

Providing Urban Learners Success in Education (P.U.L.S.E.) High School

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 Providing Urban Learners Success in Education (P.U.L.S.E.) by Learning Point Associates, an affiliate of American Institutes for Research. This audit was conducted in response to the school being identified as in corrective action 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 P.U.L.S.E. High School

Located in the South Bronx, P.U.L.S.E. High School (X319) serves 208 students in traditional Grades 9–12. Approximately 37 percent of the students are Black, 62 percent Hispanic, 1 percent White, and 0 percent Asian students. The student body includes 6 percent English language learners and 16 percent special education students (Special Education Service Delivery Report). Boys make up 42.71 percent of the population, and 57.29 percent are girls. The average attendance rate for the 2009–10 school year was 66 percent. A large percentage (82 percent) of the student population is eligible for free lunch, and 4 percent students are eligible for reduced-price lunch.¹

P.U.L.S.E. High School is one of New York City's ungraded transfer schools serving a population of students who often enter over-age and under-credited. The school's mission is to offer a student-centered curriculum that will inspire a passion for learning through competency-based instruction and assessment via a new system of learning, which seeks to turn core subjects into challenging real world projects and problems. Given its unique role as transfer school, the school's administration considers all of its students at-risk.

According to the 2009–2010 New York State School Report Card, P.U.L.S.E. is in corrective action year 1, due to not making adequate yearly progress (AYP) in English language arts (ELA) for all students, Hispanic/Latino students, and economically disadvantaged students. During that year, P.U.L.S.E. also did not make AYP in mathematics and its graduation rate; nevertheless, the school is in good standing for math and science.

P.U.L.S.E.'s 2010–2011 Comprehensive Education Plan (CEP) outlines three annual goals for the academic year: improve ELA Regents achievement, increase students' participation in college readiness activities, and increase its attendance rate. The school currently employs a block schedule comprised of four 80-minute periods, attempts to keep class sizes small, and differentiate as much as possible in efforts to boost individual and collective achievement. Students also have access to teachers and academic support in all four core academic subject areas before school, during advisory periods, and during PM school. P.U.L.S.E. counts

¹Accountability and Overview Report 2009–2010, retrieved from <https://www.nystart.gov/publicweb-rc/2010/de/AOR-2010-321000011319.pdf>

as its recent key partners Wildcat Services Corporation (Learning to Work partner), Bronx Community College, The Theatre Development Fund, Teaching Matters, Inc., and the Each One Teach One Youth Leadership Training Program, among others.

Audit Process at P.U.L.S.E. High School

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 P.U.L.S.E., during the month of March 2011. From these data, Learning Point Associates has prepared a series of reports for the school's use.

These reports were presented to the school during a co-interpretationSM meeting, held on May 4, 2011. During this meeting, 11 stakeholders from the P.U.L.S.E. community read the reports, and through a facilitated and collaborative group process, 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 has developed in response. Additional key findings that came out of the external curriculum audit process are included as well. 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 we have recommended those strategies that we believe are most likely to have the greatest positive impact on student performance at P.U.L.S.E. High School.

Key Findings

After considerable thought and discussion, co-interpretation participants determined a set of key findings. These key findings are detailed in this section. The wording of the key findings below reflects the wording developed and agreed upon by co-interpretation participants at the meeting.

Critical Key Findings

CRITICAL KEY FINDING 1:

According to interviews and document review, funding cuts have eliminated electives and Campus Friday programs.

Participants developed this key finding based on document review and interview data, indicating that students are provided limited enrichment, leadership, and elective course opportunities, reportedly due to a lack of funding. Specifically, P.U.L.S.E's popular "Campus Friday" partnership with Bronx Community College was discontinued due to budget cuts. This program afforded students and faculty opportunities to engage in a number of collaborative enrichment, and extension postsecondary activities with the institution.

CRITICAL KEY FINDING 2:

According to observation and teacher surveys, students are moderately engaged in classroom activities, as shown by respectful class discussions and positive teacher-student and student-teacher interactions.

Participants developed this key finding based on observation and survey data, indicating that there was moderate student engagement in 66.7 percent of observed classrooms, and 64 percent of teachers reported that students often or always act respectfully during class discussions. Given the low attendance rate at this school, increasing student engagement is an area that could have positive impacts on attendance and achievement.

CRITICAL KEY FINDING 3:

According to observation and teacher surveys, students have limited opportunities for fieldwork and to create portfolios, which provide opportunities for classroom leadership and to relate lessons to their lives.

