A Functionality Framework for Educational Organizations: Achieving Accountability at Scale

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Use of the term “standards-based” has become common in education reform, but is rarely applied to educational systems or organizations. There is a need for clearer expectations at every level of education organizations - classroom, school, district, and state. How well education organizations operate within and across these levels is far more important than the content of the programs they implement. The primary role of education support systems is to build and maintain capacity to deliver and improve instruction. Capacity to perform precedes performance. Focusing accountability efforts solely on performance, or outputs, tells us little about how our education systems must adapt to build requisite capacity to perform at high levels. Sustained improvement of teaching and learning requires a coherent representation of how individuals within education organizations interact, as well as a detailed description of the specific functions we expect to see at each level of an integrated education system.

Introduction

In the early 1990s, the Rhode Island Board of Regents established a statewide agenda to ensure that all students meet high expectations of academic proficiency and personal growth. Working with the Rhode Island Department of Education (RIDE), the Governor and the General Assembly adopted the state Comprehensive Education Strategy (CES) in 1992. As set forth in the CES, there are three sequential components to an inquiry-based, evidence-dependent system of improving school and student performance:

& Setting high standards and clear expectations for student achievement;
& Measuring school and student progress toward the shared standards; and
& Ensuring accountability for results in terms of achievement

An effective accountability system is dependent on all three components, which must be reflected in both peer driven “internal” accountability and hierarchical “external” accountability.
Standardized expectations for instructional practice and education support systems, provided they are meaningfully linked to building and maintaining capacity, are as important as expectations for student achievement. Capacity to change performance is the key to sustainable improvement, yet it is often just assumed to exist. If we do not know how classroom, school, district and state efforts need to work together to build and maintain capacity within individuals – we can be sure that they will not. Accountability requires an understanding of the complex and overlapping systems at work in schools and school districts. We can no longer view each piece of the puzzle in isolation, hoping it will trigger a sustainable system in the aggregate.

Evidence-based inquiry requires standards against which current performance can be measured and evaluated. In order to improve teaching and learning, we must first improve the educational systems that support effective instructional practice. Clarity of expectations provides the context to make information about current practice relevant. Measuring school and district progress towards established standards requires corresponding information systems. Effective leadership is the applied use of informed professional judgment to address gaps in the capacity of individuals to perform to predetermined, shared expectations.

Making Education Organizations Accountable for Teaching and Learning

The typical approach to accountability relies heavily on external bureaucratic controls. At a minimum, these external controls consist of standards for student performance as mandated by the No Child Left Behind Act (NCLB). However, focusing solely on outcomes does little to address how inputs and processes need to be adjusted to achieve those outcomes, given the context of the situation. (Abbott 2005). Education organizations consist of many levels – classroom, school, district, and state education agency – each of which is accountable to the next level. When seen in a typical pyramid of organization, these external forces can be seen to exist on a vertical axis. Sustainable improvement requires that these external influences be matched by internal expectations within each level of the organization. The manner in which peers interact and hold each other accountable is as important as the clarity of external expectations, if not more so. Schools as “professional learning communities” is certainly an idea whose time has come (Dufour 2005), but we are still experimenting with the role that district oversight and capacity building plays in their development. Understanding how vertical articulation of purpose and horizontal efforts at collaboration need to mesh in order to achieve commonly held goals of improved student achievement is the key to sustained improvement of instructional practice.

Although it may be obvious, it is worth restating that changes in learning will not occur without changes in instruction. Organizational changes must be geared toward, and measured against, actual changes in instructional practices in individual classrooms. Attempts to change instructional practice without regard to the organizational structures and belief systems that support the classroom will at best be ineffectual. As Dewey noted almost seventy years ago, “Attempts to deal with [institutions and customs] simply
on the basis on what is obvious in the present is bound to result in adoption of superficial measures which in the end will only render existing problems more acute and more difficult to solve.” (Dewey, p. 77 1938).

