In the following report, Hanover Research reviews literature on the relationship between school climate and academic achievement. The report also examines the role of implementation science in school improvement.
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EXECUTIVE SUMMARY AND KEY FINDINGS

INTRODUCTION

A growing body of research on school effectiveness suggests that school climate is a critical factor in student achievement and school success. School climate includes “the quality and character of school life” and is based on the school’s norms, values, goals, relationships, teaching, learning, and leadership practices, and organizational structures. In the following report, Hanover Research reviews literature on school climate and investigates the relationship between school climate and academic achievement. The report includes two sections:

- **Section I: School Climate and Academic Achievement** introduces the dimensions of school climate and evaluates the degree to which school climate impacts academic achievement.
- **Section II: Implementation Models for School Climate Improvement** examines literature on implementation science and presents three models and tools for improving school climate.

KEY FINDINGS

- Research suggests a positive correlation between school climate and academic achievement but does not specify a quantifiable benchmark at which school climate advances academic achievement. A range of factors are considered to influence the school climate, including factors which are difficult to control, such as neighborhood violence, and factors that school leaders may directly influence, such as instructional quality. The complexity of the school climate concept limits the extent to which research may clearly define the relationship between climate and student achievement.

- To create a student-centered learning climate, a school must first provide a safe and orderly environment with minimal distractions, clear behavior expectations, and reasonable disciplinary standards. Schools that have achieved a safe and orderly environment may make additional improvements to the school climate to develop a culture of academic achievement and a system that ensures academic achievement.

- School improvement models often include a rubric of indicators that a school may use to assess performance in each dimension of school climate and monitor progress toward goals. For example, the National School Climate Center proposes a continuous School Climate Improvement Process as well as the use of a

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Comprehensive School Climate Inventory (CSCI) that lists indicators that schools may use to assess the school climate. Schools may adapt school improvement models to focus on the indicators most pertinent to the local context.

- **School improvement models emphasize a cyclical and dynamic, rather than linear, improvement process.** For example, the University of Chicago Consortium on Chicago School Research framework emphasizes the interdependent nature of each essential support and the continuous process of evaluation and improvement that schools must undergo. In the Indistar model, schools continuously work toward higher levels of performance through regular progress monitoring.
SECTION I: SCHOOL CLIMATE AND ACADEMIC ACHIEVEMENT

In this section, Hanover Research reviews literature on school climate and evaluates the relationship between school climate and academic achievement.

SCHOOL CLIMATE AND ACADEMIC ACHIEVEMENT

In our examination of school climate literature, we found limited research that specifies a quantifiable benchmark at which a school may be considered to have a positive climate or at which school climate significantly affects student achievement. However, multiple correlational studies suggest that school climate is linked to academic, social, and behavioral student outcomes.

The National School Climate Center (NSCC) identifies four dimensions that comprise school climate, including safety, relationships, teaching and learning, and the external environment. Figure 1.1 presents the four dimensions of school climate.

![Figure 1.1: Dimensions of School Climate](source)

While educators have “recognized the importance of school climate for 100 years,” researchers only began to study climate systematically in the 1950s. Research on school climate suggests that a positive climate is associated with high academic achievement as

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well as positive behavioral outcomes. Moreover, school climate has the capacity to enhance, or detract from, student learning and can powerfully influence students’ motivation to learn.

Moreover, multiple studies connect positive school climate to strong academic performance. A recently published WestEd study measured the impact of school climate in California middle and high schools and found that schools with positive school climates were more likely to be high-performing—classified as “beating the odds”—than schools with less positive climates. Furthermore, a positive school climate was found to be more likely to impact school success than other variables, such as personnel resources and student demographics. A similar study published in the Canadian Journal of Education evaluated the effects of a school’s mean socioeconomic status, climate, and student demographic variables on academic achievement. Using hierarchical linear modelling, the study found that a school’s disciplinary climate was the most important determinant of academic achievement and had significant absolute effects on student performance in mathematics, science, and writing that were greater than the effects of any other variable.