Participants developed this key finding based on observation and survey data indicating that there were few options for students to take leadership roles in 4 of 15 observed classrooms, and 50 percent or more teachers responded that students never work on portfolios and never participate in fieldwork. (There was a fair amount of discussion around a lack clarity on the meaning of "fieldwork" among teacher-respondents.) These types of activities can also contribute to increased student engagement.

Positive Key Findings

POSITIVE KEY FINDING 1:

The school has a variety of academic supports in place to address student academic needs and transitions to postsecondary opportunities.

Participants developed this key finding based on document and survey data indicating that the school has some components in place to address students' academic deficiencies (i.e., 80-minute period block schedule, advisory, PM school, Saturday school) and post-secondary transitions (i.e., community-based organization [CBO] partnerships, Senior Student Performance Review tracking sheets, Scholastic Aptitude Test [SAT] prep, City University of New York [CUNY] application fee payment). Survey respondents also indicated that teachers are likely to share concerns about students needing additional academic support with colleagues and with administration (100 percent), and that the school is likely or very likely to provide students with support soon after needs are identified (80-90 percent). Information was not collected regarding the effectiveness of these supports.

POSITIVE KEY FINDING 2:

Survey and observation data indicate that in the high-range classrooms, teachers are consistently communicating key content area concepts through modeling, scaffolding, and dialogue. Multiple examples are provided and students shared their perspectives.

Participants developed this key finding based on observation and survey data indicating that in mid- and high-range rated classrooms (93 percent of total classrooms observed), teachers provided students with opportunities to make connections or to determine new applications for the principles of a lesson in a challenging way. Relevant observation data also indicated that teachers in mid-range classrooms (10 of 15 total) made efforts to identify key concepts and procedures by modeling the conditions for appropriate lesson content. The majority of observed classrooms showed that teachers were consistently and actively engaged in responding to students' questions, scaffolding, learning, and affirming work.

POSITIVE KEY FINDING 3:

The school successfully assesses the needs of incoming students and places them according to their needs. While there seems to be no formal system of data management in place, document review and interview data indicates the presence of in-house methods for tracking student progress.

Participants developed this key finding based on document review and interview data indicating that the school reviews new students' transcripts and IEPs to assess the courses and supports needed to pass Regents exams. Data also indicated that while the school does not have a standard data management system, in-house methods are used to monitor student progress (i.e., progression sheets and senior performance review sheets).

Additional Key Findings

Additional key findings are important findings that come out of the external curriculum audit process but are not identified as priorities through the co-interpretation process. At times, auditors identify critical findings that are not identified by co-interpretation participants but are nevertheless considered essential to the school's continuous growth and improvement.

ADDITIONAL KEY FINDING 1:

Interviews, document reviews, and surveys indicate that there is no formal, cohesive student data collection, tracking, analysis, and utilization system currently in place.

Auditors developed this key finding based on document, interview, and survey data indicating that there is no formal, cohesive student data management system in place. Document review and interview data did not provide indications of a formal, cohesive student data management and utilization system being in place. Although student files were reportedly available in the guidance office and other documents were utilized to help students chart their course toward graduation, evidence of the systemic collection, tracking, analysis and utilization of student-specific achievement data was not presented. Moreover, teachers were divided when asked how often they referred to data from standardized tests when lesson planning (72.8 percent of teacher respondents reported never or only a few times, and 27.3 percent reported 1-2 times per week or almost daily). Similarly, teacher respondents reported that formative, periodic assessment data rarely informs instruction (never or almost never, 63.6 percent; or a few times a semester, 18.2 percent). Conversely, 70 percent of teachers report that classroom- and teacher-created assessments inform instruction 1-2 times per week or almost daily.

ADDITIONAL KEY FINDING 2:

Teacher survey and observation data indicate that students have limited opportunities to use higher-order thinking skills in the classroom.

Auditors developed this key finding based on observation and survey data indicating that an overall rating of 3.6 to 3.7 for observed classrooms put them in the lower mid-range for this indicator. The low rating was partially attributed to limited opportunities for students to analyze, synthesize, or evaluate information or related work products. Observations also evidenced some instruction that focused more on leading students to the right answer than engaging them in higher order thinking, with 3 out of 15 observed classrooms receiving ratings in the lowest range. Additionally, related survey data indicated that 27 percent of respondents reported that their students take part in answering textbook or worksheet questions daily or almost daily, and over half of respondents indicated that their students never work on portfolios or participate in fieldwork.

Recommendations

Overview of Recommendations

During the P.U.L.S.E. High School co-interpretation, participants discussed a number of topics related to student engagement, students' roles in their own learning, as well as formal and informal processes for data collection, tracking, analysis, and utilization, among others. Much of the conversation focused on the school's unique charge and the positive activities currently in place at the school. In addition, the school team focused on the many outside factors that limit the schools ability for greater success.

