

# Urban Science Academy

## 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 Urban Science Academy conducted by Learning Point Associates, an affiliate of American Institutes for Research. This audit was conducted in response to the school being identified as being in need of restructuring under the New York State Education Department (NYSED) 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 Urban Science Academy

Urban Science Academy (X325) is located in Community School District 9 in the Bronx. The school serves approximately 425 students in Grades 5–8. However, enrollment has declined during the past three years. Urban Science Academy is colocated in the Arturo Toscanini Complex with two other middle schools, I.S 145 and New Millennium Business Academy Middle School. Each school is housed on a separate floor and shares common spaces such as the auditorium, library, gymnasium, and cafeteria. Urban Science Academy was formed in 2004, when the former Community Junior High School 145 was broken down into three smaller schools. The original mission of Urban Science Academy was to educate students on improving their community through science; however, the school mission statement has shifted to, “*Our mission is to create empowered and prepared citizens by developing students’ social, emotional and academic intelligence.*” The school has an unscreened enrollment process, giving priority first to students residing in the school’s immediate zone, then to students and residents of Districts 9 and 10. Students who apply to Urban Science Academy are randomly selected.

In 2009–10, Urban Science Academy did not make adequate yearly progress (AYP) in English language arts (ELA) for all students, the Black or African American subgroup, the Hispanic or Latino subgroup, students with disabilities, and economically disadvantaged students. In 2010–11, Urban Science Academy’s state accountability status was designated as “Restructuring (year 1).”<sup>1</sup> Due to the designation as in “Restructuring,” the school participated in the ESCA.

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<sup>1</sup><https://www.nystart.gov/publicweb-rc/2010/0d/AOR-2010-320900010325.pdf>. Accessed on August 17, 2011

## Audit Process at Urban Science Academy

The ESCA approach utilized at the middle-school level examines five topic areas: student engagement, curriculum and instruction, academic interventions and supports, professional learning and collaboration, and support for transitioning students. Data were collected at the school level through teacher surveys, administrator interviews, classroom observations, and an analysis of documents submitted by Urban Science Academy. From these data, Learning Point Associates prepared a series of reports for the school's use.

These reports were presented to the school during a co-interpretation<sup>SM</sup> meeting on May 27, 2011. During this meeting, 12 stakeholders from the Urban Science Academy 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 Urban Science Academy.

The Appendix provides a sample school improvement planning calendar intended to help illustrate how these recommendations could be implemented during the coming year.

## 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 matches the wording developed and agreed upon by co-interpretation participants at the meeting.

### Critical Key Findings

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

**Established interventions exist, but there are no systems for tracking or measuring progress of interventions or evaluating effectiveness or follow-through.**

Critical Key Finding 1 is supported by information from school interviews, teacher survey results, and a review of documents submitted by the school. While school documents indicate that diagnostic data are collected in math and writing for incoming students, there is no evidence of systems for analyzing or reevaluating these data. Following the initial diagnostic assessments, school-submitted documents showed evidence that students are provided with several products or programs to support their academic progress, but there was no evidence that the school assesses the impact or effectiveness of these interventions. This was echoed by teacher survey data. Approximately half of the teachers who responded felt confident that academic supports provided to students would be effective.

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

**Teachers are not consistently asking students to think at a higher depth of knowledge; there is inconsistent and unsustained classroom discussion, teacher/peer feedback, or emphasis on clarifying students' thoughts and ideas.**

Critical Key Finding 2 is supported by information from classroom observations and teacher survey results. During classroom observations conducted by the auditors, there were not always opportunities provided for students to engage in higher-order thinking. While during some observations students were presented with challenging tasks that promote higher-level thinking, most activities required students to recall basic facts, summarize and describe information, and state the main idea. Teacher survey results also showed that, in the classroom, students often are engaged in answering textbook questions or completing worksheets, with 80 percent of respondents indicating this occurs one to two times per week or daily. In nearly all observed classrooms (94 percent) there were limited or unsustained opportunities for students to receive and engage in feedback. In some classes where teachers provided feedback that encouraged students to explain their thinking, these efforts were not sustained during the observation period. Teacher survey results echoed these data about how feedback is provided in the classroom, with 72 percent of teachers indicating that their students sometimes or never provide constructive feedback to peers during classroom discussions.

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

Thirteen of 23 classrooms were rated in the mid range for Regard for Adolescent Perspectives. Classrooms observed were teacher centered, with no chance for student choice and minimal opportunity for peer-to-peer interaction.