Though research demonstrates a clear link between school climate and academic achievement, further research is necessary to determine the extent to which climate impacts achievement and reasons why it does so. As one study speculates,

[It] seems that positive school climate leads to a greater focus on and attunement to what students need to develop in health ways and learn, and what teachers need to teach. But in fact there are clearly complex sets of forces that shape the quality and character of each school, and we have much to learn about the specific needs of different types of schools. What is clear is that school climate matters.

While the precise relationship between school climate and student achievement can be difficult to ascertain, numerous studies have found school climate to have a moderating effect on achievement or, at a minimum, on the proximal factors that affect achievement. A 2011 study published in the Journal of Youth and Adolescence found that instructional quality, social/emotional climate, and teacher-student conflict impacted the classroom context, and, ultimately, student psychological engagement and behavioral engagement. Study authors had some difficulty confirming the impact of these factors on academic outcomes, however; the data revealed only a small correlation between psychological engagement and academic achievement and between behavioral engagement and academic achievement. Figure 1.2 describes the strength of the relationship between each mediating factor and academic achievement.

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Other studies have had more success identifying the extent to which specific aspects of school climate affect student outcomes. A 2010 study published in *The Urban Review* found that increases in neighborhood violence were associated with statistically significant achievement decreases of 4.2 to 8.7 percent on math and reading assessments and that increases in perceived safety were associated with statistically significant increases in achievement scores of 16 to 22 percent. A 2006 study published in the *Journal of Character Education* similarly found a moderate to strong relationship between school climate, as perceived by students, parents, and staff, and student outcomes on math and reading assessments.

**Measures of School Climate**

School climate includes social, emotional, and civic aspects of learning as well as a school’s unique cultural context and, thus, can be difficult to quantify. Nevertheless, educators have developed a number of tools to assess school climate such as inventories, surveys, and frameworks. For instance, Figure 1.3 describes the dimensions and major indicators that comprise the NSCC’s Comprehensive School Climate Inventory (CSCI). The CSCI includes indicators for 12 dimensions of a successful school climate, and it provides one way for educators to conceptualize and assess climate via measurable, manageable components.

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**Figure 1.2: Mediating Factors of Academic Achievement**

Note: Asterisks denote statistical significance. Bold values represent correlations for students with a history of academic difficulties. Non-bold values represent correlations for the entire study sample.

Source: *Journal of Youth and Adolescence*  

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12 *p<.05; **p<.01  
Figure 1.3: NSCC Comprehensive School Climate Inventory

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>MAJOR INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td><strong>Rules and Norms:</strong> Clearly communicated rules about physical violence; clearly communicated rules about verbal abuse, harassment, and teasing; clear and consistent enforcement and norms for adult intervention.</td>
</tr>
<tr>
<td></td>
<td><strong>Sense of Physical Security:</strong> Sense that students and adults feel safe from physical harm in the school.</td>
</tr>
<tr>
<td></td>
<td><strong>Sense of Social-Emotional Security:</strong> Sense that students feel safe from verbal abuse, teasing, and exclusion.</td>
</tr>
<tr>
<td>Teaching and Learning</td>
<td><strong>Support for Learning:</strong> Use of supportive teaching practices, such as: encouragement and constructive feedback; varied opportunities to demonstrate knowledge and skills; support for risk-taking and independent.</td>
</tr>
<tr>
<td></td>
<td><strong>Social and Civic Learning:</strong> Support for the development of social and civic knowledge, skills, and dispositions including: effective listening, conflict resolution, self-reflection and emotional regulation, empathy, personal responsibility, and ethical decision making.</td>
</tr>
<tr>
<td>Interpersonal Relationships</td>
<td><strong>Respect for Diversity:</strong> Mutual respect for individual differences (e.g. gender, race, culture, etc.) at all levels of the school—student-student; adult-student; adult-adult and overall norms for tolerance.</td>
</tr>
<tr>
<td></td>
<td><strong>Social Support—Adults:</strong> Pattern of supportive and caring adult relationships for students, including high expectations for students’ success, willingness to listen to students to get to know them as individuals, and personal concern for students’ problems.</td>
</tr>
<tr>
<td></td>
<td><strong>Social Support—Students:</strong> Pattern of supportive peer relationships for students, including friendships for socializing, for problems, for academic help, and for new students.</td>
</tr>
<tr>
<td>Institutional Environment</td>
<td><strong>School Connectedness/Engagement:</strong> Positive identification with the school and norms for broad participation in school life for students, staff, and families.</td>
</tr>
<tr>
<td></td>
<td><strong>Physical Surroundings:</strong> Cleanliness, order, and appeal of facilities and adequate resources and materials.</td>
</tr>
<tr>
<td>Staff Only</td>
<td><strong>Leadership:</strong> Administration that creates and communicates a clear vision, and is accessible to and supportive of school staff and staff development.</td>
</tr>
<tr>
<td></td>
<td><strong>Professional Relationships:</strong> Positive attitudes and relationships among school staff that supports effectively working and learning together.</td>
</tr>
</tbody>
</table>