THE FOUR RECOMMENDATIONS

Based on the data presented, as well as research and best practices in similar schools, Learning Point Associates has developed the following four recommendations:

1. Develop and implement specific instructional strategies that increase opportunities for students to take on classroom leadership roles and make relevant connections between curricula and students' lives.
2. Implement instructional strategies that increase opportunities for higher-order thinking, analysis and problem solving, and deeper content understanding.
3. Implement a schoolwide initiative for increasing student engagement and creating a sustainable and supportive learning environment. The aim is to improve student attendance, enhance participation, reduce boredom, and increase student achievement in academic and social skills.
4. Develop, implement, and utilize a more formal, cohesive student data collection, tracking, and analysis system that is focused on planning and delivering instruction for improved academic outcomes.

For each recommendation, additional information is provided in the narrative on specific actions that the school may consider during its action-planning process, as well as real-life implementation examples and research resources for further reading.

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

Recommendation 1: Student Voice, Choice, Autonomy, and Leadership

Develop and implement specific instructional strategies that increase opportunities for students to take on classroom leadership roles and make relevant connections between curricula and students' lives.

LINK TO RESEARCH

Empirical research has demonstrated that supporting student choice, autonomy, and leadership in the classroom can train students to regulate their own learning, deepen their cognitive processes, and improve academic achievement. Efforts to foster supportive autonomy consist of establishing a link between a student's classroom behavior and the resources that motivate the student to succeed, such as personal interests, goals, and values (Reeve, 2010). This approach inherently involves students in their own learning process by creating a direct link between their personal motivations and classroom activities.

Autonomy-supportive instructional strategies have been shown to improve student engagement, conceptual understanding, academic achievement, and persistence in the classroom (Young, 2005). The goal of these strategies is to encourage students to engage in self-regulated learning, which involves students interpreting learning tasks, determining goals, and implementing strategies to meet goals (Young, 2005). Creating an autonomy-supportive classroom environment requires teachers to incorporate students' preferences, choices, curiosity, and challenges into lessons (Reeve, Jang, Carrell, Barch, & Jeon, 2004). Additional approaches include allocating time in a way that allows students to work in their own way, scaffolding student learning, engaging in feedback loops with students, and offering praise and encouragement to students (Young, 2005).

Enhancing student autonomy through autonomy-supportive strategies and lesson content that has relevance to adolescent lives allows students to align their inner motivational resources, classroom behavior, and academic achievement (Assor, Kaplan, & Roth, 2002; Stefanou, Perencevich, DiCintio, & Turner, 2004; Young, 2005). This strategy encourages students to understand schoolwork in the context of their own interests and goals, which has the potential to help students to develop self-regulation skills and learning strategies to facilitate their academic and professional success.

Adolescence represents a critical period during which youths struggle to take on new responsibilities and learn decision-making skills while concurrently establishing a sense of self and identity. This period also marks a stage where adolescents are learning to regulate their behavior and cognitive abilities, which can be facilitated by incorporating autonomy-supportive strategies in the classroom (Zimmer-Gembeck & Collins, 2003).

Although P.U.L.S.E. is a transfer school, it still needs to continue to develop students' capacity to regulate their behavior and cognitive abilities as they move toward postsecondary education and the workforce. This is especially pertinent, given P.U.L.S.E.'s unique student population and the school's earnest focus on career and technical education partnerships, which require students to thrive in professional work environments.

QUICK LINKS: Online Sources for More Information

Collaborative for Academic,
Social and Emotional
Learning (Website)
<http://casel.org/>

Self Determination Theory
(Website)
<http://www.sustainengagement.com/>

*Classroom Observation:
Student Autonomy* (Online
video)
http://www1.teachertube.com/viewVideo.php?title=Classroom_Observation__Student_Autonomy&video_id=185325

The key to developing and implementing an autonomy-supportive classroom is to become familiar with the strategies that either encourage or inhibit student voice, choice, autonomy, and leadership. Table 1 provides an overview of the features and aspects that characterize an autonomy-supportive motivating instructional style versus a controlling motivating style.