We are therefore tackling the task of improving the professionalism of educational practice at scale. This is less a question of pedagogy than of understanding how human beings learn to do things differently. (Elmore 2004). The influence of internal controls, as exercised through peer relationships, has proven to be far more effective in generating sustained change than the isolated influence of external controls operating alone. (Bolman & Deal 1991). The dynamics of positive change are inherently bound up with both the internal organization of the group and the external environment, or organization, within which that group operates. Organizational structure must focus not only on expected changes in behavior, but must also support change in the causes of unwanted behaviors and attitudes in order to accomplish sustained, comprehensive changes in behavior by every member in the targeted group. (Argyris 1990). Meaningful and sustained change will not occur solely by bringing external controls, expressed as standards, to a group of education professionals accustomed to operating as free agents.

This, then, is the goal of educational leadership – to build shared ownership of both the end goals of effective instructional systems and the manner in which such systems are built. Shared ownership requires shared responsibility. “If the formal authority of my role requires that I hold you accountable for some action or outcome, then I have an equal and complementary responsibility to ensure that you will have the capacity to do what I am asking you to do.” (Elmore 1997). This notion of two-way accountability exists within each level of every education organization, as well as between each level from classroom practice to district, state and federal policy creation.

The hierarchical, or vertical, articulation of policy and accountability formulation is no more important than the lateral, or horizontal, reality of how educational professionals interact. The vertical structure of systems hierarchy must support the ability of each horizontal element of the system to operate at its highest possible level. (Homans 1950). Capacity building from one level of the organization to the next must be informed by accurate information about current levels of performance to be effective. The three components of evidence-based practice exemplified by the CES must therefore be aligned across both the vertical and horizontal planes of organizational structure.

An accurate vision of an effective statewide education system, one that stimulates a clear understanding of both purpose and design from state agency to classroom, requires several distinct elements. First, we must understand the basics of human interaction within each level of the organization – i.e., how individuals relate as peers within an internal system at the classroom, school, district, and state level. Second, we must understand how different levels of an overall systemic hierarchy interact to achieve mutual goals, as well as how policy initiatives from the top of the hierarchy become shared goals across other levels of the system. This is the key to migrate capacity from
one level to the next, which in turn illustrates the need for leadership and capacity-
building to be fully integrated throughout the system. Third, we must define the role of
information gathering, analysis and dissemination in creating common goals and
accountability measures in order to ensure full functionality at every level of the
organization as measured against commonly held expectations.

School Improvement as Evidence-Based Practice

The single purpose underlying this linking of vertical and horizontal accountability is the
improvement of teaching and learning in the classroom. The mission statement of the
Board of Regents and Department of Education exemplifies this underlying purpose.

   To ensure that all Rhode Island public school students have equal
   access to a rigorous, consistent curriculum designed to prepare
   them for life beyond secondary school, not just in core academics,
   but in civic education, technological skills, health and fitness, and
   artistic awareness and appreciation.

When we are truly committed to ensuring the success of every student, inputs, rather
than expectations, will be variable. Students with more difficult paths to high
achievement, such as students with disabilities, students living in poverty, and children
with limited English proficiency, will require more individualized instruction, more time in
the educational environment, more support, and more resources. The ability to
differentiate these inputs is dependent on the underlying ability to provide the services
and resources at all.

There is an inherent disconnect between what we expect as learner/teacher outcomes
and the realities of the educational systems that support instruction. Over the years, we
have created a system of inputs that do not sufficiently impact the many layers of
complexity that exist in public education systems. We continuously implement new
strategic directions without an adequate understanding of either the interplay among
diverse reform impulses or the hard reality of the predicative work that needs to be done
to prepare individuals to embrace the changes in behavior that such reforms require.

Demanding improvement of student achievement outcomes without addressing learning
environments, access to educational opportunities, training, sufficiency of instructional
resources, consistency of access to educational rigor, teacher training, role of
administration and accountability – and dozens of other variables – will not result in a
more effective or equitable system of education. A fully functional school or district is
able to be effective regardless of the particular programs or initiatives it relies upon.
Conversely, even the most promising or research-based approach will have little lasting
impact if implemented in a dysfunctional education system.
Internal Accountability
Evidence-based practice requires clear expectations, responsive information systems and two-way accountability. Application of evidence-based practice to education reform within each level of the overall system should result in a continuum of improvement efforts. In Rhode Island, this continuum at the school level is known as School Accountability for Learning and Teaching (SALT). It is an expression of the ideals of internal, or horizontal accountability in which peers interact and collaborate to pursue commonly held goals. The four sequential stages of internal accountability for change are expressed in the familiar SALT cycle of continuous improvement.

