

Eight Elements of High School Improvement: A Mapping Framework

National High School Center

Research on comprehensive school reform suggests that improvement strategies have the best opportunity for success and sustainability when they take into account the broad array of elements that make up the system being improved. Yet, many current high school improvement initiatives are focused only on specific priority topics (e.g., dropout prevention), specific intervention strategies (e.g., advisories, small schools), or program initiatives (e.g., Check and Connect). Although such approaches can have an important impact, their reach is too frequently limited to a subset of systemic reform elements. Implementing such initiatives may lead to success in addressing specific needs, but the probability of widespread improvement is small when initiatives are implemented in isolation from the broader education systems within which they operate.

The National High School Center’s goal is to encourage researchers, policymakers, and practitioners at all levels to engage in comprehensive, systemic efforts to maximize attainment for all high school students, with a focus on those students who have been historically underserved. To this end, we have developed a framework that consists of eight core elements and provides a lens for mapping school, district, and state high school improvement efforts. The exercise of mapping should inform strategic planning and implementation efforts by illuminating the connections among elements, revealing strengths and gaps in current state and district policies, and highlighting the stakeholders who should be aware of and involved in future improvement efforts.

This document offers descriptions of the eight elements of high school improvement:

Rigorous Curriculum and Instruction	Stakeholder Engagement
Assessment and Accountability	Leadership and Governance
Teacher Quality and Professional Development	Organization and Structure
Student and Family Supports	Resources for Sustainability

Four points are important to note. **First**, the particular combination or separation of the elements is less significant than an understanding that these elements, which are often treated as discrete, actually are inter-related parts of a single system. Each element has an impact on the others, so understanding their interconnectivity is a critical task. **Second**, a major challenge of using this framework is the risk of overwhelming those involved in the work. Every high school improvement initiative does not need to have some activity in each of the elements at every moment. Rather, mapping the implications of an improvement initiative among all affected elements at the outset will lead to more strategic decisions initially and over time. **Third**, every high school and related high school improvement initiative is situated in a unique geographic, cultural, demographic, political, and societal context, which influences the school’s vision, mission, structure, culture, and outcomes. Any efforts at high school improvement must take into account these particular school- and system-level contexts. These considerations affect each element and must be explicitly addressed when improvement strategies are devised. **Fourth**, if scalable and sustainable improvement is the ultimate goal, it is likely that the implementation of improvement efforts will require organizational change. No strategy can be complete without attention to the challenges of leading change within the respective organizational cultures.

Eight Elements of High School Improvement

The eight systemic reform elements that make up the National High School Center Mapping Framework are listed below with their respective characteristics of effectiveness:

- 1. Rigorous Curriculum and Instruction:** Everyone in the system is responsible for ensuring that all students have access to rigorous content and instruction that
 - align to local, state, and national standards that look toward the depth of knowledge, skills, and abilities needed for students to thrive in emerging economic, citizenship, and community contexts;
 - incorporate multiple research-based instructional strategies, such as scaffolding, differentiated instruction, and double dosing, for all students, including those with special instructional needs;

- address both academic and workplace literacy skills across all content areas and provide students with knowledge of a variety of career pathways;
- adapt easily to a variety of school organizational structures;
- are organized around student instructional needs and align with instruction in other content areas to support thematic and project-based learning, tiered instruction, etc.;
- interface with the existing school curriculum and quality of instruction;
- align vertically with prerequisite content, cognitive skills, curricula, and follow-up coursework;
- incorporate new modalities for learning and information sharing, including technology and universal design for learning;
- include academic supports such as tutoring, co-curricular activities, and extended learning opportunities, such as summer bridge programs, after-school and supplemental educational services, and Saturday academies;
- incorporate cognitive skills development, including note taking, outlining, content summarizing and synthesis, study skills, and test-taking skills; and
- involve continuous progress monitoring/formative assessment and the differentiation of teaching to meet multiple learners' needs.

2. Assessment and Accountability: Balanced assessment and accountability systems cover a broad range of formal and informal assessment policies and practices aligned across multiple levels that

- include formative assessments embedded in instruction;
- may include school-based portfolios or projects, interim or benchmark exams (which often are implemented at the district level) as well as end-of-course exams, state standards-based assessments, and high-stakes competency or exit exams;
- provide timely and effective feedback and access to data so that teachers, students, and parents can capture and evaluate student knowledge and skills, plan for future educational programs, and adapt instruction to better meet student needs;
- encourage and support continuous progress monitoring through both formal and informal assessments;
- give teachers and students access to college and work readiness assessments in order to best plan high school courses of study;
- support the early identification of students with special needs and those at risk of failure so that placement and tiered interventions appropriately meet student needs;
- collect and report longitudinal data to measure short- and long-term student growth for student-, teacher-, and/or program-based impact evaluations, including new interventions and initiatives; and
- can include both internal and external accountability provisions, including teacher and program performance measures, rewards, and consequences (depending on local and state contexts).