Table 1. Defining Features of Two Types of Motivating Styles: Autonomy Supportive and Controlling

Autonomy Supportive Motivating Style	Controlling Motivating Style
<p>Definition: A teaching style that involves understanding and valuing the student’s perspective during instruction</p>	<p>Definition: A teaching style that involves a teacher-centered approach to developing a class agenda and encouraging student compliance with the agenda</p>
<p><i>Key Features</i></p> <ul style="list-style-type: none"> ■ Encourages a student’s personal motivational resources ■ Incorporates noncontrolling instructional language ■ Promotes worth ■ Acknowledges and accepts negative expressions and attitude 	<p><i>Key Features</i></p> <ul style="list-style-type: none"> ■ Dependent on external motivational sources ■ Utilizes language that is more controlling and pressuring ■ Assertive
<p><small>Adapted from <i>Anatomy Support</i> by Johnmarshall Reeve (n.d.), available online at http://www.education.com/reference/article/autonomy-support/.</small></p>	

IMPLEMENTATION CONSIDERATIONS

Specifically, teachers can take the following actions to promote student autonomy in the classroom:

1. Foster relevance.

Teachers should make an overt effort to incorporate their students’ interests, values, and goals into the learning process by learning about student concerns through informal and classroom dialogue (Learning Point Associates, 2005). Examples include communicating with the students regarding their feedback about classroom tasks and trying to help students understand how a task contributes to their personal objectives (Assor et al., 2002). Research has indicated that students are more likely to be cognitively engaged and use higher-order thinking skills when they find the subject matter interesting (Young, 2005).

2. Make learning authentic.

Instructional practice should build upon students’ foundational knowledge (i.e., background, ideas, skills, and attitudes), challenge students, and also connect content to value beyond the classroom (Donovan & Bransford, 2005; Newmann, Marks, & Gamoran, 1995). Teachers should give assignments that have public or personal value

to students (such as oral history projects or writing editorials for the local newspaper) and also are academically rigorous (Newmann et al., 1995).

3. Provide choice.

Teacher behavior should enable students to choose classroom activities and tasks that are consistent with their interests and goals. Providing students with the opportunity to understand how schoolwork can contribute to their personal goals increases their ability to work more autonomously (Assor et al., 2002). In addition, asking students for input on classroom activities allows teachers to become more aware of students' psychological needs and to incorporate those needs into the lesson (Reeve, 2010).

4. Promote independent thinking and permit student criticism.

Encouraging students to engage in independent thinking and criticizing lessons that they do not find interesting can provide teachers with opportunities to foster more in-depth conversations about classroom activities. These discussions may allow the teacher to make adjustments to lessons to increase student interest or engage in a dialogue with students about the importance of the task to make them value the assignment (Young, 2005). The overall goal of this strategy would be to increase the opportunities for student voice in the classroom and promote mutual communication between teachers and students regarding lesson content.

5. Be aware of how teacher behaviors can *inhibit* student voice, choice, leadership, and autonomy. Work to eliminate the following behaviors:

- **Micromanaging student work and behavior.** Teachers should avoid unnecessary intrusions related to how students approach their work. Such intrusions inhibit student expression. Students should have the opportunity to discover their natural working patterns in the context of classroom activities (Young, 2005).
- **Assigning tasks that lack relevance and interest to adolescents.** Students are less likely to be responsive to tasks that they do not find interesting or important. Thus, teachers should make an effort to communicate the importance of tasks that they assign and incorporate elements that are relevant to adolescent lives (Reeve, 2009; Young, 2005).
- **Forbidding student criticism and stifling independent thinking.** Teacher behavior that undermines student voice has the potential to inhibit students' ability to conduct self-regulated learning and self-expression. Inhibiting students' ability to express their opinions can be frustrating and interferes with their ability to make connections between classroom activities and their personal interests and goals.

Autonomy-Inducing and Autonomy-Suppressing Teacher Behaviors

Autonomy-Inducing Teacher Behaviors:

- Listening
- Integrating independent work sessions
- Facilitating peer-to-peer conversations
- Praising and encouraging evidence of improvement or mastery
- Scaffolding
- Creating a responsive environment that supports student questions and comments
- Incorporating student perspective and experiences

Autonomy-Suppressing Teacher Behaviors:

- Dominating learning materials
- Solving problems or answering questions before students have had a chance to work on them independently
- Directive rather than reciprocal feedback
- Interrupting student comments

Seacrest High School

Seacrest High teachers and administrators decided that a critical step in understanding why students were not successful was to ask the failing students themselves. Students who had received failing grades in three or more subjects were invited to participate in a focus group, led by a senior teacher of the school. The students were encouraged to speak openly and honestly about how teachers could make schools a better place to learn. In addition to working with students, the students' teachers were asked to complete a survey about why they believed the students were failing. Following the initial focus group, Seacrest High continued to supply opportunities for students to have a voice by holding eight more focus groups during the year of the project.