We first measure our current performance against a pre-established set of clear expectations. This “gap analysis” of the distance between where we are and where we want to be is needs assessment. Accurate needs assessment requires clarity of expectations and relevance of available information.

Needs assessment precedes planning, the second step of evidence-based improvement. Just as needs assessment is impossible without relevant information, effective planning requires access to accurate information regarding both current practice and expected outcomes. Well-intentioned planning to use “research-based” strategies and programs is meaningless without effective implementation. Finally, evidence-based practice requires evaluation of the effectiveness of what has been implemented. Evaluation in turn provides new information for the next round of needs assessment.

The four stages of evidence-based improvement – needs assessment, planning, implementation, and evaluation – form a cycle informed by data. Being sequential, these stages may also be expressed as a four step linear process.
Seen in this way, we are faced with the question of how to ensure that an education organization is ready to engage in a meaningful effort to improve. The level of collective skill and mutual drive required to sustain improvement is often overlooked.

Readiness

Education organizations are comprised of individuals. The purpose of such organizations is to enable individuals to work together to achieve common purposes or functions. We need a better understanding of how education organizations operate in order to design programs that meet the behavioral, systemic, and organizational needs that must change in order to reform the education opportunities provided to students. Too often we attempt to measure the performance of individuals within the education system, without also taking into account whether those individuals have the capacity to perform to our expectations. Capacity to perform precedes performance.

Performance evaluation, while necessary, is insufficient. When an individual does not perform in a desired manner, we need to know that, but we also need to know why not. Was it that the person was unready, unwilling – or unable? Capacity building should ensure that people are first ready to perform, before trying to make them able to perform. Recognition of the need to develop “readiness” skills is crucial to effective implementation of new programs or initiatives. As such, it should be the goal of every level of educational organizations to build the capacity of both individuals and the system to improve. The use of relevant data to inform those individuals of the gaps between expectations and current performance is a crucial element to developing organizational readiness.

Readiness occurs in two stages. Internalization comes first, when a single individual is ready to change his or her practice. An important element of internalization is
awareness. Too often individuals are not able to change simply because they do not understand what is expected of them or how to get there. Ignorance of the need or ability to change will be the primary stumbling block to internalization, which is more a measure of knowledge than belief.

Collective readiness to work together to improve a system is collaboration. The existence of a collective readiness to collaborate to achieve a common goal is often referred to as the “culture” of the education organization. It involves a collective appreciation of the need to change, a willingness to work together, an understanding of the work ahead, and a tolerance for risk-taking and potential failure. These internal variables are essential to sustained change. (Elmore 2004). However, collaboration goes beyond culture; the organization must also provide the opportunity for individuals to collaborate through infrastructural support including time and facilitation to foster collaborative efforts.

Leadership is the engine that moves an education organization to readiness and then through the four stages of evidence-based improvement. Readiness and ability to change precede improvement. It is the building of individual and collective capacity to improve that moves a school or district from awareness to internalization to collaboration to improvement. Although there is a sequence to this process, it is clearly cyclical, with internalization and collaboration needing to be developed for each successive round of improvements. When fully operational, leadership operates to keep the cycle moving, ready to adapt to new external forces and reform agenda.
Every step must be informed by relevant information and evaluated against clear expectations. Leadership and effective management skills are necessary to guide the use of relevant evidence of current practices throughout this cycle of readiness and improvement. As individuals become more adept in their reliance on evidence to guide their individual choices, the more sustained the improvement will become.

