

# FDNY High School for Fire and Life Safety

## FINAL REPORT



New York City Department of Education External School Curriculum Audit | August 2011

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# Introduction

## About This Report

This final report is the result of an external school curriculum audit (ESCA) of FDNY High School for Fire and Life Safety by Learning Point Associates, an affiliate of American Institutes for Research. This audit was conducted in response to the school being identified as in need of improvement under the New York State Education Department differentiated accountability plan, pursuant to the accountability requirements of the Elementary and Secondary Education Act, as reauthorized by the No Child Left Behind Act. The utilized ESCA process was developed for and carried out under the auspices of the New York City Department of Education (NYCDOE) Office of School Development, within the Division of Portfolio Planning.

## About FDNY High School for Fire and Life Safety

Located in Brooklyn, FDNY High School for Fire and Life Safety (K502) is a high school with 420 students in Grades 9–12. The school population comprises 80 percent black, 19 percent Hispanic, 0 percent white, and 1 percent Asian students.<sup>1</sup> The student body includes 4 percent English language learners (ELLs) and 16 percent special education students.<sup>2</sup> About 78.9 percent of students are boys, and 21.1 percent are girls. The average attendance rate for the 2009–10 school year is 80 percent. Seventy-five percent of the student population is eligible for free lunch, and 6 percent of students are eligible for reduced-price lunch.<sup>3</sup>

FDNY High School is a small school community located on the Thomas Jefferson Educational Campus in Brooklyn. The school is colocated on the campus with three other high schools, each with its own primary floor and sharing common spaces like auditoriums, libraries, gymnasiums, and cafeterias. The school works in partnership with the New York City Fire Department (FDNY), and the curriculum is geared toward preparing youth for a variety of careers with the FDNY. In addition to core academic subjects, electives provide foundational skills and information in preparation for emergency medical technician (EMT) certification exams and an opportunity for paid internships with the FDNY. FDNY staff members are assigned to the school, and these individuals provide instruction, mentorship, and leadership for students. The school is a limited unscreened school, which means that although students may elect to attend FDNY High School, priority is given to students who live in the geographical region.

The 2008–09 New York State Accountability Report indicates that the school did not make adequate yearly progress (AYP) in English language arts (ELA) for economically disadvantaged students or in math for the categories of all students, black or African-American, and economically disadvantaged students.<sup>4</sup> The 2009–10 New York State Accountability Report indicates that the school did not make AYP in the aforementioned categories and ELA in the

<sup>1</sup> <https://www.nystart.gov/publicweb-rc/2010/c0/AOR-2010-331900011502.pdf>. Accessed on March 3, 2011.

<sup>2</sup> <https://www.nystart.gov/publicweb-rc/2010/c0/AOR-2010-331900011502.pdf>. Accessed on March 3, 2011.

<sup>3</sup> [http://schools.nyc.gov/documents/teachandlearn/sesdr/2010-11/sesdr\\_K502.pdf](http://schools.nyc.gov/documents/teachandlearn/sesdr/2010-11/sesdr_K502.pdf). Accessed on March 3, 2011.

<sup>4</sup> <https://www.nystart.gov/publicweb-rc/2009/c0/AOR-2009-331900011502.pdf>. Accessed on March 3, 2011.

categories for all students and black or African-American students.<sup>5</sup> The failure to meet AYP benchmarks across all subgroups for two consecutive years has resulted in the identification of the school as a School in Need of Improvement (Year 1)<sup>6</sup> for both ELA and math. The report also indicates that the school is currently in good standing for graduation rate, although the school did not make the benchmark for AYP in the area of graduation rate in the 2009–10 school year. During the data collection phase of the ESCA, school leaders noted that approximately one quarter of freshmen earn fewer than five credits their first year, which puts them off-track for graduation.

In the 2010–11 school year, the school implemented a number of new programs aimed at improving instruction and learning. The school began using Skedula, a data management system designed to integrate data from multiple sources into a teacher-friendly interface to facilitate data-driven instructional decision making. Other new initiatives implemented include a *READ 180* class, tutoring opportunities, a credit recovery program, and a guidance initiative aimed at increasing attendance for targeted students. During the data collection phase, interviewees noted that effectiveness of the new programs had yet to be determined through data analysis.

## **Audit Process at FDNY High School for Fire and Life Safety**

The ESCA approach utilized at the high school level examines six topic areas: student engagement, academic interventions and supports, support for incoming students, classroom instruction, professional development, and courses and extracurriculars. Data were collected at the school level via teacher surveys, administrator interviews, classroom observations, and an analysis of documents submitted by FDNY High School during the month of April 2011. From these data, Learning Point Associates prepared a series of reports for the school's use.

These reports were presented to the school at a co-interpretation<sup>SM</sup> meeting on April 15, 2011. During this meeting, 12 stakeholders from the FDNY High School community read the reports. Through a facilitated and collaborative group process, they identified individual findings, then developed and prioritized key findings that emerged from information in the reports.

The remainder of this report presents the key findings that emerged from the co-interpretation process and the actionable recommendations that Learning Point Associates developed in response. Please note that there is not necessarily a one-to-one connection between key findings and recommendations; rather, the key findings are considered as a group, and the recommended strategies are those that we believe are most likely to have the greatest positive impact on student performance at FDNY High School.

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<sup>5</sup> <https://www.nystart.gov/publicweb-rc/2010/c0/AOR-2010-331900011502.pdf>. Accessed on March 3, 2011

<sup>6</sup> <https://www.nystart.gov/publicweb-rc/2010/c0/AOR-2010-331900011502.pdf>. Accessed on March 3, 2011.

# Key Findings

## Critical Key Findings

After considerable thought and discussion, co-interpretation participants determined a set of critical key findings. These key findings are detailed in this section.

### **CRITICAL KEY FINDING 1:**

According to the teacher survey and observations, student behavior is a major factor in impeding the educational process.

Critical Key Finding 1 is supported by information from the teacher survey and classroom observations conducted by the auditors. The survey was completed by 100 percent of the classroom teachers, and 17 observation cycles were completed in language arts, math, science, and social studies classrooms. Observation data indicated that behavior was a significant disruptor in many classrooms and, at times, prevented the teachers from delivering instruction. In some classrooms, other off-task behaviors such as talking and walking around characterized the majority of students. The teacher survey revealed that 80 percent of respondents stated that they have little influence on setting standards for student behavior. Further, 72 percent of respondents indicated that the school does not have a schoolwide behavior plan.

### **CRITICAL KEY FINDING 2:**

According to the teacher survey and observations, there is a disconnect that exists between teachers and students, evidenced by a lack of positive climate in some classrooms.