OUTCOMES

The major outcome of the Seacrest High School project was the clarity it provided for teachers with regard to what was affecting student success. Students taking part in the focus groups spoke about different learning styles, the need for additional counseling and tutoring, and having a sense of mutual respect between teachers and students. Teachers talked about the students' lack of motivation (30 percent) and attendance (16.5 percent).

Students of all backgrounds and academic abilities were able to point to aspects of school structure and teaching that they believed contributed to their, or their classmates', failure, while teachers indicated that the students were to blame for their own failure. Looking at the problem from different perspectives shifted the focus from teachers and students blaming each other to teachers and students working together to improve teaching and learning. At the conclusion of the project, students reported an increased sense of engagement with their school and teachers were provided with specific issues to target in the upcoming year.

From "Student Voice: A Historical Perspective and New Directions." Available online at http://ed-web3.educ.msu.edu/outreach/k12out/pdf/2010/Student_Voice_report.pdf

Recommendation 2: 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 challenged “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://ready.ccr.mcgraw-hill.com/2011/07/26/doing-what-works-a-research-based-education-practices-online-report/>

Organizing Instruction and Study to Improve Learning (Publication)

<http://ies.ed.gov/ncee/wwc/pdf/practiceguides/20072004.pdf>

IMPLEMENTATION CONSIDERATIONS

1. Continue to cultivate schoolwide high expectations for students.

- Align instruction with the New York State P–12 Common Core Learning Standards. According to NYCDOE (2011b), schools in New York City are set to fully adopt 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 challenge students to engage in higher-order thinking.

- Provide ongoing professional development for teachers to describe the importance of inspiring students to think on a higher level and provide strategies for achieving this. This training may be provided through ongoing professional development sessions and/or support of an instructional coach.
- Create clear expectations for teachers to 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 methods to incorporate this professional development 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. Expand the development of 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?* 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 Newmann et al. (2007).

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.

Description excerpted from the Doing What Works Website at http://dww.ed.gov/media/CL/OIS/TopicLevel/case_perrysburg_52708rev.pdf. This information is in the public domain.

Recommendation 3: Student Engagement

Implement a schoolwide initiative for increasing student engagement and creating a sustainable and supportive learning environment. The aim is to improve student attendance, enhance participation, reduce boredom, 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).

Literature about middle school reform acknowledges the importance of an academically challenging and supportive environment to engage young adolescent learners. Student motivation, a meaningful curriculum, and student choice also are important factors for engaging middle-level learners (Caskey & Anfara, 2007; Learning Point Associates, 2005; Newmann, Marks, & Gamoran, 1995).

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 and suggests the integration of engagement data with academic data as a useful tool for school planning and decision making.

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

Morningside Center
for Teaching Social
Responsibility (Website)

<http://www.morningsidecenter.org>

Factors that would increase student engagement, according to the surveyed students (Yazzie-Mintz, 2010, 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)

A rubric titled the “Partnership Guide for Culturally Responsive Teaching” (Ginsberg & Wlodkowski, 2000, pp. 185–187) offers a list of engagement activities (e.g., 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 (2000, p. 58). “Schools in other words must be caring and learning communities.”

IMPLEMENTATION CONSIDERATIONS: WHOLE-SCHOOL PRACTICES

Given P.U.L.S.E.'s unique charge, increasing student engagement should have immediate positive effects on attendance, individual and collective academic achievement and social growth, as well as postsecondary and career opportunities for its students. Put simply, more consistently engaged students are more likely to attend school on a more consistent basis. This sets the stage for higher levels of authentic learning and boosts in individual and collective measurable achievement. Improved academic outcomes can only increase the breadth of postsecondary and career opportunities for students and increase the likelihood of their resilience and success.

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. Implementing a school-wide 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 following guidelines were developed by the Victoria Department of Education and Early Child Development (2009) for implementation of effective student engagement strategies across whole schools at the building level:

1. Build upon the school's 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, 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 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.

P.U.L.S.E. High School needs to determine how it will intervene when students exhibit disengaged behaviors—specifically poor attendance and anti-social 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.

P.U.L.S.E. High School should put 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 students focused and engaged in the classroom is an enormous challenge amid the entire complex changes—physical, intellectual, emotional, and social—that they experience during this phase of their lives. The teenage years represent a critical formative period: youth struggle to take on new responsibilities and learn decision-making skills, while concurrently establishing a sense of self and identity. This period also marks a stage where adolescents are learning to regulate their behavior, which can present a challenge to keeping them on-task in the classroom (Zimmer-Gembeck and Collins, 2003).