Source: NSCC

One of the most common tools employed to assess school climate is the survey, which may be administered to students, parents, staff, and community stakeholders. Surveys have the benefit not only of informing administrators but also of providing stakeholders with an outlet to express their attitudes toward the district and school. Indeed, educators have hailed the parent survey as a useful tool for promoting engagement by providing parents with an outlet for feedback and helping school leaders understand and address any barriers to parental involvement.

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Climate surveys may also take place within a broader evaluation of school characteristics and student achievement. For instance, the University of Chicago Consortium on Chicago School Research (CCSR) used surveys to measure the degree to which elements of successful schools existed in Chicago elementary schools. The surveys evaluated five essential supports, which in addition to a student-centered learning climate, included school’s leadership, parent-community ties, professional capacity of faculty and staff, and ambitious instruction.\(^{19}\) The CCSR found that schools with strong supports (including a student-centered climate) were likely to achieve gains in reading and mathematics.\(^{20}\)

In the absence of a clear statistical model for school climate improvement, Robert J. Marzano proposed a framework with specific metrics to evaluate and improve school climate. Marzano identifies five levels of school effectiveness. At the first level, schools provide a “safe and orderly environment that supports cooperation and collaboration.”\(^{21}\) Schools at the fifth and highest level of effectiveness provide “a competency-based system that ensures student mastery of content.”\(^{22}\) Marzano presents criterion indicators that schools must achieve and continuously monitor to be considered reliable at each level. To promote a safe and orderly environment, schools may consider reviewing Figure 1.4.

**Figure 1.4: Marzano’s Criterion for a Safe and Orderly Environment**

<table>
<thead>
<tr>
<th>LEVEL 1 CRITERION INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Few, if any, incidents occur in which students’ safety is compromised</td>
</tr>
<tr>
<td>✓ Few, if any, incidents occur in which rules and procedures are not followed</td>
</tr>
<tr>
<td>✓ Surveys of faculty, staff, students, parents, and community indicate high agreement that the school is safe and orderly</td>
</tr>
<tr>
<td>✓ Surveys of faculty, staff, students, parents, and community indicate high agreement that they have input into the well-functioning of the school.</td>
</tr>
<tr>
<td>✓ Evidence is available regarding specific decisions that were made with input from students, parents, and the community</td>
</tr>
<tr>
<td>✓ Evidence is available for specific projects that were developed through collaborative efforts of teacher teams</td>
</tr>
<tr>
<td>✓ Materials and resources, and time available for specific classes and courses meet the state or district specifications for those classes and courses</td>
</tr>
<tr>
<td>✓ Evidence is available that adequate proportions of the school budget are focused on issues that directly support teaching and learning</td>
</tr>
<tr>
<td>✓ Evidence is available that specific accomplishments of the school and/or individuals within the school have been formally acknowledged</td>
</tr>
<tr>
<td>✓ Incidents indicating teacher dissatisfaction with the school (e.g., teacher requests for transfers to other schools) are very low or nonexistent.</td>
</tr>
</tbody>
</table>

Source: Marzano\(^{24}\)


\(^{20}\) Ibid., p. 2.