Critical Key Finding 2 is supported by information from the teacher survey and classroom observations conducted by using an observation protocol titled the Classroom Assessment Scoring System for Secondary Schools (CLASS-S). Two dimensions of the protocol focus on aspects of emotional support: positive climate and regard for adolescent perspectives. Co-interpretation participants noted that in many classrooms there was evidence of positive climate for brief periods of time, but evidence of a positive climate was not consistent across the observation periods. It was also noted that across classrooms, there were inconsistent occurrences or a lack of opportunities for student leadership, student choice, encouragement of student ideas and opinions, and meaningful peer interactions. Survey respondents were asked about student interactions in the classroom. More than two thirds of the respondents indicated that students sometimes or never show each other respect during the discussion.

### **CRITICAL KEY FINDING 3:**

The surveys indicate that many teachers are unsatisfied with professional development opportunities and relevancy (special education needs). The teachers also indicate that they have minimal to no influence in determining professional development topics.

Critical Key Finding 3 is supported by information from the teacher survey. Respondents were asked about the degree to which various professional development topics were helpful

for improving instruction. The survey also inquired about teacher influence on and input into professional development and other school policies. Nearly half of the survey respondents (45.5 percent) indicated that they had not received professional development on teaching students with disabilities (SWDs). Of those who did receive professional development on this topic, 67 percent reported that it was minimally or not helpful. Similarly, at least 40 percent of the teachers indicated they did not receive training for teaching ELLs and students who are several years below grade level, using individualized education programs (IEPs) for SWDs, or coteaching a class. Of those who did receive professional development on these topics, at least 50 percent found the professional development to be minimally or not helpful. With regard to teacher influence, 86 percent of teachers indicated that they have no or minimal influence on determining professional development opportunities. Finally, teachers had mixed opinions about whether or not professional development was sustained and coherently focused and included opportunities to work productively with colleagues.

## **Additional Key Findings**

Additional key findings were identified by co-interpretation participants but were not prioritized by the group for action planning. However, the auditors found these key findings worthy of consideration in developing recommendations.

### **ADDITIONAL KEY FINDING 1:**

According to the survey, a large number of teachers indicated that they need more time to coplan and collaborate (between general education, special education, and ELL teachers) so that differentiation can be properly implemented to address learning.

Additional Key Finding 1 is supported by information from the teacher survey. Although 58 percent of respondents reported that their colleagues provide support for improving instruction for SWDs to a moderate to great extent, half of the respondents also indicated that special education and general education teachers do not routinely share knowledge and strategies. In addition, of those teachers who indicate they teach ELL students, two thirds report that ELL and general education teachers do not use common planning time or professional development time to collaborate. Further, more than 40 percent of the respondents indicated that they did not receive training for teaching SWDs, ELLs, or using IEPs for SWDs. Finally, respondents gave mixed responses to the frequency with which they differentiate content, product, and processes for SWDs and ELL students.

### **ADDITIONAL KEY FINDING 2:**

According to observations, there was a lack of higher-level content understanding across observed classrooms.

Additional Key Finding 2 is supported by information from observation data. Three of the dimensions of the observation instrument focus on aspects of instructional support: content understanding, analysis and problem solving, and quality of feedback. Participants noted that of the 17 observation cycles completed, no classroom scored in the high range on content understanding. Observation data indicate that classrooms tended to focus on discrete bits of information, and that discussion of broad concepts was limited in duration.

# Recommendations

## Overview of Recommendations

During the FDNY High School co-interpretation process, school staff and faculty identified behavior and climate issues and professional development for teaching SWDs as priority areas for improvement. Instructional issues garnered much discussion at the co-interpretation meeting, and although a key finding was developed by the participants that acknowledged a lack of higher levels of content understanding according to the observation data, it was not prioritized. The auditors noted that often it was difficult for the teachers to engage in effective teaching because of student behavioral issues in the classroom. Small and whole-group discussions at the co-interpretation concluded that further data collection about the types of learning activities provided to students would better inform how to target improvement efforts.

Participants raised questions about the best approach to change inappropriate student behavior—whether it was best to approach the issue with engaging instruction and providing challenging tasks for students or to take on behavioral issues with behavior management strategies and initiatives. The auditors believe that a dual approach may better serve students and staff—incorporating strategies to specifically address behavior, as well as continually working to provide appropriate academic challenges to students. Discussions among teachers and facilitators at the co-interpretation indicated that there have been efforts to examine and ensure rigorous instruction for ELA classes. The auditors believe these efforts should extend to other subject areas as well, given that the research literature on positive behavior and supports identifies engaging, rigorous instruction (with support for struggling students) as a “first line of defense” in preventing problem behavior.

## THE FOUR RECOMMENDATIONS

With these issues in mind, Learning Point Associates auditors developed the following four recommendations:

1. Develop and implement a common set of positive behavior expectations and a system for acknowledging and supporting appropriate behavior.
2. Develop and implement a schoolwide initiative focused on student engagement.
3. Identify job-embedded opportunities for teacher collaboration between special education and general education teachers that foster effective instructional practices schoolwide.
4. Ensure that rigorous instruction occurs in all classrooms and across all subject areas.

These four recommendations are discussed on the following pages. Each recommendation provides a review of research, online resources for additional information, specific actions that the school may wish to take during its implementation process, and examples of real-life schools that have successfully implemented strategies. All works cited, as well as suggestions for further reading, appear in the References section at the end of this report.

Please note that the order in which these recommendations are presented does not reflect a ranking or prioritization of the recommendations.

## Recommendation 1: Positive Behavior Management System

**Develop and implement a schoolwide positive behavior policy and system with clearly established standards for safety, discipline, and respect. The policy and related system should include concise social expectations and a continuum of supports, interventions, incentives/rewards, and consequences—including a clear delineation of activities and programs that students are entitled to rather than those activities that are privileges.**

### LINK TO RESEARCH

One of the greatest obstacles within urban schools is the large number of students whose behavior interferes with their achievement or the achievement of others. Often these students have behaved in a manner that disrupts the educational climate of the classroom and the school. One key element for changing this pattern is the implementation of a schoolwide behavior program that is developed with the input and support of parents and staff.

Effective schoolwide behavior programs have clearly established standards for safety, discipline, and respect. Students need a secure, orderly environment that promotes their personal well-being and supports learning. Rules should also be fair and stress students' responsibility to the school community, their parents, and themselves. All students in the school need to be aware of the rules, the reasons for the rules, and the consequences for breaking the rules. Effective discipline programs are based on praise and encouragement for positive behavior and clear, consistent consequences for misbehavior (Chicago Public Schools, Office of Specialized Services, 1998).

Effective schools build and maintain a positive "social culture." Successful students are safe (don't hurt themselves or others), respectful (follow adult requests and get along with their peers), and responsible (arrive to class on time and complete assignments). These foundational skills are essential for a safe and orderly school environment. In addition, members of a positive social culture use higher-order skills, such as (a) impulse control, (b) anger management, (c) conflict resolution, (d) empathy, and (e) drug and alcohol use resistance and prevention. Research studies consistently show that schools that establish a positive social culture also achieve the best academic gains (CalSTAT, 2011).

