de-privatization and collaboration.

An Example of Aligning the Instructional System

One district that has grappled with these questions—Bellevue, Washington—has developed an on-line Curriculum Web that serves as an anchor for their alignment. The Web includes adopted curriculum materials with local modifications in sequence as well as augmentations; teacher-generated scaffolds and accommodations for special student populations, including video-clips re-teaching difficult concepts; benchmark assessments with a link to the District Data Analyzer for on-line data reporting; and embedded professional development videos. The Curriculum Web has allowed the district to implement standards frequently more rigorous than the state's and provided curricular consistency across sites. At the same time it has fostered teacher innovation and collaboration. Bellevue has held itself accountable for providing all students the type of education usually only available to the elite and benchmarked itself against Advanced Placement (AP). They have moved from a district with very limited and selective AP enrollment to one where 82% of English Learners, 74% of Hispanic students, 65% of low-income students, 65% of African American students, and 48% of special education students take at least one AP course and exam – and at the same time reduced their four-year drop out rate from 18% to 9%.

Aligning District Systems to Support Instruction

The curriculum and the affiliated instructional materials are the core of the aligned instructional system. Unfortunately, **aligning the written curriculum, the text, the taught curriculum and the tested curriculum, K-12, is often confused with creating an aligned instructional system.** While this vertical and horizontal curriculum alignment is an important step and can jump-start improved student achievement, by itself this is unlikely to lead to sustained, scalable achievement gains. To increase the likelihood of systemic improvement, it is necessary to embed curriculum alignment within the context of the larger system, aligning all components of the system to create a Comprehensive Aligned Instructional System (4, 5).

Accountability and Planning

Accountability represents the bottom line of alignment. Ideally, the accountability of each individual throughout the system is aligned with accelerating the achievement of struggling students and improving achievement for all. A comprehensive accountability system monitors both whether the end product of alignment, **student achievement**, occurs, and whether **implementation**, the process of executing the aligned strategies, actually happens. The district establishes the focus, provides professional development and other supports, assesses and reports outcomes, and then the accountability system determines what happens, why and to whom.

A robust accountability system is not simply based on summative, state test data. Rather, it must answer more complex questions, e.g., did achievement or lack of achievement actually occur or were the results an artifact of faulty data collection issues? How well were the aligned support structures implemented? What was the quality of the support delivered? And, based on the answers to questions of both student outcome and implementation, what consequences apply? The more highly developed the accountability system, the more teachers and schools can be held accountable for results and allowed flexibility on processes. The more robust the analytics, the more clearly internal best practices can be identified and replicated. The more programs are evaluated, the more distracters can be eliminated and enhancers supported. And, finally, the more the quality of district services can be monitored, the greater the likelihood of a truly aligned instructional system.

Once again, however, there is a tension between accomplishing a structural form of accountability and achieving the sought-after deeper outcomes and alignment. How can a district shift the culture from bureaucratic, compliance-based accountability to ownership of results and commitment to continuous improvement? Similarly, how can an aligned instructional system engender a two-way accountability where the central office is held accountable for delivering high-quality supports that enable site accountability for achieving desired results?

Planning is the proactive side of accountability. Moreover, questions of systems alignment are basically questions of planning and resource allocation. Are fiscal, personnel and time resources maximized through focused planning and regular plan reviews or are expenditures the result of roll-overs from historical practices and or fire-fighting? Is resource use purposefully planned to build capacity and sustainability? Specifically:

- Are district and site-level instructional **plans multi-year, based on data and aligned to student needs?** Do site plans align to district plans so that there is focus and coherence to support and resource allocation?

- Are **safeguards built into the planning process** to ensure coherent and powerful resource utilization in schools with new leadership or historically poor performance?
- What planning mechanisms are provided for **K-12 coherence**? Do teachers and administrators have opportunities to align work across grades and, particularly, across levels?

Human Resources

In personnel-dependent enterprises, such as education, where the product is a service and where over 80% of the budget is for personnel, alignment processes that do not take into account personnel practices are incomplete. CAIS questions in personnel include:

- Are the **strongest teachers and principals serving the most challenged students**? Is the teacher contract aligned to achieving these goals? Are such sites fully staffed including special education staff, substitutes and mid-year vacancies?
- Is there **vertical alignment of personnel monitoring and support**? Are teachers supported and monitored both for quality implementation of content and pedagogy and for growth in their students' achievement? Are principals and each higher level of line and staff personnel held accountable for supporting and monitoring the instructional program and for their role in ensuring alignment?
- Is there **horizontal coherence in supervision and support**? Are expectations consistent across schools and district regions and are these tied to the instructional plan? Similarly are there consistent expectations and effective communication related to the instructional plan between the central Curriculum and Instruction office and the Area Offices or those who supervise sites?
- Have **contracts** been structured and **union relationships** developed that support the instructional vision of the district?

Use of Funds and Operations

No matter the alignment of a district's instructional system, if finance and operations are not in service to the instructional mission, the resources of time, money and space needed for successful implementation will be lacking.

- Are the expenditures of **general and categorical funds aligned to multi-year instructional plans** at both the site and district levels?
- Are resources **aligned to equity goals**? Are they distributed equitably with a focus on access and equitable outcomes or are they simply distributed equally regardless of need?
- Are all **programs, grants and special projects aligned to the instructional plan**? Are programs rejected or terminated if they are misaligned or pull other resources from higher priority efforts? Is there a process for monitoring all programs for alignment?
- Are **vendor-delivered services** for professional development and direct student service **aligned to the instructional program and goals** of the district? Are such programs initiated with a conscious focus on internal capacity building?
- Are **facilities** appropriate to the instructional mission and equitably and purposefully distributed?
- Is the **resource of time maximized through alignment to the instructional program**? Do pre-K, summer school, after school and other extended programs align? Does the use of the school day and calendar support the instructional focus?