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.

Potential Quick Win: Analyze available job placement data from past graduates and survey present students on their career interest in efforts to identify relevant knowledge and skills directly or indirectly aligned with state standards. As a next step, make these connections explicit to students, in order to increase their understanding of the relevance of the learning opportunities before them.

2. Expand the presence of authentic learning.

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

- 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). As was evident in a number of observed classrooms, some P.U.L.S.E.

teachers currently implement aspects of the first criterion (construction of knowledge) by choosing lesson materials that resonated to student experience, such as literature that takes place in an urban setting. Additionally, instances were noted where teachers took time to share personal experiences with students to help them connect more personally to the lesson content. Consequently, the school should consider expanding upon these efforts by focusing resources on the implementation of the second criterion: disciplined inquiry.

- 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.
- Build value beyond school (Newmann et al., 1995) by 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 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 below, "Regard for Adolescent Perspectives in the Classroom.")

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 (1999).*

- 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 9th 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 lunch-time 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, they developed their own “honor roll”, in which students are recognized for doing their best, following directions, and not talking out more than 3 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 teacher during school time. The teacher uses this time to get to know the student and offers them encouragement and praise. Children and youth benefit when their teachers demonstrate that they care about student well-being in addition to academic success.* Source: Linn Benton Lincoln Education Service District, Eugene, OR

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Recommendation 4: Systematic Data Use to Inform Instruction

Develop, implement, and utilize a more formal, cohesive student data collection, tracking, and analysis system that focuses on planning and delivering instruction for improved academic outcomes.

LINK TO RESEARCH

Student assessment data is an essential tool in measuring the effectiveness of instruction; teachers can use these data to ensure the success of all students.

The Institute of Education Sciences (IES) Practice Guide *Using Student Achievement Data to Support Instructional Decision Making* (Hamilton et al., 2009) includes the following school-level recommendations regarding data use to improve instruction:

- “Establish a clear vision for schoolwide data use.”
- “Provide supports that foster a data-driven culture within the school.”
- “Make data part of an ongoing cycle of instructional improvement.” (p. 9)

Clear Vision for Schoolwide Data Use. Learning Point Associates and Educational Service Agency Alliance of the Midwest (2006) emphasize the need to do the following:

Make sure all staff members understand what their core responsibilities are and what their obligations are for learning to do that work better. Understanding this will make a big difference in how staff will seek, manipulate, present, and use data. (p. 21)

The principal and school leaders also should set the example of using data regularly. A study of the effects of leadership practices on student achievement by Mid-continent Research for Education and Learning (Waters, Marzano, & McNulty, 2003) shows “the extent to which the principal monitors the effectiveness of school practices and their impact on student achievement” to be one of the 21 leadership responsibilities significantly associated with student achievement (p. 12). Cotton (1988) agrees, “The careful monitoring of student progress is shown in the literature to be one of the major factors differentiating effective schools and teachers from ineffective ones” (p. 1).

Supports That Foster a Data-Driven Culture Within the School. Cultivating a culture of reflection and continuous improvement will help teachers feel comfortable using data. Young’s (2008) case studies identify “four dimensions of trust” that suggest how culture may or may not support teachers using the data system. To the degree that teachers think in terms of these four dimensions, they will be more likely to utilize a data system:

- “Other teachers have high standards.”
- “Other teachers won’t think I’m incompetent.”
- “Others will participate/reciprocate in response to my engagement.”
- “Problems I raise will be seen as collective problems.” (p. 99)

QUICK LINKS: Online Sources for More Information

Children First Intensive
(Website)

<http://schools.nyc.gov/Accountability/resources/childrenfirst/>

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

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

*Using Student Achievement
Data to Support
Instructional Decision
Making* (Publication)