Positive behavioral interventions—when used correctly by teachers, administrators, and parents—encourage or strengthen desirable behavior and reduce inappropriate behavior. Positive interventions have a greater likelihood of enabling a student to change his or her behavior in a way that does not interrupt learning. Effective interventions encourage praise and recognition of positive behavior and demand clear and consistent responses to misbehavior. Children and youth tend to respond to positive techniques. In some cases, however, more restrictive interventions may be necessary to control and change extremely inappropriate and aggressive behavior (Chicago Public Schools, Office of Specialized Services, 1998).

Schoolwide positive behavioral support (SWPBS) is based on the research-based application of lessons learned from more than 7,000 schools currently implementing successful changes in their school environment. Schoolwide positive behavioral interventions and supports (SWPBIS) evolved from valid research in the field of special education. SWPBS is not a curriculum, intervention, or practice but a decision-making framework that guides selection,

### QUICK LINKS:

#### Online Sources for More Information

*School-Wide PBIS Implementation in High Schools: Current Practice and Future Directions* (Publication)

[http://www.pbis.org/school/high\\_school\\_pbis.aspx](http://www.pbis.org/school/high_school_pbis.aspx)

*Tiered Interventions in High Schools: Using Primary Lessons Learned to Guide Ongoing Discussion* (Publication)

[http://www.pbis.org/school/high\\_school\\_pbis.aspx](http://www.pbis.org/school/high_school_pbis.aspx)

*Alcott Middle School Behavior Expectations and Related Teaching Materials* (Video)

[http://www.pbis.org/swpbs\\_videos/alcott\\_mid.aspx](http://www.pbis.org/swpbs_videos/alcott_mid.aspx)

*"Discovering School-Wide PBS: Moving Towards a Positive Future" from Florida's Positive Behavior Support Project* (Video)

[http://www.pbis.org/swpbs\\_videos/pbs\\_video-discovering\\_swpbs.aspx](http://www.pbis.org/swpbs_videos/pbs_video-discovering_swpbs.aspx)

integration, and implementation of the best evidenced-based behavioral practices for improving important academic outcomes for all students (Office of Special Education Programs [OSEP] Technical Assistance Center on Positive Behavioral Interventions and Supports, 2011).

Researchers have only recently begun to study the effects of schoolwide behavioral management systems and what it takes to implement these systems effectively. Although it is too early to offer “recipes for success,” the work of key researchers and their school-based colleagues is providing some encouraging developments. These schools understand that change is incremental and are approaching implementation of their schoolwide systems slowly and over an extended time period. Although there are different variations of schoolwide systems of behavioral support, most systems have certain features in common. The emphasis is on consistency—both throughout the building and across classrooms. The entire school staff is expected to adopt strategies that will be uniformly implemented. As a result, approaches necessitate professional development and long-term commitment by the school leadership for this innovation to take hold.

### Common Features of Schoolwide Behavioral Management Systems

- Total staff commitment to managing behavior, whatever approach is taken.
- Clearly defined and communicated expectations and rules.
- Consequences and clearly stated procedures for correcting rule-breaking behaviors.
- An instructional component for teaching students self-control and/or social skill strategies.

Reprinted from *Schoolwide Behavioral Management Systems* by Mary K. Fitzsimmons, at <http://www.eric.ed.gov/PDFS/ED417515.pdf>. Published in 1998 as ERIC/OSEP Digest E563.

## IMPLEMENTATION CONSIDERATIONS

One of the guiding principles of positive behavior support systems is a concise set of agreed-upon behavioral expectations (see the third bullet under “1. Understand the guiding principles” on the following page). FDNY High School has a unique mission to expose students to the career opportunities within the New York City Fire Department. The New York City Fire Department holds a set of core values that could be translated into positive behavioral expectations for the school, thus deepening the connection to the Fire Department and authenticity of the expectations for students. At the secondary level, student involvement and opportunities for leadership are keys for fostering engagement. The school may consider engaging a group of students in the process of creating the positive behavior expectations and providing recommendations for introducing these expectations to the larger student body.

## **1. Understand the guiding principles of student behavior management.**

The OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports (2011) has established the following SWPBS guiding principles:

- “Develop a continuum of scientifically based behavior and academic interventions and supports.”

If not already established, a well-articulated schoolwide behavior policy/student code inclusive of positive expectations, minor and major infractions, and so forth, must first be in place. Clarity around expectations for staff’s handling of in-class behaviors is important in this situation. Authentic faculty feedback and participation are important throughout the policy and system development processes.

- “Use data to make decisions and solve problems.”

Data on both minor and major behavior incidents should be collected, tracked, analyzed, and utilized in decision making by the team and faculty on a monthly basis, at a minimum. Data should be presented in user-friendly format.

- “Arrange the environment to prevent the development and occurrence of problem behavior.”

This principle includes 3–5 positively stated overarching schoolwide social expectations that are posted prominently around the schools, particularly in problematic areas.

- “Teach and encourage prosocial skills and behaviors.”

Students should be introduced to or taught the schoolwide expectations, rules for specific settings, reward/consequence system, and related interventions/supports. Staff should be trained on how to present expectations to students. Ongoing communication and collaboration with families and the community are very important.

- “Implement evidenced-based behavioral practices with fidelity and accountability.”

Interventions should be multitiered, increasing in levels of intensity and inclusive of evidence-based programs or strategies. The primary level (all students) is the overall behavior management plan. The secondary level (some students) is for a targeted group or focused on individual plans for those who did not respond to the first level. The tertiary level (few students) includes highly individualized students who did not respond to the first two levels.

- “Screen universally and monitor student performance and progress continuously.”

There should be a plan for collecting data to evaluate SWPBS outcomes, wherein data are collected as scheduled and used to evaluate effectiveness for future adjustments.

## **2. Build a team.**

Florida’s Positive Behavior Support Project (2005) outlines a SWPBS process to provide a systematic structure and formalized procedures that can be implemented during the summer months. The initial steps should be to establish the program, encourage

all staff to buy in, and establish a schoolwide leadership team or behavior support team. The goal is not to develop yet another group but to fold SWPBS into the roles and responsibilities of an already established team. Members of the team should include administrators (i.e., principal, assistant principal, or dean), counselors, social workers, the regular education teacher, the special education teacher, a member with behavior expertise, and a coach/district representative. It is vital that the administration supports the process, takes as active a role as the rest of the team, and attends most meetings.