Capacity Building and External Accountability

So far, we have focused on the internal workings within any one level of an education organization. Classrooms, schools and districts do not exist independent of one another. Each is part of a larger, interdependent system. Individual classrooms are hopefully supported by an effective school structure, which is in turn supported by a responsive district structure, which is in turn supported by the state. The vertical relationships between these levels are as important as what occurs within each horizontal layer of the overall system.

It is the responsibility of each layer of the overall organizational structure to build the capacity of the next level of the system. Thus, it is the responsibility of the state education agency to build the capacity of school districts, so that they in turn can build the capacities for leadership, readiness and improvement in their schools. Just as collaboration within each level of organization is required for sustainability, alignment through the vertical axis of the overall structure is equally important to ensure that such collaborations work toward common goals.
Only by providing the appropriate degree of training, resources, opportunity, and organizational climate can we ever hope to hold individuals accountable for their lack of production or performance. This emphasis on capacity building and readiness rather than content alone has profound implications for the manner in which we approach and implement our educational accountability systems. That is the essence of two-way accountability. We must be willing to hold ourselves accountable for the presence or lack of capacity of the individuals whose performance we are willing to measure and hold accountable.

Building capacity for readiness and improvement requires input across four dimensions, the most important of which is leadership. Leadership is by far the most important element of capacity building, simply because it controls the application of the other three relevant inputs as dictated by the context presented. Personal supports comprise the second element of capacity building. Common elements of support efforts include: professional development, mentoring, technical assistance, peer observation and formative evaluation, and exposure to modeled effective practices.

The third element of capacity building is infrastructure. Infrastructure includes organizational structure, process and facilitation, access to technology, appropriate resources and materials, and, most importantly, opportunity, which is typically quantified as time. The fourth aspect of capacity building, and the one most often emphasized to the exclusion of the others, is the actual content of the program, practice, or initiative one hopes to implement. Leadership informs and guides the appropriate application of supports, infrastructure and content as circumstances and individual needs dictate.
These four aspects of capacity: Leadership, personal supports, infrastructure, and programmatic content, must be present in order to effect sustainable change. The presence or absence of capacity building between hierarchical levels of the organization structure – from state to district, from district to school, and from school to classroom – is the determinative factor in the success or failure of improvement efforts. All education professionals within the organization must frame their responsibilities in terms of their contribution to enhancing someone else’s capacity and performance. Central office administrators should be judged on how well they contribute to school leaders’ capacity to work with teachers; principals should be evaluated by how well they contribute to teachers; teachers should be evaluated by their contributions to students – and each level of performance should be gauged by the degree to which the organization has built their capacity to perform as expected.

Capacity building, including leadership, fuels the requisite interactions between theory and practice, between planning and implementation. It must be present from one level to the next, and it must be present within each layer of the overall education organization, classroom to state.

Leadership from one level of the organization to the next is the engine that drives the specific elements of capacity building needed for the next level of the system to adapt to external demands. Distributive leadership within each level moves that part of the system from readiness through improvement. These two leadership impulses must
work in concert in order to apply capacity to stimulate needed behaviors – thereby achieving functionality in the targeted area.

Reform efforts that focus solely on the content of a new program or approach at the expense of building the readiness of the organization to assess, plan, implement and evaluate that initiative, will fail to become self-sustaining. They will simply fade away, become incorporated into a few teachers’ practices in ad hoc fashion, or simply be pushed out by the next round of reforms. Sustainability requires a collaborative effort, individualized to the context presented, supported and led by effective leadership, and at all times welcoming of available feedback on effectiveness.

Educational systems that provide this combination of concerted capacity building, organizational infrastructure, personal supports, and leadership demonstrate incredible results. Those that do not will be unable to incorporate or sustain new and effective practices with any measure of consistency or coherence.

Defining Systems Expectations for Functionality

Understanding how education organizations function is of little use if we do not have agreement on what we expect those functions to accomplish. Common understanding is the cornerstone of effective leadership. It is also the essential first stage of evidence-based practice as set forth in the Comprehensive Education Strategy: set high standards and clear expectations for student (and organizational) achievement. Continuous and sustained improvement is a series of activities rather than a single event. These activities can best be described as functions specific to each level of educational organizations – classroom, school, district, and state.