Critical Key Finding 3 is supported by information from classroom observations. In all observed classrooms, the teacher provided most—if not all—of the structure for the class, with no chance for student choice, responsibilities, decision making, or leadership. Almost 50 percent of observations received ratings in the mid range, indicating inconsistent or unsustained opportunities for students to take responsibility for their own learning. Only a few teachers connected learning materials to students' current experiences or "real-life" scenarios. In some classrooms, there were no opportunities for meaningful peer-to-peer interactions that served to promote academic rather than strictly social exchanges.

### **CRITICAL KEY FINDING 4:**

Collaboration is happening but does not appear to be systematic and formalized. (Lack of structured time prohibits collaboration across departments and grades.)

Although teachers reported collaborating about students and ideas, most teachers (82 percent) reported that they rarely met with other teachers in formal, scheduled sessions. Finally, more than one third (38 percent) of teachers disagreed or strongly disagreed that teachers collaborate across subjects and genres.

## **Positive Key Finding**

### **POSITIVE KEY FINDING 1:**

The majority of teachers report that professional development helps teachers meet the needs of their students, and documents/interviews report professional development to be relevant and engaging.

Positive Key Finding 1 is supported by interviews with school staff, teacher survey results, and a review of submitted documents. Approximately 70 percent of teachers who responded to the survey agreed or strongly agreed that professional development met the needs of students in their classroom. This includes professional development sessions on teaching reading skills, which almost 70 percent of teachers found to be moderately helpful. Documents submitted by the school demonstrated a breadth of topics covered during professional development sessions and meetings designed to address a wide variety of student learning needs. Interview respondents also indicated that many teachers are benefitting from professional development that targets instructional practice and curriculum development in the content areas.

# Recommendations

## Overview of Recommendations

The ESCA process can help Urban Science Academy gain a clear picture of current conditions in the school beyond AYP status. It also will provide four focused areas that will positively impact the school learning community and help school staff focus on issues that will move them toward exiting Restructuring status. Most schools already are overwhelmed with change. They do not need new initiatives; they need an approach that consolidates and coordinates existing initiatives and makes it easier for people within the school community to work together toward common ends.

Participants at the co-interpretation meeting identified and prioritized four focus areas for improvement: supporting students at risk, instructional strategies, regard for adolescent perspectives, and teacher collaboration. These priorities were supported by evidence from data collected by Learning Point Associates and presented to the participants during the co-interpretation meeting. One critical key finding regarding guiding curricular documents was prioritized by the co-interpretation participants. The ELA long-term plan and curriculum outline the content and skills that are covered throughout the school year, but they do not include any instructional strategies, and only the Grade 5 curriculum includes suggestions for modifications. Interviewees stated that the curriculum is consistent from year to year, and a large majority (84 percent) of teachers feel they have influence over establishing curriculum and instructional programs. After a review of the supporting evidence and other documentation, it was found that while this key finding was identified as critical to the school's restructuring efforts and prioritized by participants, there currently are structures and supports in place for the ongoing development and alignment of the curriculum. Due to these reasons, the auditors chose not to include a separate recommendation regarding curricular alignment.

## THE FOUR RECOMMENDATIONS

With these issues in mind and using relevant research, Learning Point Associates auditors developed the following four recommendations for Urban Science Academy:

1. Develop and implement a schoolwide system to identify at-risk students using assessment data, provide multitiered academic interventions, and employ ongoing progress monitoring to address student needs.
2. Implement instructional strategies that increase opportunities for higher-order thinking, analysis and problem solving, and deeper content understanding.
3. Initiate a schoolwide process for capitalizing on the social and developmental needs and goals of adolescents by providing opportunities for student autonomy and leadership. Also consider the extent to which student ideas and opinions are valued and content is made useful and relevant to adolescents.
4. Identify job-embedded opportunities for teacher collaboration that fosters effective instructional practices schoolwide. These opportunities should allow all teachers to collaborate regularly on instruction.

These recommendations were developed and chosen for Urban Science Academy based on the research literature and identified priorities created through the co-interpretation process. Each recommendation provides a review of research, specific actions the school may wish to take during its implementation process, examples of real-life schools that have successfully implemented strategies, and online resources for additional information. 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: Systemic Academic Interventions

**Develop and implement a schoolwide system to identify at-risk students using assessment data, provide multitiered academic interventions, and employ ongoing progress monitoring to address student needs.**

### LINK TO RESEARCH

*Academic intervention services* (AIS) is defined by NYSED (2010) as “additional instruction which supplements the instruction provided in the general curriculum” for “students who are at risk of not achieving the state learning standards in English language arts, mathematics, social studies and/or science, or who are at risk of not gaining the knowledge and skills needed to meet or exceed designated performance levels on state assessments.” Across the state of New York, school leaders are searching for ways to enhance the current AIS programs in their schools to be able to identify students earlier, provide services to all students who require them, and measure student outcomes (Killeen & Sipple, 2004). Many schools begin to implement response to intervention (RTI) after determining that their current structures and processes are not meeting their students’ academic needs.