\(^{22}\) Ibid., p. 16.

\(^{23}\) Bulleted items adapted from: Ibid., pp. 1, 5.
Marzano suggests that if a school achieves success in all five levels, it has implemented a system to “guarantee that every student has mastered specific content necessary for success in the 21st century.” Specific indicators for a school at the fifth level are focused on competency-based instruction. Level five indicators include a written master plan that articulates specific scores necessary for students to demonstrate competence in each subject area, reports that indicate each student’s status in each subject area, a written master plan that articulates alternative ways students may demonstrate competence in each subject area, a written plan that specifies how students can pursue college-level content and pursue careers of interest, and reports that indicate the time necessary for students to advance through the curriculum in each subject area.

While the levels of the Marzano framework are technically sequential, schools “can and should” work toward achieving the indicators associated with each level simultaneously. As a school moves through each level, it becomes increasingly “reliable relative to more variables and becomes more transformational in its approach to educating its students.” Figure 1.5 summarizes each of Marzano’s five levels of school effectiveness. A full list of the criterion indicators for each level is included in the Appendix of this report.

Figure 1.5: Marzano Levels of School Effectiveness

<table>
<thead>
<tr>
<th>Level 1</th>
<th>A safe and orderly environment that supports cooperation and collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 2</td>
<td>An instructional framework that develops and maintains effective instruction in every classroom</td>
</tr>
<tr>
<td>Level 3</td>
<td>A guaranteed and viable curriculum focused on enhancing student learning</td>
</tr>
<tr>
<td>Level 4</td>
<td>A standards-referenced system of reporting student progress</td>
</tr>
<tr>
<td>Level 5</td>
<td>A competency-based system that ensures student mastery of content</td>
</tr>
</tbody>
</table>

Source: Marzano

Other research on school improvement supports Marzano’s concept of levels of school effectiveness with a safe and orderly environment as the first step toward a culture of academic achievement and student success. The CCSR study, for example, underscores the

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25 Ibid., p. 17.
26 Ibid., p. 1.
27 Ibid.
28 Ibid., p. 1.
significance of a student-centered learning climate that, at its most basic, consists of a safe and orderly environment. Similar to the Marzano framework, CCSR considers safe and orderly environments to be those with minimal distractions (such as behavior issues), clear expectations for behavior that are fairly and consistently enforced, and an acceptable level of learning engagement. At the highest level, schools that have achieved a student-centered climate have rigorous academic standards and a culture of peer norms that value academic achievement.29

SECTION II: IMPLEMENTATION MODELS FOR CLIMATE AND ACADEMIC IMPROVEMENT

In the following section, Hanover Research reviews literature on implementation science and presents three models for school climate improvement.

FIDELITY OF IMPLEMENTATION AND SCHOOL IMPROVEMENT

Fidelity of implementation refers to the extent that the “delivery of an intervention adheres to the protocol or program model originally developed.” Evidence suggests that fidelity of implementation is essential for ensuring the success of any new initiative, including school climate or instruction. Studies on instructional delivery, for instance, suggest that a teacher’s adherence to an evidence-based curriculum directly affects student achievement. A 2009 report produced by the National Implementation Research Network (NIRN) at the University of North Carolina-Chapel Hill highlights the challenge of implementing research-based interventions in human services fields, such as education:

In human services, the practitioner is the intervention. The science and quality have to be built into hundreds of thousands of practitioners situated in a variety of provider organizations that function within uniquely configured state and federal service systems. This is a very difficult task when fully exposed to the vagaries of life. Thus, in human services, our challenge in making use of science is how to build the science and quality into the daily performances of millions of practitioners across the nation.

Following with the quote above, school climate largely depends on human factors where the educator is the intervention, and the success hinges upon his or her fidelity of implementation. Further, organizations exist “within complex, multi-layered social contexts,” and research suggests that organizations take an active approach to the implementation of evidence-based practices. The NIRN report proposes six core stages of active implementation: exploration, installation, initial implementation, full implementation, innovation, and sustainability. These stages are dynamic and cyclical, rather than linear, and involve certain core components that support high-fidelity behavior.