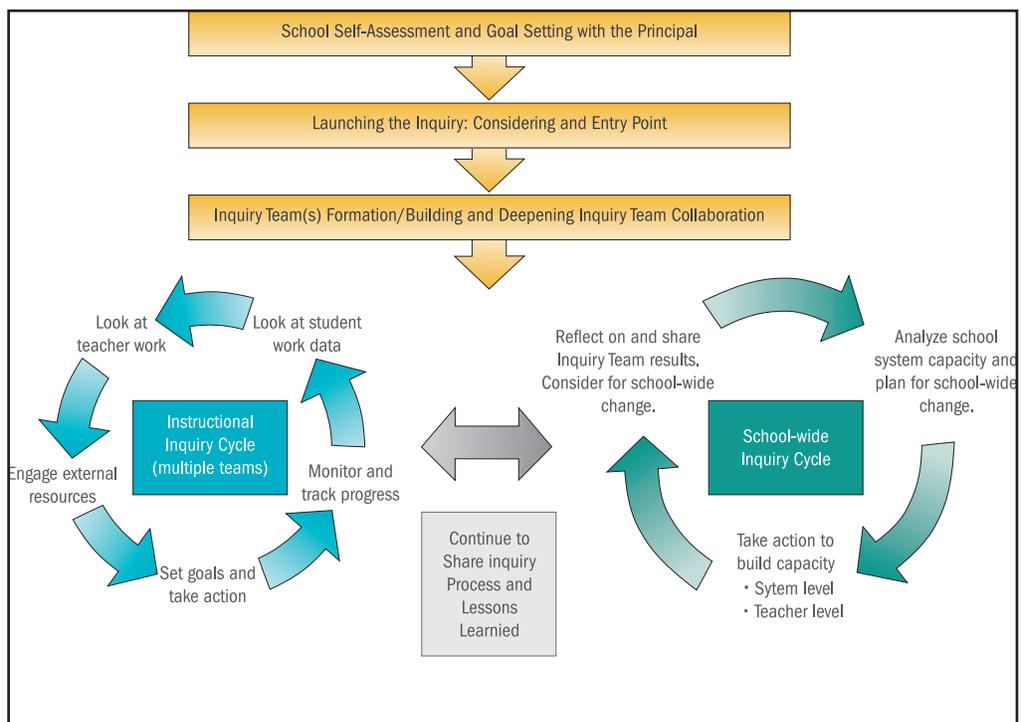
http://ies.ed.gov/ncee/wwc/pdf/practiceguides/dddm_pg_092909.pdf

Time also is an important factor in professional support. Teacher respondents cited in a U.S. Department of Education report on data use most often cited “lack of time to examine and reflect on data [as] the greatest barrier to data-driven decision making” (Means, Padilla, & Gallagher, 2010, p. 87).

Finally, “teachers need to learn how to obtain and manage data, ask good questions, accurately analyze data, and apply data results appropriately and ethically” (Lachat & Smith, 2005, p. 336). Through professional development and coaching, the school can support teachers in meeting these goals.

Data as Part of an Ongoing Cycle of Instructional Improvement. The NYCDOE Children First Intensive (CFI) professional development plan established school-level Inquiry Teams at each school to support student achievement. NYCDOE uses the following graphic (see Figure 1) to illustrate the ongoing process of collaborative inquiry.

Figure 1. Collaborative Inquiry Process



Source: NYCDOE (2011a)

NYCDOE (2011a) defines *collaborative inquiry* as “a sustained process of investigation and action by a group of educators that empowers teachers to improve student achievement and close the achievement gap. Collaborative inquiry can look very different in different contexts, but there are some common threads across all teams, mainly that teachers evaluate the effectiveness of their collective work through the lens of student work and data.”

IMPLEMENTATION CONSIDERATIONS

1. School leaders play an important part in creating a school culture of reflection and continuous improvement.

- Assign teachers to grade-level and/or subject-specific collaborative inquiry teams, if they do not already exist, to analyze schoolwide data and grade-level/subject-specific data.
- Identify how the work of collaborative inquiry teams will align with the schoolwide goals developed as part of the collaborative inquiry cycle, and as required for the Comprehensive Education Plan.
- Set aside time for collaborative data analysis. This analysis can take place during existing teacher collaboration time or could be done through Inquiry Teams.
- Develop a standard data analysis protocol and schedule.
- Provide resources to support teacher collaboration on data analysis, such as tracking sheets and/or a data coach.

2. Set clear expectations for teacher use of data.

- Establish a yearly, schoolwide schedule for assessments and screening procedures (e.g., three times each year).
- Identify assessment instrument(s) that will be used to track student achievement. Screening instruments should be valid, reliable, and aligned with grade-level curriculum based on learning standards (e.g., state assessments, Acuity Predictive Assessments, or instructionally targeted assessments) or subject-specific and researched-based assessments (e.g., Woodcock-Johnson III Diagnostic Reading Battery, Qualitative Reading Inventory, Dynamic Indicators of Basic Early Literacy Skills).
- Ensure that assessment results are shared with teachers in a timely way and that teachers have access to assessment results, if assessment results are not readily available on the Achievement Reporting and Innovation System (ARIS).
- Describe how the school, teams, and individual teachers will be expected to use data (e.g., set goals, align resources, modify scope and sequence, identify students for tutoring, target students in lesson plans).
- Provide professional development as needed on topics such as data analysis, item analysis, and instructional strategies.