The incorporation of an RTI model into established interventions has been found to improve student academic progress; specifically, it has been found to increase the number of children who demonstrate proficiency on state accountability tests (Heartland Area Education Agency 11, 2004).

According to the National Center on Response to Intervention, RTI is a model of academic supports that “integrates assessment and intervention within a multi-level prevention system to maximize student achievement and to reduce behavioral problems” (Bailey, 2010). These goals are accomplished through the identification of students at risk for poor learning outcomes, provision of evidence-based interventions, regular monitoring of student progress, and regularly adjusting the intensity and nature of those interventions depending on a student’s responsiveness.

In a national study conducted by the National Center on Response to Intervention (Prewitt & Mellard, 2010), middle schools across 28 states, including New York, participated in a study to identify current RTI practices, identify key factors of successful implementation, and identify RTI practices linked to positive student learning outcomes. Schools involved in the study chose RTI to (1) close the student achievement gaps, (2) meet AYP every year with every subgroup, or (3) address undesirable and disruptive student behaviors.

According to Prewitt and Mellard (2010), models of a responsive academic intervention program include a data-driven decision-making model that includes:

- The use of a schoolwide (universal) screening assessment to identify students at risk for poor learning outcomes
- Multitiered intervention programs and strategies that increase in levels of intensity
- Frequent and ongoing progress monitoring to determine student progress and determine program efficacy
- A team structure to organize and analyze student performance using progress monitoring data

### QUICK LINKS: Online Sources for More Information

Doing What Works:  
Research-Based Education  
Practices Online (Website)  
<http://dww.ed.gov/>

National Center on  
Response to Intervention:  
*What Is RTI?* (Webpage)  
[http://www.rti4success.org/  
whatisrti/](http://www.rti4success.org/whatisrti/)

National Research Center on  
Learning Disabilities: *Tiered  
Service-Delivery Model*  
(Webpage)  
[http://www.nrclid.org/  
rti\\_practices/tiers.html](http://www.nrclid.org/rti_practices/tiers.html)

New York State Response  
To Intervention Technical  
Assistance Center (Website)  
<http://www.nysrti.org>

Although research indicates minimum components for successful implementation of responsive intervention programs, no specific model of RTI, intervention program or strategy, or progress monitoring tool is endorsed by Learning Point Associates. Instead, schools are encouraged to consider these research-based recommendations to make specific decisions regarding the structure and design of intervention programs that will best meet the needs of their situation.

## IMPLEMENTATION CONSIDERATIONS

Schools face a number of challenges when selecting a strategy for implementing academic interventions. Local regulations; contracts; and resources such as time, funding, and personnel all play a major role. Schools must determine, based on individualized circumstances, what will ultimately work best. The most effective programs are those that are launched with clear leadership, built from careful planning, and supported with schoolwide awareness and professional development prior to full implementation.

### **1. Identify a team of school staff members who will lead the “rollout” of the intervention.**

This leadership team may vary according to the school’s demographics. Some schools choose to include teachers who work with subpopulations (e.g., English language learners and students with disabilities), and other schools include teachers who teach in the content areas in which RTI is being implemented (e.g., ELA teachers from each grade, literacy coach, and reading specialist). Network resources and coaches also should be considered.

### **2. Conduct careful planning to ensure the success of the rollout.**

School leadership defines the intervention infrastructure, scheduling, resources, funding, staffing, screening and progress monitoring assessments, intervention programs, tools, and strategies. This process includes developing explicit plans, processes, and procedures prior to implementation. Following is a checklist of topics to cover:

#### ***Data-Based Decision Making***

- Establish a team structure, routines, and procedures for making decisions.
- Set explicit decision rules to decide when students will move into, out of, or within interventions.
- Develop record-keeping systems that communicate student progress to stakeholders (e.g., student, parent, teachers, AIS coordinator).

#### ***Assessments and Screenings***

- Establish a yearly, schoolwide schedule for assessments and screening procedures (e.g., three times each year).
- Identify screening instrument(s) that will be used to identify students for interventions. Screening instruments should be valid and 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 research-based assessments (e.g., Woodcock-Johnson III Diagnostic Reading Battery, Qualitative Reading Inventory, Dynamic Indicators of Basic Early Literacy Skills).

- Establish participation criteria, select benchmarks or cutpoints at which risk is determined, and identify students who fail to meet benchmarks or fall below specified cutpoints.
- Create multitiered “entry points,” and establish multiple benchmarks to “slice the pie,” allowing students to receive targeted interventions that vary in levels of intensity (e.g., students 0 percent to 40 percent and 41 percent to 65 percent, or Level 1 and Level 2 on state assessments).