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31 Ibid., p. 714.
Core components include staff selection and training, ongoing coaching and consultation, staff evaluation, decision support data systems, facilitative administrative support, and systems interventions. Figure 2.1 presents the core components that support the implementation of evidence-based programs.

**Figure 2.1: Core Components of Implementation**

<table>
<thead>
<tr>
<th>Staff Performance Evaluation</th>
<th>Consultation &amp; Coaching</th>
<th>Decision Support Data Systems</th>
<th>Integrated &amp; Compensatory</th>
<th>Facilitative Administrative Supports</th>
<th>Recruitment and Selection</th>
<th>Systems Interventions</th>
</tr>
</thead>
</table>

Source: NIRN

**SCHOOL IMPROVEMENT MODELS**

It is difficult to isolate the implementation of school climate interventions from other core school functions for academic improvement, and so this section examines implementation models within the broader context of school improvement. School improvement models that employ components of active implementation may implement programs (including school climate) with high fidelity. For instance, the NSCC proposes a model that is based on a traditional problem-solving cycle in which an organization plans for change and sets goals; assesses strengths, needs, and weaknesses; interprets evaluations; develops and implements an action plan; and re-evaluates its accomplishments to prepare for the subsequent phase of improvement. The following profiles present three school improvement models or tools that may help schools to maximize achievement and improve school climate by addressing fidelity of implementation.

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**National School Climate Center Model**

The NSCC aims to help schools improve their climates with a five-stage School Climate Improvement Process. The NSCC recommends that schools undergo a defined process to achieve the following school climate goals:

- The school community has a shared vision and plan for promoting, enhancing and sustaining a positive school climate.
- The school community sets policies specifically promoting (a) the development and sustainability of social, emotional, ethical, civic and intellectual skills, knowledge, dispositions and engagement, and (b) a comprehensive system to address barriers to learning and teaching and reengage students who have become disengaged.
- The school community's practices are identified, supported and prioritized to (a) promote the learning and positive social, emotional, ethical and civic development of students, (b) enhance engagement in teaching, learning, and school-wide activities; (c) address barriers to learning and teaching and reengage those who have become disengaged; and (d) develop and sustain an appropriate operational infrastructure and capacity building mechanisms for meeting this standard.
- The school community creates an environment where all members are welcomed, supported, and feel safe in school: socially, emotionally, intellectually and physically.
- The school community develops meaningful and engaging practices, activities and norms that promote social and civic responsibilities and a commitment to social justice.  

To improve climate, a school should consider adopting a process that consists of a continuous cycle of preparation, evaluation, action planning, implementation, and re-evaluation. Figure 2.2 exhibits the NSCC’s proposed process and related tasks and challenges at each stage.

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38 Ibid.
**UNIVERSITY OF CHICAGO FRAMEWORK**

The University of Chicago Consortium on Chicago School Research (CCSR) developed a framework of essential supports and resources necessary for school improvement based on studies of Chicago public elementary schools between 1990 and 1996. The model identifies five essential supports as well as contextual resources that contribute to school improvement in academic achievement and climate. CCSR found that deft leadership, strong parent-community ties, professional capacity, a student-centered learning climate, and ambitious instruction were factors that most influenced student achievement. Schools with strong supports were at least ten times more likely than schools with weak supports to show gains in both math and reading achievement. In addition, the study found that the local community context significantly impacts school improvement.40 Like the NSCC’s school climate improvement process, the framework of essential supports is a dynamic model, rather than a step-by-step plan, in which all supports interact to achieve school improvement.

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improvement. Figure 2.3 shows the relationship between the elements that affect student achievement.

**Figure 2.3: Interaction between Essential Supports for School Improvement**

Building on the CCSR research, the Carnegie Foundation collected and analyzed survey data to determine the extent to which the essential supports affect student achievement. Schools with strong indicators in support areas were 10 times more likely to improve than schools with weak supports. Furthermore, schools with strong supports demonstrated improvements in reading, while schools with weak supports did not improve. In addition, researchers found that the social and local context can be either a great resource (when positive) or barrier to school improvement (when negative). For example, schools in neighborhoods with strong social capital and a history of working together were more likely to improve than those in neighborhoods with a weaker local context. In addition, schools with a large proportion of students living under extraordinary circumstances faced significant barriers to improvement. Hence, local context and factors such as school size and the stability of the student body may be considered confounding variables that also impact a school’s ability to improve.