### **3. Determine school capacity.**

Other important points center around gauging and developing the school's individual and collective capacities to implement a comprehensive program. Related initial key questions include the following:

- What are the schoolwide social expectations, routines, and so forth?
- Who at the schoolwide level has the unique disposition necessary to both firmly hold students accountable *and* support them as they attempt to adjust with fidelity?
- What are the procedural expectations of teachers for managing in-class behaviors?
- What manageable recourse do teachers have for patterns of extremely disruptive and disrespectful instances of behavior “in the moment” (i.e., immediate referrals to a dean/counselor/administration, in-school “timeout room,” and so forth), and what are the criteria for reentry?
- What is a specific, realistic, and *manageable* continuum of interventions and supports?
- What is the specific, realistic, and *manageable* continuum of consequences for patterns of disruptive in-class behavior?
- How will the efficacy of chosen interventions and supports be intermittently monitored and adjusted as needed in a data-driven manner? Who is responsible for this monitoring?
- What are the mechanisms for notifying and collaborating with students' parents or guardians in the process early and often? Who is responsible for the communication (i.e., teachers, counselors, social workers, deans, or administrators)?
- What are the thresholds for more severe consequences/privilege losses for patterns or disruptive behaviors?
- What outside resources are available to support students and families struggling with issues that are affecting students' behavior but are well outside of the school's capacity to address?
- What privileges and incentives (i.e., extracurriculars, athletics, fieldtrips, social activities, and so forth) are currently in place that can serve as points of leverage? Do more privileges and incentives need to be identified?
- How are students who actively exhibit established desirable social behaviors formally recognized? Perhaps most importantly, how are those students who are actively attempting to make sustained social adjustments formally recognized and supported (without stigmatizing)?

## Positive Behavior Support in the Classroom

- The classroom is arranged to “minimize crowding and distraction.”
- The classroom has “explicit routines [and] directions” that are linked to schoolwide routines and direction.
- There are “3–5 positively stated expectations (or rules)” that are “posted, taught, and reinforced.”
- There are frequent acknowledgments of appropriate behaviors.
- Students have “multiple opportunities to respond and participate during instruction.”
- The teacher actively supervises class during instruction.
- Inappropriate behavior is ignored; instead, quick, direct, explicit reprimands/redirections are provided.
- Multiple strategies are in place to acknowledge appropriate behavior (points, praise) linked to schoolwide strategies.
- Specific feedback is given in response to social and academic errors and correct responses.

Adapted from *Classroom Management: Self-Assessment Revised* by Brandi Simonsen, Sarah Fairbanks, Amy Briesch, and George Sugai, available at [http://www.pbis.org/pbis\\_resource\\_detail\\_page.aspx?Type=4&PBIS\\_ResourceID=174](http://www.pbis.org/pbis_resource_detail_page.aspx?Type=4&PBIS_ResourceID=174)

## **Schoolwide Positive Behavior Support in an Urban High School: A Case Study**

A study to examine the impact of SWPBS was conducted by Chicago Public Schools during a three-year period. The implementation high school served an estimated 1,800 students during the first year of the study. The school served a diverse student body with the following racial and ethnic makeup: 36 percent African American, 36 percent Hispanic, 16 percent Asian American, 8 percent Caucasian, 2 percent Native American, and 2 percent other, with 21 percent demonstrating limited English proficiency (LEP). In addition, 89 percent qualified for free or reduced-price lunch, and 20 percent were identified as SWDs.

The results of the study revealed that it took about two years for the school to fully implement all components of the SWPBS plan. However, by the third year the average rate of daily discipline referrals had been reduced by 20 percent. Successful implementation strategies cited by the school included the following:

- Convening a “PBS team” with various stakeholders from the school (e.g., administrator, educator, parents, and students) for a day of training and to develop an action plan.
- Conducting a summer trial intervention with about 100 students during a summer activity to test teaching systems using positive behavior expectations.
- Providing teachers with key products such as sample copies of social skills lesson plans, posters reflecting schoolwide behavior expectations, and sample syllabi.
- Conducting grade-level assemblies to introduce rationales for the expected behavior and to provide opportunities to practice positive and negative examples of specific behaviors (i.e., respectful walking in the hallway).
- A system of rewards, including redeemable “acknowledgement” tickets that could be awarded to individual students for exhibiting positive behavior.
- Holding schoolwide celebrations that were contingent on the overall reduction of disciplinary referrals.

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Adapted from “School-wide Application of Positive Behavior Support in an Urban High School: A Case Study,” by Bohanon et al. (2006), *Journal of Positive Behavior Interventions*, 8(3), 131-145.

## Recommendation 2: Student Engagement

**Initiate a schoolwide process for increasing student engagement and creating a sustainable and supportive learning environment. The aim is to improve student attendance, enhance participation, reduce boredom, end negative behaviors and the associated classroom management issues, and increase student achievement in academic and social skills.**

### LINK TO RESEARCH

Student engagement provides an essential foundation for increasing achievement levels. “Educators must work to build engagement levels if they hope to support students in meeting higher standards” (Learning Point Associates, 2005, p. 2).

In a report on the 2009 High School Survey of Student Engagement (HSSSE), which was taken by 42,754 students, Yazzie-Mintz (2010, pp. 2–3) describes a spectrum of student disengagement—from temporary boredom to dropping out—and attributes this disengagement to the following: uninteresting and irrelevant material, work being too challenging or not challenging enough, no interaction with the teacher, not liking the school or the teacher, not seeing value in the assigned work, adults at the school not caring about the student, safety and bullying concerns, schoolwork not connecting to real world or real work, feeling little connection with any adult at the school, teacher favoritism, ineffective instruction or instructional methods, feeling unheard and not responded to or respected, and feelings of frustration and disconnection.

When students feel marginalized or alienated at school, they lose interest and become disengaged. Yazzie-Mintz (2010, p. 17) concludes that there are considerable gaps not only in academic achievement but also in student engagement. He suggests the integration of engagement data with academic data as a useful tool for school planning and decision making.

Factors that would increase student engagement, according to the surveyed students (Yazzie-Mintz, pp. 18–23) are as follows: supportive and nurturing schools; increased individualization; classes that are more fun as well as interactive, experiential, and relevant; a schoolwide belief in relationships, respect, and responsibility; coaching and modeling for the staff of good student engagement practices; reflection on and response to student ideas; adult understanding of student skills, strengths, and interests and having these qualities inform instruction; experiential learning and interdisciplinary studies; and opportunities for students to work together on finding solutions to real-world problems and issues.