An integrated framework of functions, expressed as expectations, would build a common language regarding the specific individual behaviors that are required in order to improve learning for both students and instructional professionals, and serve as a common point of reference for school, district, and state agency operations and improvement efforts. Focusing on function, rather than program or performance alone, would enable education leaders to move from reflection to action across a greater number of areas that demand improvement.

There are therefore two aspects of an effective framework of functionality for our education system: a description of how individuals within education organizations interact in pursuit of their professional goals; and a description of the functions an education organization accomplishes at each level in order for the entire system to be effective.

It is convenient to think of systemic education functions as part of a hierarchical pyramid, which is appropriate in the educational context only if we think in terms of a hierarchy of relevance. In such a system, the student, not the state Department of Education, would be at the apex. Functions build upon each other, starting with the needs and expected outcomes for the student. “The student” in this context is every
student, not a student. Everything builds from the student. The interaction between teacher and learner is of course the heart of education. Everything else, while vitally important to that relationship, is part of an education support system. The farther away from the interaction between teacher and learner, the more attenuated the connection.

By the time you get to the state education agency, you are looking for evidence that the state effectively builds district capacity through the provision of leadership, content, personal supports, and infrastructure. If present, we can then move to the district and gauge the provision of leadership, content, personal supports, and infrastructure to the schools in that district. Evaluation of the same four measures at the school level is next. Behaviors of every individual within each level provide feedback both within that level, as well as feedback to those more removed from instructional practice as one moves away from the student at the apex. This feedback is essential to the provision of capacity-building efforts from leadership at every level of the overall organizational structure. (Homans 1950).

A picture begins to emerge of the core functions we need to gauge the effectiveness of a classroom, school, district, or state agency. First, core functions need to be
established at each level of the overall system, expressed here as the green boxes at each level. The farther away from the educational relationship of teacher and learner, the more attenuated and diffuse the work will become. A greater number of functions should not be confused with greater importance. In this model of organization, the student has only one function – to grow and learn as the recipient of a collective effort from every other level of the educational system supporting him or her. However, the concept of instruction as a tool for building students’ capacity to learn is a highly complex endeavor far beyond the scope of this article, but one that is worthy of much further discussion.

Conversely, at the other end of the continuum, a state education agency has many functions. Foremost, it supports the districts that are next closest to the learner. Two-way accountability requires the state to build districts’ capacity for every function the state asks districts to fulfill. There are also two functions the state must provide that districts do not: advocacy with the executive and legislative branches around policy issues and resources, and oversight of state and federal funding and policy mandates. Similarly, the district engages in levels of policy making, infrastructure development, and resource distribution that schools are not required to perform. However, the school takes on different functions due to its dual role as a key element of a larger education organization and as an independent learning community.

This model therefore consists of a series of levels, each of which contains several boxes, or functions. The all-important interactions between levels are represented by the four areas of capacity building, anchored in leadership, which are delivered from one level to the next. Finally, there is an active system of providing and receiving continuous feedback on current levels of performance.

Capacity plus performance equals functionality. Capacity to perform precedes performance. We ultimately want to measure the functionality of instructional practice. At present, we evaluate only performance. An individual’s capacity to perform is usually not adequately measured, nor is leadership typically held accountable for building that capacity. Evaluating performance without evaluating capacity will never reveal what the organization must do in order to generate the desired performance or behavior.

The world of public education is complex. Each core function is comprised of several component functions. (See Appendix A for a complete set of functions across classroom, school, district, and state dimensions). Fulfilling every component function within a core area results in the core function being fully implemented. Functions at every level of the organization are a combination of capacity and performance. Therefore, it makes sense to define both the capacity required to generate the desired performance for each component function, as well as the actual performance or behavior desired. This level of detail is absolutely necessary for the meaningful design of the information and evaluation systems we will need to gauge the effectiveness of each function. (Elmore 2000).
Some aspects of capacity building can be directly observed as behaviors; others cannot. Indicators comprising a data collection and analysis system must be designed to measure those capacities that cannot be directly observed. School and district visitation structures need to focus on direct observations of desired behaviors and interactions. These two different information systems need to complement one another, each operating to create an accurate picture of the current functionality at every level of the organizational structure.