3. Teacher Quality and Professional Development: Teacher quality and professional development systems recognize a teacher's need for deep content and pedagogical knowledge and include a broad set of recruitment, preparation, induction, professional growth, and retention policies and practices that

- include accreditation of teacher education programs, teacher certification and licensure standards and procedures, professional development requirements and opportunities, compensation systems, and local norms and expectations;
- are based on standards for staff development and adult learning and pass quality reviews;
- promote knowledge of adolescent development, varied and effective pedagogy for high school students, and the ability to motivate students and to work with diverse student needs effectively and empathetically;

- increase the abilities of and opportunities for teachers to work together to improve classroom practice and help all students connect information across disciplines and programs, such as Title I, special education, and services for English language learners;
 - provide teachers with skills in assessing students and adjusting instruction accordingly;
 - are embedded at the school and classroom levels and are connected and offered throughout the school year;
 - help teachers develop and build on their classroom and leadership skills and abilities over time and, preferably, in collaboration with other teachers and instructional leaders; and
 - promote effective classroom management skills.
- 4. Student and Family Supports:** All high school students need guidance and supports that address the whole child, including physical and socio-emotional needs, through positive conditions for learning that
- incorporate formal and informal guidance programs, including peer and professional counseling and mentoring;
 - include attendance and behavior monitoring and support systems, such as Positive Behavior Intervention and Supports (PBIS);
 - support wrap-around and English-language services that extend beyond the classroom;
 - foster a positive school climate, including safe schools and respectful environments (e.g., anti-bullying);
 - cultivate student voice and leadership in the classroom, school, co-curricular activities, and community;
 - promote health and physical education and co-curricular activities;
 - support students as they transition into and out of high school;
 - provide family-focused services and outreach that engage parents and family members in programs and services; and
 - respect and honor the strengths and resources of the student’s family and community.
- 5. Stakeholder Engagement:** High schools exist in unique social, political, and cultural contexts, and high school improvement efforts should incorporate stakeholder engagement strategies that
- engage the interests, needs, skills, and resources of its multiple stakeholders, such as school staffs, students, parents and family members, guardians, community organizations and members, and business partners;
 - foster relationships among high schools, middle-level and elementary schools, and postsecondary education institutions (e.g., dual enrollment agreements), the workforce, families, and communities;
 - ensure that all appropriate stakeholders are at the table during critical planning and decision-making activities;
 - incorporate multiple communications strategies that are culturally and linguistically appropriate and support two-way communications;
 - acknowledge and draw on the strengths of the various stakeholder groups;
 - are designed with contingencies of stakeholders in mind; and
 - incorporate technologies to more creatively and effectively support stakeholder engagement.
- 6. Leadership and Governance:** Promoting and supporting high-quality instructional and organizational leadership at the building and district levels require exercising leadership and approaches to governance that
- provide principals with adequate knowledge, time, and interpersonal skills to work with teachers as they define curricular and instructional goals and develop instructional strategies;
 - promote distributed leadership, encouraging multiple roles for teacher leaders and tackling organizational change where necessary;

- incorporate alternative structures to address management, discipline, and other functions of running high schools traditionally performed by principals;
- shift the focus of state and local policymakers and education agency staffs to support comprehensive high school improvement centered on strengthening the instructional core;
- enact enabling policies and codify a vision, a mission, and/or strategic plans for scale-up and sustainability;
- develop strategies and skills to lead and support required organizational change; and
- clarify decision-making authority at all levels and recognize the expectations, requirements, compensation, and recognition of faculty and staff.

7. Organization and Structure: Many high school improvement initiatives are enhanced by or may necessitate changes from the organization and structure of traditional, comprehensive high schools toward operational structures that

- support effective teaching and learning and personalization through physical and operational changes, such as the creation of small schools and smaller learning communities, freshman academies, career academies, career-tech high schools, and other alternative structures;
- incorporate alternative time/scheduling approaches, such as block scheduling, year-round schooling, and double dosing, especially in core academic courses;
- provide increased opportunities to learn, such as virtual courses, dual enrollment opportunities, and work-based internships;
- include students with special needs in the general curriculum with access to rigorous content through co-teaching, tiered intervention structures, and adaptive supports;
- support teacher organizational changes beyond traditional departmental structures, such as common planning periods, professional learning communities, and co-teaching; and
- support the difficult process of culture changes as roles, responsibilities, relationships, and patterns of engagement change.