#### ***Tiered Intervention Programs***

- Select evidence-based intervention programs and/or strategies to use with students who fall in various ranges based on the screening tool used.
- Determine the service delivery method (e.g., pullout small-group instruction, afterschool instruction, Saturday program) and duration and frequency of service.
- Ensure that services and programs are “tiered” and increase in levels of intensity, which match the increasing needs of students.

#### ***Progress Monitoring***

- Determine assessments to be used. Assessments can be both formal (e.g., AIMSweb, Acuity predictive assessments, or instructionally targeted assessments) and informal (e.g., checklist, running records).
- Establish a benchmark for performance (e.g., >40 percent and >65 percent). These benchmarks determine when students will move within, through, and out of tiers of interventions.
- Establish a timeline for progress monitoring. Monitoring may occur as frequently as every two weeks.

### **3. Create an awareness of the intervention, and provide adequate professional development to ensure that everyone is on board.**

Many schools follow a “train the trainers” model, in which selected staff members attend training and turnkey that training to other staff. Depending on which teachers and staff will be providing interventions, training also may be schoolwide. A critical component of the RTI implementation process is to ensure that stakeholders are clear about what is being implemented and why it is being implemented. School leaders must establish and communicate the goals and expected outcomes of adopting an RTI model while providing ongoing training and sufficient time for staff to fully understand the components and structures of a new intervention model. Successful implementation relies heavily on the ability of teachers and school leaders to implement RTI with fidelity.

Opportunities for AIS-related professional development should be embedded into the school’s annual professional development plan. Careful planning is essential when rolling out professional learning opportunities in the area of AIS.

#### 4. Put the intervention plan into action.

Recommendations for implementation include “start small.” (See “Starting Small.”) This approach might include starting in one grade, one content area, or one classroom; or it could begin by focusing on one or two components of RTI. This decision should be what makes the most sense for the school based on existing resources, tools, and structures. At this phase, adjustments and adaptations are an ongoing part of the process.

### Starting Small

Two approaches for “starting small” with an academic intervention program are to start with one essential component or to start with one small group.

**Starting With One Essential Component:** Build a model with a focus on one component at a time (e.g., screening, then data-based decision making, then progress monitoring, then intervention levels). Create a timeline for the implementation of each component, and align training for school staff with each phase of implementation.

***Example:** A middle school in the Midwest began the implementation of its RTI program by first focusing on reading programs and strategies for students identified as being at risk. A second tier of interventions and progress monitoring was rolled out later in the year.*

**Starting With One Small Group:** Implement the intervention program with a small pilot group. With this approach, it is best to investigate which components worked well and which need to be refined before scaling up to other classes, grades, or content areas.

***Example:** A Pennsylvania school implemented RTI in a small number of classrooms during the first year to determine what worked and what did not work. The school's interventions team focused on creating a balance between moving too slowly (which they felt would minimize the impact of RTI and decrease staff buy-in) and moving too quickly (which might overwhelm teachers and students).*

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Adapted from *Response to Intervention Practices in Middle Schools*, a 2011 presentation by Daryl F. Mellard and Sarah L. Prewett, available online at [http://www.rti4success.org/ppt/WBNR\\_April2011.ppt](http://www.rti4success.org/ppt/WBNR_April2011.ppt). This document was produced by the National Center on Response to Intervention and is in the public domain.

## **School A's Intervention Program**

School A is a middle school serving a total of 870 students in Grades 6–8. Approximately 50 percent of students are eligible for free or reduced-price lunch, 22 percent are English language learners, and 11 percent are students with disabilities. In the 2005–06 school year, only 50 percent of the students at each grade level were proficient on state examinations and approximately 16 percent of students at each grade level were “far below” grade level.

In response to comprehensive school improvement efforts, the school implemented a three-tiered RTI model in reading. At the end of the 2006–07 school year, more than 80 percent of students in all grades passed the state ELA test. Following is an outline of the intervention program developed by School A in response to student performance and learning initiatives.

### **TIER I**

#### **Intervention Program or Strategy**

- Holt Rinehart and daily fluency instruction; general education classroom

#### **Length of Instruction/Intensity**

- 5 days per week for 72 minutes per day

#### **Screening Tools**

- Grade-level fluency passages, district writing prompts, Scholastic Reading Inventory, curriculum-based assessments administered three times each year

#### **Data-Based Decision-Making Process**

- RTI team (principal, related service provider, grade-level teachers) reviews scores in monthly grade-level meetings.
- Students who are two grade levels behind are placed into the next tier of interventions; students who are three grade levels behind are placed into the third tier of interventions.