Are transportation and food service schedules built around the instructional program? Is meeting time (faculty, grade level, collaboration, leadership team, department, cabinet, etc.) aligned to support instructional priorities? Is scheduling designed to maximize professional development time?

Specialized Student Supports

Specialized student supports are the intervention and support structures provided for students with special needs beyond instruction in the core classrooms.

- Has a clear path and **strategy** been articulated **to move students into the core program** – one accelerates achievement by providing more than a year of academic growth per year of instruction?
- Is there **equitable and purposeful distribution of special populations and programs** (special education and ELL as well as services such as disciplinary transfer, out-of-home placements, newcomer students) including data systems to track adequacy and effectiveness?
- Are **special advanced programs and opportunities (AP, arts, etc.) equitably and purposefully distributed?** Does the data system allow for tracking access to these programs?
- Is there a **vision for student services** (counseling, enrollment, discipline) that supports the district’s vision for teaching and learning?

Technology

Technology can be an important tool for increasing both adult and student performance if its use is tightly aligned to the instructional mission. Conversely, it can consume tremendous time and resources and detract from that mission if it is not.

- Are technology resources aligned to support instruction and **equitably and purposefully distributed?**
- Is technology **used to streamline operations** thereby freeing site administrators to focus on instructional leadership?
- Is technology **used to support collaboration** and sharing best practices?
- Is technology **used to address the needs of special student populations** through diagnostic assessments, instructional differentiation and assistive technology supports?
- Are technology considerations **part of the instructional decision-making process** while being in service to, rather than driving, instructional strategy?

Governance

In order to create a CAIS, district systems must be supported by a governance structure that both sees the district as an integrated system and prioritizes student achievement goals above competing interests.

- Does the board champion the district’s vision, **engage the community**, and effectively **communicate the district’s strategy** around powerful teaching and learning?
- Does the board **see the district as an integrated system** with each part playing a role in supporting or distracting from the instructional mission?

- Does the board treat all **resource decisions as instructional decisions** and weigh their impact on teaching and learning?
- Does the board **provide the superintendent and key leaders support and buffer them from interference** so that they can achieve the educational mission of the district?

An Example of Aligning Systems to Support Instruction

Faced with a \$42 million deficit, Illinois district U-46, outside of Chicago, decided to leverage the crisis to re-think its entire system. In order to gain community confidence, build internal accountability, and strategically cut the budget, the superintendent commissioned a series of outside audits throughout the system, including in finance, curriculum, English Learners, special education, and human resources. Armed with this data, she undertook a planning process that resulted in a District Improvement Plan (DIP). Re-adopted and tailored each year, the DIP laid the foundation for the development of a unifying Curriculum Roadmap to anchor the instructional program. In order to jump start the curriculum process, she put in place a Foundation-funded team with external curriculum and assessment leadership supported by internal teacher leaders. This one-year personnel “module” allowed her the time to restructure her cabinet and identify and support permanent internal leaders to take the Curriculum Roadmap to implementation. She strategically began rolling out the assessment and professional development components of the Roadmap with the most challenged schools, particularly those serving English Learners, thereby intensifying and centralizing support for the lowest performing students. Further support for low-performing groups was provided by moving the budget to align funding to need. As a result, between 2003 and 2006 English Learner performance improved dramatically, moving from 32% to 68% at advanced or proficient in reading and 44% to 75% in math along with a 41% improvement in schools making Adequate Yearly Progress (AYP) (6).

Conclusion

There is no single picture of a Comprehensive Aligned Instructional System or single process to create one. It is only through self-analysis that a district can determine where it has and lacks the capacity to provide access to rigorous learning for all students and how it can best focus its resources to that end. The journey to alignment, the looseness or tightness of the boundaries of that alignment, and the exact structure of the eventual system will be unique to each context. The purpose of this paper is to provide a framework and guiding questions to support the district in the process of building its own CAIS.

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The mission of the Stupski Foundation is to provide powerful life options for students of color and poverty through supporting urban district reform.

Endnotes

1. For a discussion of research findings related to teacher support of a strong district role in providing coherence, resources, and equity see McLaughlin, M and Talbert, J (September 2003). *Reforming Districts: How Districts Support School Reform*. Seattle, WA: Center for the Study of Teaching and Policy, University of Washington,.
2. A comprehensive review of research related to the relationship between aligned instructional systems and student achievement can be found in Appalachia Educational Laboratory (AEL) (December 2005). *Research Brief: Aligned Curriculum and Student Achievement*. Charleston, WVA: EDVANTIA.
3. Research from the Consortium on Chicago Schools Research shows the impact at the school level of instructional program coherence. Newmann, F., Smith, B., Allenswork, E., Bryk, A. (January 2001). *School Instructional Program Coherence: Benefits and Challenges*. Chicago, IL: Consortium on Chicago School Research.
4. For further discussion of the importance of system alignment and coherence in support of teaching and learning the following articles from HBR and McREL. Childress, S, Elmore, R., and Grossman, A. (November 2006). *How to Manage Urban School Districts*. Cambridge, MA: Harvard Business Review.
5. A second discussion of the importance of systems alignment can be found in, Waters, T., and Marzano, R. (September 2006). *District Leadership that Works: The Effect of Superintendent Leadership on Student Achievement*. Denver, CO: Mid-continental Research for Education and Learning.
6. For a more detailed report on the achievement progress and alignment process in U-46, see [Aligning an Instructional System to Close the Achievement Gap](#), a research report on reform in District U-46 on the Stupski Foundation website, www.stupski.org