8. Resources for Sustainability: Critical to any high school improvement initiatives are the identification and commitment of adequate fiscal and other resources that

- grow both the physical and human capital within the system for implementation and sustainability of high school reforms;
- continuously upgrade facilities, tools, and materials to keep pace with the changing economy, technology, and citizenship expectations;
- adequately staff the initiatives and acknowledge the need for workload equalization and/or reduction;
- provide appropriate time and necessary fiscal support for initiatives to be implemented and take hold;
- continuously develop teacher knowledge and skills to incorporate these changes into their instruction;
- move effective practices to full implementation and scale-up; and
- define priorities and allocate needed resources to sustain them over time.

References

- Adelman, C. (2006). *The toolbox revisited: Paths to degree completion from high school through college*. Washington, DC: U.S. Department of Education.
- American Productivity and Quality Center. (2000). *Benchmarking best practices in accountability systems in education*. Houston, TX: Author.
- American Institutes for Research. (2005). *Toward more effective school districts: A review of the knowledge base*. Washington, DC: Author. Retrieved from <http://www.air.org/projects/Toward%20More%20Effective%20School%20Districts-A%20Review%20of%20the%20Knowledge%20Base%206-14-05%20313%20pm.pdf>
- Borman, G. D., Hewes, G. M., Overman, L. T., & Brown, S. (2002). *Comprehensive school reform and student achievement: A meta-analysis* (Report No. 59). Baltimore: Johns Hopkins University/CRESPAR.
- Catsambis, S. (1998). *Expanding the knowledge of parental involvement in secondary education: Effects on high school academic success* (Report No. 27). Baltimore: Johns Hopkins University.
- Charles A. Dana Center. (2000). *Equity-driven achievement-focused school districts*. Austin, TX: Charles A. Dana Center.
- The Education Alliance at Brown University. (2007). *Developing and implementing statewide systems of support for low-performing schools*. Providence, RI: Author. Retrieved from http://www.alliance.brown.edu/projects/csraqi/docs/CSRQI_Design_Elements_SSOS.pdf
- Henderson, A. T., & Berla, N. (Eds.). (1994). *A new generation of evidence: The family is critical to student achievement* (report from the National Committee for Citizens in Education). Washington, DC: Center for Law and Education.
- Hornbeck, M. (2001). *State support to lower performing schools* [Unpublished Manuscript]. Washington, DC: The Council of Chief State School Officers.
- Johnson, D. R., & Thurlow, M. L. (2003). *A national study on graduation requirements and diploma options for youth with disabilities* (Technical Report 36). University of Minnesota, National Center on Educational Outcomes. Retrieved from <http://www.education.umn.edu/NCEO/OnlinePubs/Technical36.htm>
- Learning First Alliance. (2003). *Beyond islands of excellence: What districts can do to improve instruction and achievement in all schools*. Washington, DC: Author.
- Lee, V. E., & Smith, J. B. (1995). Effects of high school restructuring and size on early gains in achievement and engagement. *Sociology of Education*, 68(4), 241–70.
- Legters, N., Balfanz, R., Jordan, W., & McPartland, J. (2002). *Comprehensive reform for urban high schools: A Talent Development approach*. New York: Teachers College Press.
- Marsh, J. (2000). *Connecting districts to the policy dialogue: A review of literature on the relationship of districts with states, schools, and communities*. Seattle, WA: Center for the Study of Teaching and Policy.
- McLaughlin, M., & Talbert, J. (2003). *Reforming districts: How districts support school reform*. Seattle, WA: Center for Study of Teaching and Policy.
- Newmann, F. M., & Wehlage, G. G. (1995). *Successful school restructuring*. Madison, WI: Center on Organization and Restructuring of Schools.
- O’Day, J., & Bitter, C. (2003). *Evaluation study of the immediate intervention/underperforming schools program and the high achieving/improving schools program of the Public Schools Accountability Act of 1999*. Palo Alto, CA: American Institutes for Research.
- Reeves, C. (2003). *State support to low-performing schools*. Washington, DC: Council of Chief State School Officers.
- Snipes, J., Doolittle, F., & Herlihy, C. (2002). *Foundations for success: Case studies of how urban school systems improve student achievement* (report prepared for the Council of the Great City Schools). New York: MDRC.
- Unger, C., Lane, B., Cutler, E., Lee, S., Whitney, J, Arruda, E., & Silva, M. (2008). *How can state education agencies support district improvement: A conversation amongst educational leaders, researchers, and policy actors*. Providence, RI: The Education Alliance at Brown University. Retrieved from <http://www.alliance.brown.edu/pubs/csraqi/Symposium.pdf>