3. Provide training on instructional strategies and differentiation. “Just having student data is not sufficient if teachers do not have ideas about how to teach differently based on student performance” (Means et al., 2010, p. 87).

- Provide professional development on instructional strategies and differentiation to give teachers a wealth of instructional options that they can call on to meet student needs.
- Adjust classroom instruction based on student progress. The IES Practice Guide *Using Student Achievement Data to Support Instructional Decision Making* (Hamilton et al., 2009) identifies the following changes to instruction that teachers can make to improve student achievement:

- “Prioritizing instructional time;
- Targeting additional individual instruction for students who are struggling with particular topics;
- More easily identifying individual students’ strengths and instructional interventions that can help students continue to progress;
- Gauging the instructional effectiveness of classroom lessons;
- Refining instructional methods; and
- Examining schoolwide data to consider whether and how to adapt the curriculum based on information about students’ strengths and weaknesses.” (p. 5)

4. Monitor progress. Track implementation of schoolwide data use policies to ensure that they are being implemented consistently and to provide teachers with continuous feedback and appropriate support.

- Establish a system of multiple methods for ensuring that teacher teams have what they need to engage in regular data analysis to inform instruction. This system could include inquiry team data logs, teacher reflection sheets on instructional strategies, and/or reports from the data coach.
- Consider implementing classroom walk-throughs by administrators, a lead teacher, or the data coach to see how data analysis and professional development are impacting classroom practice and to identify the best ways to support teachers moving forward. The intention of this process is formative teacher feedback to improve instruction—not to penalize teachers; thus, the school may wish to work collaboratively with its instructional staff to develop a related classroom walk-through protocol. By building in feedback loops, the school can ensure that effective decisions are being made, based on data. As Learning Point Associates and the Educational Service Agency Alliance of the Midwest (2006) state:

Data make change visible. Data provide an empirical lens that magnifies objective detail while distancing us from personality. Data can confirm if there is change or not. The smaller, the tighter, the more frequent the feedback loops that the data system supports, the more staff can make decisions, the more frequently decisions can be made, and the more likely that the decisions made will be better ones. (p. 5)

MacArthur Ninth Grade School

MacArthur Ninth Grade School, located in suburban Houston, Texas, serves students in Grades 9–12. Approximately 79 percent of students are eligible for free or reduced-price lunch.

USING DATA FOR CURRICULUM DEVELOPMENT

Teachers and the skills specialists regularly revisit and refine lesson design and instructional strategies based on student data. Teachers provide clear expectations for all class assignments to ensure students clearly understand the expectations. Rubrics are used to assess the products.

Each summer, the principal sets aside funds to design curriculum. During this time, teachers work together to finalize all aspects of the curriculum for each core subject area, such as determining skill objectives; warm-up activities; lessons, activities, and readings; and strategies for teachers. Teachers may use assessments and data analysis to further refine the curriculum during the school year. For example, the assistant principal for curriculum noted that students were struggling with literary elements. To identify strategies to address the issue, teachers observed, discussed, and implemented key aspects of successful lessons from other teachers.

ANALYZING DATA

The school administers three-week and six-week assessments to regularly check students' mastery of the objectives. Teachers analyze these data for trends and provide tutorial sessions to individual students to ensure they can demonstrate mastery. Students also monitor their own data and set learning goals after each six-week benchmark assessment.

For the three-week assessments, teachers develop a test that typically includes 12–15 multiple-choice questions based on district benchmark assessments. The results help teachers plan instruction and provide interim feedback to students.

The six-week assessments are the districtwide benchmark tests that contain 15 questions.

Teachers typically add additional items to ensure a minimum of four questions about each objective. After assessments are scanned and scored, teachers return the results to the students.

The students count their errors per objective, determine and record their percentages, and set personal goals for the next assessments.

To analyze these results, teachers enter them in a spreadsheet that was created by the testing coordinator. To determine whether the results of an individual teacher align with the average in the department, teachers meet by department and compare the passing percent of each class with the average in the department. Then teachers reflect on the results to determine (a) areas of instruction that need to be strengthened and (b) specific objectives that should be re-taught for a whole class period or revisited through daily warm-up activities.

The district has established a 70 percent mastery goal for the six-week benchmark assessments.

Students who do not meet this goal participate in after-school tutorial sessions. Each core subject has one day after school set aside for these sessions. Students receiving this additional support are retested until they achieve the benchmark goal.

Description excerpted from the from the Doing What Works Website at http://dww.ed.gov/media/DDI/DDDM/TopicLevel/case_macarthur_revised.pdf

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