Students need to build a sense of self-efficacy (Alvermann, 2003) in an inclusive environment in which they can achieve competence. They should be engaged in authentic and personally meaningful work, using a culturally relevant curriculum with an appropriate level of difficulty and challenge—one that requires problem solving (Voke, 2002). In addition, Gordon (2006) suggests the recognition and leveraging of individual student strengths and recalls a typical student response from the 2005 Gallup Youth Survey (pp. 77–80):

“My teacher understood the way that I learned and worked. I was never criticized for my ideas or feelings, but I was met with questions and ideas that could change the way I looked at something.” —Jessica, 17, Waverly, IA (p. 77)

### QUICK LINKS: Online Sources for More Information

Center for Mental Health in  
Schools (Website)

<http://smhp.psych.ucla.edu/>

Collaborative for Academic,  
Social, and Emotional  
Learning (Website)

<http://www.casel.org>

Illinois Learning Standards  
for Social/Emotional  
Learning (Website)

[http://isbe.state.il.us/ils/social\\_emotional/standards.htm](http://isbe.state.il.us/ils/social_emotional/standards.htm)

Morningside Center  
for Teaching Social  
Responsibility (Website)

<http://www.morningsidecenter.org>

A rubric titled the “Partnership Guide for Culturally Responsive Teaching” (Ginsberg & Wlodkowski, 2000, pp. 185–187) offers a list of engagement activities (establishing inclusion, developing a positive attitude, enhancing meaning and engendering competence) and assessment tools. The Executive Summary of *Engaging Schools* (Committee on Increasing High School Students’ Engagement and Motivation to Learn, 2003) provides 10 recommendations for reaching “the goals of meaningful engagement and genuine improvements in achievement” for high school students (pp. 4–9). Easton (2008) discusses engaging struggling high school students by using experiential learning, essential questions and a whole-child perspective in curriculum development, instructional strategies, professional development, and teacher evaluations. “If there is a secret to motivation in the classroom,” says Gordon (2006, p. 80), “it lies in the interaction between the teacher and the student.”

“There is a growing consensus that whatever else is done, schools must also become places where it is easier for students and teachers to know one another well and for students to connect to the school and its purposes, says Sergiovanni (2006. p. 58). “Schools in other words must be caring and learning communities.”

## **IMPLEMENTATION CONSIDERATIONS: WHOLE-SCHOOL PRACTICES**

Incorporating student engagement practices should be part of the annual school improvement process. Whole-school practices such as building a safe and supportive school environment are part of this process. Students can learn effectively only in environments in which they feel safe and supported and where their teachers have high expectations for their learning. Implementation of a schoolwide positive behavior plan that is based on pro-social values, social competencies, incentives, and positive peer relationships will lay the foundation for classroom-level work and must occur before the classroom work can begin.

The Victoria Department of Education and Early Child Development (2009) developed the following guidelines for implementation of effective student engagement strategies across whole schools at the building level:

### **1. Create a positive school culture.**

Teachers and staff must recognize students as individuals by acknowledging and celebrating the diversity of the student population. The school must find ways to connect students to school (through clubs, sports, student council, and other activities) so they develop a sense of belonging. The school should provide transition programs and practices at different stages of schooling that will minimize anxiety, increase resilience, and ensure that students develop a readiness to enter their new environment and make successful transitions between year levels.

### **2. Encourage student participation.**

Giving students a voice is not simply about the opportunity to communicate ideas and opinions; it also is about having the power to influence change. Incorporating meaningful involvement of the students means validating and authorizing them to represent their own ideas, opinions, knowledge, and experiences throughout education to improve the school.

### **3. Proactively engage with parents/caretakers.**

Keys to successful partnerships with parents/caretakers and families include strong two-way communication, volunteer opportunities, curricula-related collaborations, shared decision making, community-based partnerships, and efficacy building.

### **4. Implement preventative and early interventions.**

The school needs to determine how it will intervene when students exhibit disengaged behaviors—specifically poor attendance and antisocial behaviors. Prevention strategies should target the whole school and should be designed to reduce any risk factors that may contribute to attendance or behavioral issues.

### **5. Respond to individual students.**

The school should have a process in place to identify and respond to individual students who require additional assistance and support. It is imperative to coordinate early intervention and prevention strategies that utilize internal as well as external support services in order to identify and address the barriers to learning that individual students may be facing.

Schools also can implement major changes to their structures that can make it easier to develop positive learning relationships, including small learning communities, alternative scheduling, team teaching, teaching continuity, school-based enterprises, and professional learning communities.

## **IMPLEMENTATION CONSIDERATIONS: CLASSROOM PRACTICES**

Keeping adolescent students focused and engaged in the classroom is quite a challenge amid the entire complex changes—physical, intellectual, emotional, and social—that they experience during this phase of their lives (Caskey & Anfara, 2007).

### **1. Relate lessons to students' lives.**

A relevant curriculum relates content to the daily lives, concerns, experiences, and pertinent social issues of the learners. Teachers can gain insight into student concerns by taking periodic interest inventories, through informal conversations, and from classroom dialogue (Learning Point Associates, 2005). These issues and topics then can be incorporated into units, lesson plans, and further classroom discussions.

### **2. Make the learning authentic.**

Newmann et al. (1995) advocate for authentic instructional practices to engage learners and offer three criteria for authentic instructional practices: construction of knowledge, disciplined inquiry, and value beyond the school.

The first criterion for authentic instructional practices is to facilitate the construction of knowledge by acknowledging students' existing understanding and experience. Identifying students' preconceptions and initial understanding is critical to the learning process. "If students' preconceptions are not addressed directly, they often memorize

content (e.g., formulas in physics), yet still use their experience-based preconceptions to act in the world” (Donovan & Bransford, 2005, p. 5).

The second criterion for authentic instructional practices is to facilitate disciplined inquiry through structured activities; the inquiry process is critical to the construction of knowledge (Marzano, 2003; Newmann et al., 1995). This process consists of building on the learner’s prior knowledge to develop a deeper understanding, integrating new information, and using the knowledge in new ways.

The third criterion for authentic instructional practices is value beyond school (Newmann et al., 1995). This criterion may entail connecting content to personal or public issues as well as the demonstration of understanding to an audience beyond the school. Examples of such activities include writing persuasive letters to the city council to advocate for a skate park, interviewing community elders for an oral history project, or communicating the impact of a development project using scientific concepts.

### **3. Give students choices.**

Finally, providing choice in high school classrooms will engage learners. Providing opportunities for students to select a topic or text acknowledges young adolescents’ need to exercise more decision-making power. Giving students ownership in their learning process increases motivation and keeps interest levels high. Students who have a strong interest in a specific subject may wish to pursue an independent project. These projects may be used as a differentiated way to explore the curriculum. (See “Regard for Adolescent Perspectives in the Classroom” on the following page.)

## Regard for Adolescent Perspectives in the Classroom

Following are some suggestions for showing regard for adolescent perspectives. These ideas are based on the work of Smutny, Walker, and Meckstroth (1997) and Tomlinson (1997).

- Independent projects will extend learning beyond the curriculum in the textbook and develop enthusiasm, commitment, and academic skills in addition to allowing students to develop deeper relationships with subject matter.
- “Brainstorming with...children on what kinds of projects they could do may also generate ideas teachers may never have thought of on their own” (Smutny, 2000, p. 7).
- Surveying students’ interests in the beginning of the school year will give teachers direction in planning activities that will “get students on board” from the start.
- Surveying again at key points during the year will inform teachers of new interests that develop as their students grow.
- Interest centers are designed to motivate students’ exploration of topics in which they have a particular interest. They are usually comprised of objects that students can explore, such as shells, leaves, maps, or projects, and are centered around broad topics. Students can choose from the menu and note their choices accordingly. Teachers decide how many items on the menu (minimum) that each student is required to complete. This is adjusted to meet instructional needs on an individual basis.