Correspondent information systems can then be developed to gauge the effectiveness of both performance and capacity. When observation reveals performance to be lacking or non-existent, information about relevant capacity should inform leadership of the need for future allocation of resources. That is the nature of effective needs assessment and planning. Changes in measures of capacity and performance must then inform the question of effectiveness of implementation. That is the role of evaluation.

Despite the value of specifying various functions for the purpose of information gathering and evaluation, functionality appears to operate only in the aggregate. In other words, if correctly identified, all of the functions, expressed through capacity building and leadership, for each level of the education organization must be present in order to sustain improvements in instructional practice. (Duffy, Rogerson & Blick 2000). It does not appear that linear support of specific initiatives or programs has any lasting effect without attention to capacity building and leadership – specifically targeted for those initiatives or programs. Achieving functionality at scale requires systems for all three phases of the CES: setting high standards and clear expectations; measuring progress toward predetermined expectations; and ensuring accountability for results in terms of achievement.

Embedding the Functionality Framework into Practice

A framework of functionality could serve as a common base for the many tools we use to organize improvement efforts. To be truly effective, this framework must incorporate both an awareness of how individuals interact within the organization, as well as a means of anchoring expectations for specific functions across levels. Consensus regarding the construct and content of such a framework would provide educators with the opportunity to create a system of supports and accountability in which information systems, improvement planning, budgeting, professional development, leadership expectations, and evaluation efforts are tied together in a seamless structure – both within each level, and from one level of the overall system to the next.

Continuous and sustained improvement of student achievement requires an organizational construct that:

- Ensures commonality of purpose at every level of the organization to build trust among education professionals;
• Makes information systems relevant to the decisions facing instructional leaders at each level of the education organization;
• Maintains a system of hierarchical organization that supports professional learning and collaboration within each level of the organization; and,
• Anchors needs assessment, planning, and evaluation in clear expectations.

There is a clear need to build readiness within each level of the educational structure through the progressive process of internalization and collaboration. Effective improvement efforts rely on both internal (horizontal) and external (vertical) accountability within an overall system of organization from the classroom to the state agency. These two concepts are readily adapted into practice if we simply adopt the presumption that accounting for capacity-building, including the development of individual and collective readiness, is as important as the content of what we are trying to implement in the name of reform.

In order to achieve sustained results over time, every initiative or program that a state, district, or school implements should account for the necessary four elements of capacity-building: leadership, personal supports, infrastructure, and specific content or program. For example, in order to implement a new student advisory program within a school, it is not enough to have the principal attend training designed for teachers. There must also be training designed specifically to build the principal's capacity to oversee and monitor the implementation of the new program. Likewise, there may need to be infrastructural adjustments made to ensure that there are organizational opportunities for teachers to engage in the desired activities. Only then will the training and supports necessary to deliver the content of the advisory continue to be effective over time.

Continuing with the example of implementing student advisories, this framework also could provide a base for use of relevant data to inform efforts to monitor or evaluate program effectiveness. Available data sources, expressed as indicators, could be mapped against the specific functions contained in the framework. Mapping a new initiative against those functions would allow pre-determined indicators to measure levels of functioning in a pre/post fashion. Going a step further, aligning school and district improvement plans to their respective functions would allow such indicators to ensure alignment of both strategic direction and effective measurement across levels within the organization.

Finally, examination of current levels of performance against desired levels of functionality would provide an opportunity to respond to low levels of performance by addressing capacity gaps of both individuals and the system itself. Requiring each level of the organization to focus on its own levels of functionality, with the knowledge that there will be meaningful assistance in the form of capacity-building to address gaps in performance, would go a very long way to ensuring that implementation of proven practices will generate positive results over time. Capacity to perform precedes performance. That may be the primary message of education, but it is one that has largely been lost in the effort to improve education organizations.
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