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41 Ibid., p. 16.
43 Ibid., p. 28.
44 Ibid., p. 29.
**INDISTAR**

A product of the Academic Development Institute, Indistar is described as “a web-based tool that guides a district or school leadership team in charting its improvement and managing the continuous or rapid improvement process.”\(^{46}\) Indistar emphasizes the fidelity of implementation through school-based teams and offers software applications, as well as coaching and feedback, to facilitate district and school focus on improving professional practice. The application uses indicators to allow district leaders to continuously compare their implementation practice against research-based standards and determine a plan for improvement.\(^{47}\) State education agencies may customize sets of indicators based on the unique needs of schools and districts.\(^{48}\)

Indicators are customizable and may reflect different components of school climate and general school improvement. Figure 2.4 provides examples of indicators that are designed specifically for school turnaround efforts to improve school and classroom culture.

**Figure 2.4: Examples of Indicators Aligned to School Climate**

- All school staff demonstrate an understanding of community cultures, customs, and values and model a respect for them. (3052)
- All teachers acquire an understanding of each student's background and interests as a way to increase motivation to learn. (3053)
- All teachers include social and emotional learning objectives in their instructional plans. (3054)
- All teachers model, teach, and reinforce social and emotional competencies. (3055)
- When waiting for assistance from the teacher, students are occupied with curriculum-related activities provided by the teacher. (156)
- Transitions between instructional modes are brief and orderly. (157)
- Students raise hands or otherwise signal before speaking. (159)
- All teachers display classroom rules and procedures in the classroom.
- All teachers reinforce classroom rules and procedures by positively teaching them. (165)
- All teachers use a variety of strategies to motivate students that honor their cultures, interests, and strengths. (3087)\(^{49}\)

Like the NSCC model and CCSR framework, Indistar emphasizes the importance of a continuous process of improvement (Figure 2.5). Even when a school or district has fully achieved an implementation goal (indicator), it must revisit the indicator after a period of

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\(^{48}\) Ibid., p. 3.

\(^{49}\) Bulleted items taken verbatim from “Indistar Resources: Documents.” Rapid Improvement Indicators with Turnaround (school level), pp. 5-6. http://www.indistar.org/gettingstarted/
time. The application may recommend additional tasks to achieve a higher level of implementation. As the Indistar resource guide suggests, “the work is never done, but the district is continuously spiraling to higher levels of performance.”

Indistar’s continuous cycle of improvement involves the steps of assessing and diagnosing a school’s professional and school performance, planning and implementing an improvement strategy, monitoring progress, and adjusting the plan as necessary.

**Figure 2.5: Indistar Web-Based Interface**

Source: Indistar

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50 Ibid., pp. 3-4.
51 “Assessing Indicators and Creating a Plan.” Staunton City Schools. 
## APPENDIX