## Examples of Student Engagement

The National Center for School Engagement (2007) compiled the following examples of student engagement best practices from school districts across the United States:

**Factor in Math Fun:** *In Oswego, New York, a Factoring Fan Club was created for ninth-grade math students to get them excited about factoring, to keep it fresh in their minds, and to be “good” at factoring.* Source: Oswego School District, Oswego, NY

**Celebrate Pi Day on 3/14:** *This event was created to help students enjoy math by offering a fun-filled day honoring pi. Events included a pie-eating contest, measuring the diameter and circumference of round objects to calculate pi, and other games related to circles.* Source: Independence School District, Independence, VA

**Mobilize Community:** *Community Now! is an asset-based community development tool of the Connection Institute. It uses asset-based language and planning to bring the community together to discover what values the community shares as a whole. It then works to mobilize community members around its assets and shares values to become proactive in its planning rather than reactive.* Source: Kittery Children’s Leadership Council, Kittery, ME

**Collaborate with Higher Education:** *In Mesquite, Texas, a local college delivers 3.5 hours of continuing education courses (“Educational Opportunities”) to truant students and their families. The curriculum includes the negative consequences associated with poor school attendance and the positive consequences associated with scholastic achievement. Discussion of transition from high school to college is discussed and a tour of the college is provided.* Source: Dallas Independent School District, TX

**Offer Incentives:** *As a reward, a lunchtime soccer game is organized for students with good attendance by school staff.* Source: Summit School District, Frisco, CO

**Support Positive Behavior:** *Jacksonville School District adapted the principles of Got Fish? (a book to build business morale) for the classroom. Principles include being there, play, choosing your behavior, and make their day. Students are recognized when observed “living” each of the principles.* Source: Jacksonville School District, Jacksonville, FL

**Create Student-Generated Classroom Rules:** *In Eugene, Oregon, students create a list of classroom rules to be followed. Each student signs off on the rules and is held accountable by fellow students. In addition, students developed their own “honor roll,” in which students are recognized for doing their best, following directions, and not talking out more than three times a day.* Source: Linn Benton Lincoln Education Service District, Eugene, OR

**Facilitate Positive Student-Teacher Connections:** *Some schools in Oregon encourage students to sign up for a one-on-one lunch with their teachers during school time. The teacher uses this time to get to know the students and offers them encouragement and praise. Children and youth benefit when their teachers demonstrate that they care about their well-being in addition to academic success.* Source: Linn Benton Lincoln Education Service District, Eugene, OR

Reprinted from *21 Ways to Engage Students in School*, available online at <http://www.schoolengagement.org/TruancyPreventionRegistry/Admin/Resources/Resources/21WaystoEngageStudentsinSchool.pdf>  
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## Recommendation 3: Collaboration Between General Education and Special Education Teachers

**The administration should support collaboration among teachers, including general education teachers and special education teachers, through common planning time and shared professional development. This collaboration will foster a partnership whereby all teachers work together to enable students to master grade-level objectives.**

### LINK TO RESEARCH

Many general education teachers have not received staff development in how to instruct students with a variety of learning styles and needs, nor are they typically aware of how to choose “scientifically validated curricula and academic programs that address at-risk students’ needs” (Fuchs et al., p. 58). However, special educators and other specialized instructors have more specific training on working with diverse learners and selecting valid instructional programs with integrity. Herein lies the need for collaboration.

Teacher collaboration is a type of job-embedded professional development. Collaboration among teachers and other school professionals may be defined as the manner in which, and extent to which, members of the school interact in their approach to their work, and is characterized by authentic interactions that are professional in nature (Marzano, 2003). These behaviors may include, but are not necessarily limited to, openly sharing failures and mistakes, demonstrating respect for one another, and constructively analyzing and criticizing practices and procedures in an effort to improve teaching and learning in a school (Hargreaves & Fullan, 1998). Marzano cites the need for a number of school norms that will enable teachers and other staff to effectively work to improve their schools, norms such as deciding how staff will resolve conflicts, how staff will address and solve professional problems, how staff will communicate to third parties about other staff members, and how staff will behave during professional meetings (e.g., staff meetings and professional development). Lambert (2003) identifies teachers who have a high degree of skill in this area as possessing a shared vision resulting in program coherence, inquiry-based use of data to inform decisions and practice, broad involvement, collaboration, and collective responsibility reflected in roles and actions, reflective practice that leads consistently to innovation, and high or steadily improving student achievement.

### IMPLEMENTATION CONSIDERATIONS

The overarching goal of this recommendation is to provide a rationale and suggested action steps for increased collaboration among general education and special education teachers at FDNY High School. There is a need to find times for teachers to meet, plan instruction, and discuss specific students and their needs.

Special education teachers can collaborate with their colleagues by assisting general educators in their planning for instruction (Murawski & Dieker, 2004). Planning for a class collaboratively allows special educators to have input in the lesson proactively, even if they might not be there physically (Murawski, 2005). This collaboration enables special educators to coach their general education counterparts on instructional strategies that can be used with a variety of students to enable them to access the general education curriculum effectively.

#### QUICK LINKS: Online Sources for More Information

K-8 Access Center (Website)  
<http://www.k8accesscenter.org>

TQ Connection (Website)  
<http://www.tqsource.org/connection/>

**1. Provide multiple avenues for structured teacher communication and feedback loops.**

- Find some shared planning time during the school day that will enable content-area teachers to share information with special education teachers about content to be covered and to share ideas that will benefit all students.
- Create an electronic mailing list or other electronic method for teachers to quickly relay information to one another.
- Introduce a system of easy communication among staff, so that teachers can note any concerns or issues related to specific students.
- Create a joint general education/special education team that plans together regularly to ensure coverage across content areas and pacing that benefits all students.
- Create feedback loops whereby teachers have the opportunity to voice at regular intervals what is working and not working for them in terms of formal collaborative opportunities and also to provide feedback on the other types of professional development they are learning that they may need as they continue to work together and learn from one another.

**2. Offer formal and regularly scheduled opportunities for collaboration around specific areas of need related to SWDs.**

- Conduct a data-driven needs assessment to determine topics for collaborative sessions (e.g., progress of students, differentiated instructional approaches, team teaching strategies). Be sure to include teacher input through informal surveys or opportunities to vote on needed topics.
- Train staff regarding effective communication and collaboration skills (e.g., active listening, establishing appropriate agendas, effective use of meeting time). Use reflective questions or protocols to guide collaborative discussions and ensure optimal use of collaborative meetings.
- Offer the sessions during times when general education and special education teachers are available to participate after school.
- Ensure that sessions are interactive and allow teachers opportunities to learn from one another.
- Provide opportunities for teachers to give feedback on the sessions so that adjustments can be made to better address the needs of students.
- Have an administrator participate to show the school's support for collaboration.