### **TIER II**

#### **Intervention Program or Strategy**

- *REWARDS, Read Naturally, Soar to Success*

#### **Length of Instruction/Intensity**

- 3 days per week for 72 minutes each day

#### **Screening Tools**

- Curriculum-based assessments administered three times each year

#### **Data-Based Decision-Making Process**

- Students are assigned to the programs based on identified skill deficit (comprehension, decoding, fluency).
- Students move between tiers based on progress monitoring scores.

### **TIER III**

#### **Intervention Program or Strategy**

- *Language!, Read 180, High Point*

#### **Length of Instruction/Intensity**

- Daily for 144 minutes

#### **Screening Tools**

- Same as Tier II

#### **Data-Based Decision-Making Process**

- Students exit this tier after progressing within two grade levels of expectations (into Tier II).

Adapted from pages 58–59 of *Implementing Response to Intervention: Practices and Perspectives From Five Schools—Frequently Asked Questions*, by Kathryn Klinger Tackett, Greg Roberts, Scott Baker, and Nancy Scammacca, available online at <http://www.centeroninstruction.org/files/Implementing%20RTI%20Practices%20%26%20Perspectives%20of%205%20Schools.pdf>. This report was published in 2009 by the Center on Instruction and is in the public domain.

## 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 also is 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:  
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>

## 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 ongoing professional development for teachers 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?* 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.*

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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 August 17, 2011, from <http://centerforaiw.com/sites/centerforaiw.com/files/Authentic-Instruction-Assessment-BlueBook.pdf>

## **Plainwell Middle School**

**Plainwell Middle School in Plainwell, Michigan, serves students in Grades 6–8. The school has had success in improving instructional rigor.**

In 2005, Plainwell Community Schools implemented districtwide curriculum restructuring with professional development focused on using the research-based instructional strategies outlined in Robert Marzano's *Classroom Instruction That Works* (2003) ... Some of the instructional delivery techniques that were adopted as part of this professional development include the use of nonlinguistic representations of abstract concepts and the use of higher-order questions to elicit student explanations. Teachers find Marzano's strategies to be compelling, noting the evidence of a significant correlation between increased student achievement and the use of research-proven instructional techniques. This approach lays the groundwork for a shift in staff culture, moving away from the use of personal intuition to the use of empirical, quantitative data to inform decisions around teaching and learning.

In 2005, social studies teachers at Plainwell Middle School decided to adopt a new curriculum aligned with Marzano's strategies.... Interactive slideshows are used as a way to actively engage students in new content learning, letting them participate in lectures by touching, interpreting, and acting out historical images and events projected onto a screen. The curriculum also supports vocabulary instruction with graphic organizers that connect definitions with visuals to help students understand and retain key terms. Some teachers...have modified the workbook graphic organizers to create their own "visual dictionaries"...

Higher-order questions also are used as an instructional technique through the new curriculum. Response groups are a structure that teachers use to facilitate small-group discussion on controversial topics in history. Through a series of probing questions that require critical thinking and the use of evidence, teachers elicit student explanations that require analysis and application of historical information. Finally, students match up their decisions and viewpoints with actual decisions made in history.

In addition to these strategies, social studies teachers at Plainwell Middle School intentionally build review into daily lessons and assessments. Each day begins with a warm-up activity that quizzes students on a previous lesson.... When introducing a lesson, teachers also make sure to begin with a preview activity that they can refer back to when reviewing the material....

Curriculum restructuring at the middle school is carefully implemented to ensure success.... First, a less-is-more approach is taken, allowing ample time for teachers to learn and practice a single strategy before moving on to another one. Also, teacher training is conducted by lead teachers...who model classroom techniques, lead guided discussions, and set periodic objectives for teams. Instead of a passive "sit-and-get" approach, teachers actively practice the strategies and report to their teams about their progress. Finally, administrators support the efforts by aligning observational classroom walk-through forms to match the professional development focus, keeping the strategies at the center of conversation about teaching.

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Description excerpted from the from the *Doing What Works* website at [http://dww.ed.gov/media/CL/OIS/TopicLevel/case\\_plainwell\\_71508.pdf](http://dww.ed.gov/media/CL/OIS/TopicLevel/case_plainwell_71508.pdf). This information is in the public domain.

## Recommendation 3: Student Voice, Choice, Autonomy, and Leadership

**Initiate a schoolwide process for capitalizing on the social and developmental needs and goals of adolescents by providing opportunities for student autonomy and leadership. Also consider the extent to which student ideas and opinions are valued and content is made useful and relevant to adolescents.**

### 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 and deepen their cognitive process to 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.

