



High Quality, Subject-Specific Instruction

Why focus on this?

*When creating a systems-framework for schools based on research, there is recognition within much of the research on school improvement and turnaround... that improvement efforts need to become systematic about **WHAT** is taught and **HOW** it is taught. One of the foundational elements of the Instructional System is the development of a **vision and framework for high-quality, subject-specific instruction.***

Having a core instructional vision for a district is a critical concept. An instructional vision and framework drives the actual instructional practices that take place. These instructional practices are then monitored by district leadership through Instructional Leadership Routines and reviewed for improvement through Teacher Collaborative Routines. Many of the relevant initiatives that have demonstrated evidence of improvement at scale have included a common vision for student learning and classroom instruction that is shared among educators and well understood to ensure efficacy of instruction in the classroom.

Research in educational policy intended for school improvement “treats the classroom as a black box and fails to take a position on what counts as high quality instruction. As a consequence, the resulting recommendations for school and district improvement strategies were relatively global and generic.”

(Cobb et al, 2013)

Most districts have, historically, adopted a model of subject-specific instruction for their Instructional System, which introduces three key considerations from research on student learning. First, research on instructional practices suggest that there are three primary “understandings” for teachers that factor in most instruction: **content knowledge** (an understanding of the content or topics being taught) (Buchmann, 1982), **pedagogical knowledge** (an understanding of general instructional practices necessary to engage with and support learning for students) (Shulman, 1986) and **pedagogical content knowledge** (Shulman, 1987; Ball and McDiarmid, 1990). Pedagogical content knowledge (PCK) is critical because it is more than the connection between content and pedagogy; it is knowledge of how best to help learners develop their understanding or skill in a specific topic, such as a math teacher knowing how to

provide multiple representations of a complex concept. PCK is also knowledge about any difficulties or misconceptions a learner might have in dealing with a specific concept (Wilson et al, 1987). Each discipline or subject area often has several such challenges or potential misconceptions, and PCK is an understanding of the practices that might best develop correct understandings, and/or remediate any misconceptions students develop (Moru and Qhobela, 2013; Magnusson et al, 1999). PCK was first identified by researchers as a key element of instruction in the 1980’s, and the concept has been researched more fully ever since.

Second, visions for high-quality instruction are based on visions for student outcomes that focus on concepts such as career, college, and civic readiness. These outcomes are usually broken down in terms of disciplinary skills or understandings, and are assessed with this in mind.

Consider the early literacy skills necessary to transition from “learning to read” to “reading to learn”. Think about the knowledge and understanding of civics, economics, and history one needs in order to effectively participate in local, state, or national government. This is why it is vital to have a solid understanding of content-specific knowledge or concepts in order to develop the district’s curriculum and understand how content is best addressed in the classroom. Content-specific knowledge or concepts make up “content standards,” or a set of performance and knowledge expectations identified by the state or district. These expectations are the basis for the assessments the state uses to evaluate student progress and learning. This is why it is vital that performance and knowledge expectations are part of the district curriculum and assessment system (part of the Instructional System).

Lastly, research suggests districts develop visions of high-quality, subject specific instruction because effective curriculum incorporates “learning progressions” (National Research Council, 2006). Learning progressions are an extension of both PCK and the content-specific standards. Learning progressions are developed based on research of subject-specific learning. These progressions help educators understand what concepts and content need to be covered first to provide basic understandings that might then be expanded upon to address more complex concepts for learners. Learning progressions are the basis of a “vertically aligned curriculum”. They can be used to map out when specific content is addressed in the curriculum. Learning progressions support instruction for building content understandings sequentially to ensure appropriate depth of knowledge. These progressions also build upon prior knowledge learned in earlier grades (Schmidt et al, 2005). It is for these reasons that the development of a vision and framework for high-quality, subject-specific instruction is one of the foundational elements of the Instructional System.

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