**3. Develop and implement effective professional learning communities using the following structures and steps:**

***Providing Sufficient Time***

- Provide sufficient time for teachers to discuss student learning needs and share, review, and provide feedback on instructional practices that address student learning needs. Embed these opportunities into the school's instructional calendar. For example, a school may build the schedule so that classroom or subject-area teachers are freed up by "specials" (e.g., music, art, physical education).

### ***Aligning Teacher Work With School Goals and Priorities***

- Teamwork should mirror and seek to enhance schoolwide student achievement goals and objectives. Agendas, activities, and outcomes are reflective of schoolwide priorities.
- Once collaboration time is identified and embedded into the school's instructional calendar, create a plan to address school improvement topics during collaboration time. Consider in which order school improvement needs and topics will be addressed. For example, if a school goal is to foster pro-social skills, collaboration time may be spent examining behavior and academic data to identify student strengths and weaknesses, sharing effective strategies for behavior with each other, or collaborative problem solving.

### ***Ensuring That Collaboration Is Data Driven***

- Use student performance data in collaborative groups. These data will be the focus with which to improve teaching and learning. Data can help identify areas of concern and aid the development of strategies and solutions.
- Create a schedule in which data analysis is embedded in collaborative time. The use of protocols can provide structure for the collection, review, and analysis.

### ***Structuring Time and Protocols***

- Structure collaboration time with clearly mapped goals, objectives, and accountability. Create a long-term plan, calendar, and schedule of topics and activities for common planning time.
- Establish guidelines related to the use of protocols. The use of a protocol can be a powerful tool in creating a formalized process for collaboration. It helps establish ground rules for participation, interactions, and potential distractions. The use of a discussion (or any other) protocol can help structure conversations by specifying how time will be allotted to achieve certain goals, such as presenting context, asking clarifying questions, providing and reflecting on feedback, brainstorming, or decision making. For example, protocols can provide structures for ways in which to examine student work, tune and align curricular documents, provide feedback on lesson plans and teaching, develop common assessments, and identify students for remediation.

### ***Providing Leadership and Support***

- Focus the work of collaborative groups by helping them align their priorities with achievement goals.
- Provide resources needed to support the work of collaborative teams.
- Allow teachers to hold the key leadership positions during collaboration time by facilitating group work. Identify subject-area chairpersons or grade team leads. Work with these teacher leaders to create goals, objectives, and structures for collaboration time.

## **Jacob Hiatt Magnet School**

Jacob Hiatt Magnet School, located in Worcester, Massachusetts, serves 456 students, with 71 percent of students eligible for free or reduced-price lunch. SWDs account for 15 percent of the student population, and ELLs account for 30 percent. The school has developed a model of teacher collaboration that includes a comprehensive set of meetings woven into teachers' schedules. Collaboration time is driven by student achievement data and is deeply focused on improving instruction.

Collaboration time is structured to support identified instructional foci with opportunities for teachers to meet in “vertical teams” and review student work and examine student-level data. Collaboration time includes regular and ongoing weekly and monthly grade-level team meetings and full staff meetings 2–3 times per month, after school. Teams receive guidance from the instructional leadership team and use protocols and other strategies to ensure optimal use of time. The principal, assistant principal, and specialist teachers provide coverage to allow teacher teams to have at least 60–90 minutes of uninterrupted collaboration time.

### **SCHOOLWIDE INSTRUCTIONAL FOCUS**

Teacher collaboration is intentional in its support of Hiatt's instructional focus on helping students read critically, interpret text, and answer questions completely and intelligently based on text.

### **THREE SCHOOLWIDE BEST PRACTICES**

Hiatt's school-wide instructional focus led to the identification and adoption of three best practices to be used by all Hiatt teachers in support of student learning: time dedicated to open response daily in every classroom, modeling, and use of T-charts. Teacher collaboration supports teachers in the refinement of these best practices.

### **USE OF DATA**

Data is routinely used to understand how student achievement is impacted by changes to instructional practice. This information is then used to inform Hiatt's continuous instructional improvement efforts.

### **ROUNDS [CLASSROOM VISITATIONS]**

Small groups of teachers collaborate to better understand the teaching-learning process within individual classrooms via prearranged “rounds” visits. Teachers participate as either “observers” or “host teachers” and the professional learning process is facilitated by well-defined roles for each participant, pre-round orientation meetings, and post-round opportunities for reflection and discussion.

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Reprinted from *The Effective Use of Teacher Collaboration Time to Advance Student Achievement. A Living Case Study*, by Massachusetts 2020 (2010).

## Recommendation 4: Instructional Rigor

**Implement instructional strategies that increase opportunities for higher-order thinking, analysis and problem solving, and deeper content understanding.**

### LINK TO RESEARCH

Instruction that pushes students to engage in higher-level thinking leads to deeper learning for students (Marzano Pickering, & Pollock, 2001; Newmann, Bryk, & Nagaoka, 2001; Pashler et al., 2007). Too often, particularly in schools where students are struggling, instruction focuses on lower-level thinking skills, basic content, and test preparation. Teachers of struggling student groups or tracks usually offer students “less exciting instruction, less emphasis on meaning and conceptualization, and more rote drill and practice activities” than do teachers of high-performing or heterogeneous groups and classes (Cotton, 1989, p. 8). Yet this focus on basic skills does not necessarily improve student achievement.

Several research studies were completed from 1990 to 2003 “which demonstrated that students who experienced higher levels of authentic instruction and assessment showed higher achievement than students who experienced lower levels of authentic instruction and assessment” (Newmann, King, & Carmichael, 2007, p. vii). These results included higher achievement on standardized tests (Newmann et al., 2001). It is also important to note that these results “were consistent for Grades 3–12, across different subject areas (mathematics, social studies, language arts, science), and for different students regardless of race, gender, or socioeconomic status” (Newmann et al., 2007, p. vii).

Teachers need to provide structured opportunities and time for students to take on higher-level cognitive work (Tomlinson, 2003). In discussing the *gradual release of responsibility model*, Fisher and Frey (2008) state that “the cognitive load should shift slowly and purposefully from teacher-as-model, to joint responsibility, to independent practice and application by the learner” (p. 2). This process allows students to become what Graves and Fitzgerald (2003) call “competent, independent learners” (p. 98).

There are several steps to ensure that students are being asked to complete this type of intellectually challenging work, which increases test scores and improves performance on authentic assessment measures as well. Newmann et al. (2001) define *authentically challenging intellectual work* as the “construction of knowledge, through the use of disciplined inquiry, to produce discourse, products, or performances that have value beyond school” (p. 14). Daggett (2005) agrees, stating that all students should be pushed “to achieve academic excellence, which ultimately boils down to applying rigorous knowledge to unpredictable, real-world situations, such as those that drive our rapidly changing world” (p. 5). Disciplined inquiry, which occurs in the classroom, requires that students “(1) use a prior knowledge base; (2) strive for in-depth understanding rather than superficial awareness; and (3) express their ideas and findings with elaborated communication” (Newmann et al., 2001, p. 15).