### IMPLEMENTATION CONSIDERATIONS

Adolescence represents a critical period during which youths struggle to take on new responsibilities and learn decision-making skills while establishing a sense of self. During this period, adolescents also 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).

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,

#### 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/](http://www.sustainengagement.com/)

*Classroom Observation:  
Student Autonomy* (Website)

[http://www1.teachertube.  
com/viewVideo.  
php?title=Classroom\\_  
Observation\\_\\_Student\\_  
Autonomy&video\\_  
id=185325](http://www1.teachertube.com/viewVideo.php?title=Classroom_Observation__Student_Autonomy&video_id=185325)

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

Specifically, teachers can take the following actions to promote 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 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 criticize 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

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Young, M. R. (2005). The motivational effects of classroom environment in facilitating self-regulated learning. *Journal of Marketing Education*, 27(1), 25-40.

## **Strategies for Engaging Students**

A rural K–8 elementary school 45 minutes outside of New Orleans, Louisiana, where the motto is “Where all Students and the community Journey toward Excellence in Academics” has always struggled with keeping students engaged in school and specifically keeping them to the 8th grade. The school and community have a centuries-long history of students dropping out of elementary school to join their fathers, uncles, or grandfathers in the fields as agricultural workers. Every year the school administered surveys to students and parents, and the results were always similar: school was not exciting and the curriculum was not preparing students for a future outside of this rural town, so there was no need to continue to stay in school and/or further education to high school and beyond.

In 2008, the principal attended a National Middle School Association conference, where she learned some strategies for infusing adolescent perspectives in the classroom. Thinking these strategies could only help her students connect to school and want to stay until 8th grade and matriculate on to high school, she embarked on a year-long journey with her staff to “get to know” and understand the adolescent students attending her school.

The summer before that school year started, the principal asked grade-level teams of teachers to attempt to relate at least half of their lessons or units to students’ lives, use authentic instructional practices, and give students choice for at least half of the lessons or units. In July, the principal sent all teachers to a training on how to incorporate authentic intellectual work in the classroom. Two refresher professional development sessions were held by grade-cluster leaders throughout the school year.

### **CONNECTING CURRICULUM TO STUDENTS’ LIVES:**

- In August, teachers surveyed students’ interests to give teachers direction in planning activities that would “get students on board” from the start. (Teachers brainstormed with children on what kinds of projects they could do and offered students the ability to work on independent projects that would 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.)
- Teachers surveyed students again at key points during the year, which informed teachers of new interests that developed as their students grew.

### **AUTHENTIC INTELLECTUAL WORK:**

- In every lesson, teachers made a concerted effort to identify students’ preconceptions and initial understanding, which they found to be critical to the learning process.
- In every lesson, teachers were able to build on the learner’s prior knowledge to develop a deeper understanding, integrate new information, and use the knowledge in new ways.

### **STUDENT CHOICE:**

- The third- through eighth-grade teachers created interest centers designed to motivate students’ exploration of topics in which they had a particular interest. The centers were usually composed of objects that students could explore, such as shells, leaves, maps, or projects, and were centered around broad topics. Students could choose from a menu of activities and note their choices accordingly. Teachers decided how many items on the menu (minimum) that each student was required to complete.

When it was appropriate, the following autonomy-inducing teacher behaviors also were incorporated into lessons:

- 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

## Recommendation 4: Professional Learning and Collaboration

**Identify job-embedded opportunities for teacher collaboration that fosters effective instructional practices schoolwide. These opportunities should allow all teachers to collaborate regularly on instruction.**

### LINK TO RESEARCH

One trademark of high-performing schools is what is known as a professional learning community. A professional learning community is characterized as a group of educators who “work together to analyze and improve their classroom practice...engaging in an ongoing cycle of questions that promote deep team learning” (DuFour, 2004). Research shows that collaboration among teachers can be a powerful driver for school improvement by providing “opportunities for adults across a school system to learn and think together about how to improve their practice in ways that lead to improved student achievement” (Annenberg Institute for School Reform, 2004, p.2). Schools building professional learning communities have created opportunities for teachers and other professionals to collaborate through team meetings, critical friends groups, or lesson study, in which teachers collaboratively plan, observe, and analyze classroom lessons.