### Figure A.1: Marzano Levels of School Effectiveness Indicators

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>CRITERION INDICATORS</th>
</tr>
</thead>
</table>
| Level 2: An Instructional Framework that Develops and Maintains Effective Instruction in Every Classroom | - A document describing the school’s instructional model is available  
- Survey data indicate that teachers are well aware of the school’s instructional model and their status within that model  
- Evidence exists that the school has a demonstrated record of hiring and retaining effective teachers  
- Evidence is available that teacher growth in pedagogical skill is consistent and meets or exceeds acceptable levels  
- Evidence is available that teacher growth in pedagogical skill is related to the professional development opportunities provided by the school  
- Evidence is available that the average level of teacher pedagogical skill meets or exceeds acceptable levels  
- Evidence is available that any teacher who is below acceptable levels of pedagogical skill and/or growth is adhering to a detailed growth plan  
- The distribution of teachers’ pedagogical status is consistent with measures of student growth within the school  
- Survey data indicate high levels of agreement that the school in general and the evaluation system in particular are designed to help teachers improve their pedagogical skills  
- Evidence exists that teachers who have demonstrated little or no desire to develop or maintain high levels of pedagogical skill are counseled out of the profession or terminated in extreme cases |
| Level 3: A Guaranteed and Viable Curriculum Focused on Enhancing Student Learning | - Curriculum documents are in place that correlate the written curriculum to state and district standards (e.g., Common Core if applicable)  
- Curriculum documents are in place correlating the written curriculum to the skills important to 21st century learning (e.g., College and Career Readiness Skills and Mathematical Practice Skills from the CCSS)  
- Information is available correlating what is taught in the classrooms (i.e., the taught curriculum) and the written curriculum  
- Information is available examining the extent to which assessments accurately measure the written and taught curriculums  
- A written list of essential elements is in place  
- A written list of essential vocabulary is in place for all levels (i.e., tiers 1, 2, and 3)  
- A curriculum audit document is in place delineating how much time it would take to adequately address the essential elements |
<table>
<thead>
<tr>
<th><strong>Level</strong></th>
<th><strong>Criterion Indicators</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- All students have a prescribed program of study that documents access to courses</td>
</tr>
<tr>
<td></td>
<td>- Written goals are available specifying the percentage of students who will score at a proficient or higher level on state assessments or benchmark assessments</td>
</tr>
<tr>
<td></td>
<td>- Written goals are available specifying the elimination of differences in achievement for students at different socioeconomic levels</td>
</tr>
<tr>
<td></td>
<td>- Written goals are available specifying the elimination of differences in achievement for students of differing ethnicities</td>
</tr>
<tr>
<td></td>
<td>- Written goals are available specifying the elimination of the achievement gap for all students</td>
</tr>
<tr>
<td></td>
<td>- Written goals are available specifying the elimination of differences in achievement for English language learners</td>
</tr>
<tr>
<td></td>
<td>- Written goals are available specifying the elimination of differences in achievement for students with disabilities</td>
</tr>
<tr>
<td></td>
<td>- Written timelines are available containing specific benchmarks for each goal, including individual(s) responsible for the goal</td>
</tr>
<tr>
<td></td>
<td>- Reports, graphs, and charts are available for overall student achievement</td>
</tr>
<tr>
<td></td>
<td>- Evidence is available showing that reports, graphs, and charts are regularly updated to track growth in student achievement</td>
</tr>
<tr>
<td></td>
<td>- Evidence is available that students who need instructional support outside of the regular classroom have had access to and taken advantage of such support</td>
</tr>
</tbody>
</table>

**Level 4: A Standards-Referenced System of Reporting Student Progress**

- Written goals are available for each student in terms of their performance on state assessments, benchmark assessments, or common assessments  |
|          | - Documents articulating the learning progression for each essential element are available for each subject area  |
|          | - Written goals are available for each student in terms of their knowledge gain regarding essential elements  |
|          | - Reports, charts, and graphs are available for individual students depicting their status and growth on their learning goals  |
|          | - Report-cards display student status and growth on essential elements and individual learning goals  |

**Level 5: A Competency-Based System That Ensures Student Mastery of Content**

- A written master plan is available articulating the criterion scores necessary to demonstrate competence for each essential element at each level for each subject area  |
<p>|          | - Reports are available that indicate each student’s current status for each essential element at each level for each subject area  |
|          | - A written master plan is available articulating the alternate pathways a student might take to learn and demonstrate competence in each essential element at each level for each subject area  |</p>
<table>
<thead>
<tr>
<th>LEVEL</th>
<th>CRITERION INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• A written master plan is available articulating how students can pursue advanced content, work on college credit, and pursue careers of interest</td>
</tr>
<tr>
<td></td>
<td>• Reports are available depicting how long students are taking to move through the curriculum for each subject area at each level</td>
</tr>
</tbody>
</table>

Source: Marzano53

**PROJECT EVALUATION FORM**

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