### QUICK LINKS: Online Sources for More Information

Doing What Works: Providing  
Research-Based Education  
Practices Online (Website)

<http://dww.ed.gov/>

*Organizing Instruction and  
Study to Improve Learning*  
(Publication)

[http://ies.ed.gov/  
ncee/wwc/pdf/  
practiceguides/20072004.  
pdf](http://ies.ed.gov/ncee/wwc/pdf/practiceguides/20072004.pdf)

## IMPLEMENTATION CONSIDERATIONS

### 1. Cultivate schoolwide high expectations for students.

- Align instruction with the New York State P–12 Common Core Learning Standards. According to NYCDOE (2011), schools in New York City are set to have fully adopted the P–12 Common Core Learning Standards for students to take aligned assessments during the 2014–15 school year. These standards are internationally benchmarked and rigorous; they clearly explain what students at each grade level are expected to know and be able to do. Some schools were involved in pilot programs in 2010–11.
- Develop a shared understanding of instructional rigor through collaborative curriculum planning, design, and/or redesign. When developing or revising curriculum maps, identify opportunities for formative assessment tasks that encourage higher-level thinking for each unit of study.
- Through teacher collaboration, develop common student assignments that ask students to perform rigorous and authentic tasks.
- Through teacher collaboration, develop common student assessments that include rigorous and authentic summative assessment tasks.
- Monitor implementation of expectations through classroom observations, lesson plan review, and student achievement results on common formative assessments.

### 2. Provide professional development for teachers on instructional strategies that push students to engage in higher-order thinking.

- Provide for teachers ongoing professional development that describes the importance of pushing students to do higher-level thinking and provides strategies for how to do so. This training may be provided through ongoing professional development sessions and/or support of an instructional coach.
- Create clear expectations regarding how teachers should implement this professional development in the classroom (e.g., one strategy utilized each day as reflected in lesson plans, authentic assessments at the end of each unit).
- Identify how this professional development can be incorporated into scheduled teacher collaboration sessions.
- Monitor implementation of professional development through classroom observations, lesson plan review, and student achievement results on common formative assessments.

### 3. Develop examples of authentic intellectual work.

The following example can be used to help school leaders and teachers understand what authentic intellectual work might look like.

## Examples of High-Scoring and Low-Scoring Measures of Authentic Intellectual Work

The research report *Improving Chicago's Schools: Authentic Intellectual Work and Standardized Tests: Conflict or Coexistence?* by Newmann, Bryk, and Nagaoka (2001) provides examples of two sixth-grade writing assignments: one that scored high and one that scored low on measures of authentic intellectual work. The authors conclude each example with a commentary of why the assignment received the score that it did.

### High Scoring Writing Assignment

Write a paper persuading someone to do something. Pick any topic that you feel strongly about, convince the reader to agree with your belief, and convince the reader to take a specific action on this belief.

### Commentary

*In this high scoring assignment, demands for construction of knowledge are evident because students have to select information and organize it into convincing arguments. By asking students to convince others to believe and act in a certain way, the task entails strong demands that the students support their views with reasons or other evidence, which calls for elaborated written communication. Finally, the intellectual challenge is connected to students' lives because they are to write on something they consider to be personally important.*

### Low Scoring Writing Assignment

Identify the parts of speech of each underlined word below. All eight parts of speech—nouns, pronouns, verbs, adjectives, adverbs, prepositions, conjunctions, and interjections—are included in this exercise.

1. My room is arranged for comfort and efficiency.
2. As you enter, you will find a wooden table on the left.
3. I write and type.
4. There is a book shelf near the table.
5. On this book shelf, I keep both my pencils and paper supplies.
6. I spend many hours in this room.
7. I often read or write there during the evening....

### Commentary

*This assignment requires no construction of knowledge or elaborated communication, and does not pose a question or problem clearly connected to students' lives. Instead it asks students to recall one-word responses, based on memorization or definitions of parts of speech.*

Reprinted from page 24 of *Improving Chicago's Schools: Authentic Intellectual Work and Standardized Tests: Conflict or Coexistence?* by Fred M. Newmann, Anthony S. Bryk, and Jenny K. Nagaoka, available online at <http://ccsr.uchicago.edu/publications/p0a02.pdf>. Copyright © 2001 Consortium on Chicago School Research. Reprinted with permission.

Further examples of authentic intellectual instruction, teachers' assignments, and student work can be found in the following source:

Newmann, F. M., King, M. B., & Carmichael, D. L. (2007). *Authentic instruction and assessment: Common standards for rigor and relevance in teaching academic subjects*. Des Moines, IA: Iowa Department of Education. Retrieved June 24, 2011, from <http://centerforaiw.com/sites/centerforaiw.com/files/Authentic-Instruction-Assessment-BlueBook.pdf>

## **Perrysburg High School**

**Perrysburg High School in Perrysburg, Ohio, serves students in Grades 9–12. Perrysburg is a suburb of Toledo.**

Perrysburg is the sole high school in the Perrysburg Exempted Village District in Wood County. Nate Ash teaches physics to eleventh and twelfth graders. Ash has taught professional development programs at the Northwest Ohio Center of Excellence in Science and Mathematics Education, and at Bowling Green State University in Ohio. He acts as a mentor to new science teachers.

Ash teaches physics using an inquiry approach. Students do lab activities and solve problems together to understand key concepts in physics. In each lesson he poses higher-order questions to help his students build explanations: How do you know that? What would happen if we changed this variable? How is this similar or different? Ash uses whiteboards in a number of ways: for group problem solving, representing a phenomenon with pictures, and student presentations.

Each new unit/topic is introduced with a hands-on activity. Ash presents a physical situation to students, has them manipulate the variables, and then narrows down their list of variables to design an experiment. Every experiment is introduced with an open-ended question (What would happen if...? What happens when...?). Students work in small groups to describe what happens with graphs, pictures, mathematical equations, and written expression. When they are finished, students present their work to the class in “whiteboard sessions.”

Ash explains how the whiteboard sessions give important insights into student thinking: “We can really see if the students understand on every different level how that problem works or how that situation works. And if there is a disjoint between any of those representations, that gives us someplace to go, that gives us something to talk about, something to work through.”

Students appreciate being in charge of their own learning, having the opportunity to challenge their peers, and develop critical thinking skills as they explain their ideas in front of a group. As Ash says, “Students really like this approach because, instead of just giving them the answer, it gives them a chance to explain to each other what’s going on. And I like it because all the times that I have done physics problems on the board and gone through the answers, I got pretty good at doing physics problems but my students never got any better at all.”

Ash has found that with this approach his students are no longer trying to find equations that fit the problems, but working to develop a deep understanding of the underlying concepts.

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Excerpted from the *Doing What Works* website at [http://dww.ed.gov/media/CL/OIS/TopicLevel/case\\_perrysburg\\_52708rev.pdf](http://dww.ed.gov/media/CL/OIS/TopicLevel/case_perrysburg_52708rev.pdf)

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