DuFour (2007) and Fullan (2007) concede that some school systems may succumb to the temptation to rename existing teacher work groups as professional learning communities or to become distracted or confused by terminology (e.g., Patterson et al., 2006), rather than maintaining the intended focus on revising and strengthening instruction for the benefit of students. These researchers and authors emphasize that a key to successful professional learning communities is developing and maintaining a schoolwide culture that does not merely accept the purpose of professional learning communities but embraces their strict attention to examining practice to improve student learning. Among other challenges, educators need to use professional learning community time for its intended purpose and consciously to avoid using the professional learning community as a forum for unrelated topics or business. Creating such a culture is a challenge. Research consistently shows, however, that when faculty, staff, administrators, and the larger education community come together to work on strengthening teaching and learning, improvement follows (Annenberg Institute for School Reform, 2004; Blankstein, Houston, & Cole, 2008).

Several studies have concluded that professional learning communities can have a positive impact on school culture, professional development, and student achievement. For instance, Vescio, Ross, and Adams (2008) found that teachers interacting with colleagues in professional learning communities were more willing to take risks in trying new things, were able to reflect thoughtfully on their teaching, were more forthcoming in sharing ideas and concerns with one another, and were focused on improving instructional practices to improve student learning; they felt empowered to make changes based on their professional learning community work and demonstrated increased commitment to continuous professional learning for themselves and fellow teachers. Dunne, Nave, and Lewis (2000) discovered that teachers in their study gradually shifted from teacher-directed to student-centered practices as a result of their sustained dialogues and collaborations. Hollins, McIntyre, DeBose, Hollins, and Towner (2004) noted that, as a result of interactions and work in professional learning communities,

### QUICK LINKS: Online Sources for More Information

Effective Teacher  
Collaboration Time (Website)

<http://www.mass2020.org/files/file/Increased%20Learning%20Time%20Partnership/Session%202/S2%20Presentation%20-%20Effective%20Use%20of%20Teacher%20Time.pdf>

*Professional Learning  
Communities: Professional  
Development Strategies  
That Improve Instruction*  
(Publication)

<http://www.annenberginstitute.org/pdf/ProfLearning.pdf>

*Maximizing the Impact  
of Teacher Collaboration*  
(Publication)

[http://www.centerforcsri.org/files/TheCenter\\_NL\\_Mar07.pdf](http://www.centerforcsri.org/files/TheCenter_NL_Mar07.pdf)

*Professional Development:  
Learning From the Best.  
A Toolkit for Schools and  
Districts Based on the  
National Awards Program  
for Model Professional  
Development* (Publication)

<http://www.learningpt.org/pdfs/pd/lftb.pdf>

teachers redirected their time and effort from complaining about the challenges of teaching nonproficient students to developing instructional procedures and tools to improve the learning of these students.

## IMPLEMENTATION CONSIDERATIONS

The key to developing and implementing effective collaborative time that positively impacts student achievement is ensuring that the time is used productively and is impactful to the daily practice of teachers. When developing a professional learning community and collaboration plan, think about the following:

- Resources available to support collaboration (e.g., network specialist, financial incentives)
- Ways to leverage teacher leadership (Identify teachers and staff members who can serve as department chairs or team leads.)
- Creative ways to find collaboration time in the school schedule
- Ways to support teachers in development of collaboration skills (e.g., team-building opportunities, buddy or mentor teachers)
- Current norms of collaboration (e.g., shifting focus from behavior management to instructional focus)
- Proactive strategies to engage staff who may be more resistant to collaboration
- Constraints of teacher contracts
- Effective and inclusive integration of specialists into collaboration plans (e.g., outside consultants, network instructional specialist, mentor teachers)

Effective professional learning communities should be developed and implemented using the following considerations:

### 1. Provide time for collaboration.

- 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.
- Create daily common planning periods. Designate one day each week for each team to engage in collaborative rather than individual planning.
- Identify opportunities throughout the school year for extended time to dedicate to collaboration time (e.g., in-service days, grade-level assemblies, back-to-back periods of "specials").
- *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).*

### 2. Align teacher work with school goals and priorities.

- Team work should mirror and seek to enhance schoolwide student achievement goals and objectives. Agendas, activities, and outcomes should reflect 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 increase literacy across the curriculum, collaboration time may be spent examining curricular documents and lesson plans and identifying areas for literacy skills across various subject areas and grade levels.*

### **3. Focus collaboration on improving student learning.**

- Effective collaboration focuses on improving practice in order to improve student learning. The work process of collaborative teams should be designed to do the following:
  - Clarify what students must learn.
  - Gather evidence of student learning.
  - Analyze that evidence.
  - Identify most powerful teaching strategies.

### **4. Ensure collaboration is data driven.**

- Use student performance data in collaborative groups 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 data collection, review, and analysis.

### **5. Provide structure for collaborative time.**

- Structure collaboration time with clearly mapped goals, objectives, and accountability. Create a long-term plan, calendar, and/or 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 how to examine student work, tune and align curricular documents, provide feedback on lesson plans and teaching, develop common assessments, and identify students for remediation.*

### **6. Offer leadership and support.**

- Focus the work of collaborative groups by helping them align their priorities with achievement goals.
- Provide resources 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 provides an example of teacher collaboration.**

Jacob Hiatt Magnet School, located in Worcester, Massachusetts, serves 456 students in Grades PK–6. Students with disabilities make up 15 percent of the student population, and 30 percent of students are limited English proficient; 71 percent of students are eligible for free or reduced-price lunch. 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” to review student work and examine student-level data. Collaboration time includes regular weekly and monthly grade-level team meetings and full staff meetings two to three 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. Coverage is provided by the principal, assistant principal, and specialist teachers to allow teacher teams to have at least 60–90 minutes of uninterrupted collaboration time.

### **SCHOOLWIDE INSTRUCTIONAL FOCUS**

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

### **THREE SCHOOLWIDE BEST PRACTICES**

The instructional focus led to the identification and adoption of three best practices to be used by all teachers in support of student learning: *time dedicated to open response daily in every classroom, modeling, and use of T-charts*. Teacher collaboration is focused on supporting the refinement of these best practices.

### **USE OF DATA**

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

### **ROUNDS**

The collaboration model at Jacob Hiatt Magnet School also includes a process referred to as “rounds.” This process consists of small groups of teachers who collaborate to better understand the teaching-learning process within individual classrooms through prearranged visits. Teachers participate as either observers or host teachers. The professional learning process is facilitated by well-defined roles for each participant, preround orientation meetings, and postround opportunities for reflection and discussion.

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Source: *The Effective Use of Teacher Collaboration Time to Advance Student Achievement: A living Case Study* (October 2010). Retrieved August 17, 2011, from <http://www.mass2020.org/files/file/Increased%20Learning%20Time%20Partnership/Session%202/S2%20Presentation%20-%20Effective%20Use%20of%20Teacher%20Time.pdf>

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## Suggestions for Further Reading

### INSTRUCTIONAL RIGOR

Herman, R., Dawson, P., Dee, T., Greene, J., Maynard, R., Redding, S., & Darwin, M. (2008). *Turning around chronically low-performing schools: A practice guide* (NCEE #2008-4020). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved August 17, 2011, from [http://ies.ed.gov/ncee/wwc/pdf/practiceguides/Turnaround\\_pg\\_04181.pdf](http://ies.ed.gov/ncee/wwc/pdf/practiceguides/Turnaround_pg_04181.pdf)

### ACADEMIC INTERVENTION SERVICES

Prewitt, S. L., & Mellard, D. F. (2010). *RTI in middle schools* [Webinar]. Washington, DC: National Center on Response to Intervention. Retrieved August 17, 2011, from [http://www.rti4success.org/pdf/RTI\\_in\\_Middle\\_Schools.pdf](http://www.rti4success.org/pdf/RTI_in_Middle_Schools.pdf)

### TEACHER COLLABORATION

Eaker, R., DuFour, R., & Burnette, R. (2002). *Getting started: Reculturing schools to become professional learning communities*. Bloomington, IN: National Educational Service.

Hassell, E. (1999). *Professional development: Learning from the best. A toolkit for schools and districts based on the National Awards Program for Model Professional Development*. Oak Brook, IL: North Central Regional Education Laboratory. Retrieved August 17, 2011, from <http://www.learningpt.org/pdfs/pd/lftb.pdf>

## Appendix

### **The Path to Success: School Improvement Planning Calendar**

Educational researchers find that successful schools focus their improvement efforts on a few key areas. The school improvement planning calendar will help Urban Science Academy develop and implement four key areas of focus that, if implemented with fidelity, will lead to whole school improvement. As with all school improvement processes, Urban Science Academy should ensure it has the support of its stakeholders (people who have an interest in the school, including students, parents, administrators, teachers, other school staff and volunteers, local residents and businesses, community organizations, and corporate partners) and the school leadership team.

The school may wish to use this improvement calendar as a guide to success by targeting specific action steps that should be taken each quarter to successfully follow the recommendations and use the research and successful practice examples laid out within this report.

	SUMMER	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
<b>Student Voice, Choice, Autonomy, and Leadership</b>	<ul style="list-style-type: none"> <li>Reevaluate teacher leaders to determine who can serve as department and/or grade level chairs or team leads</li> <li>Provide sufficient time for teacher collaboration time in school schedule</li> <li>Create daily common planning periods; designate one day each week for each team</li> <li>Create a plan to address school improvement topics during collaboration time</li> <li>Create a long-term plan, calendar, and/or schedule of topics and activities for common planning time</li> <li>Identify constraints of teacher contract</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate adolescent perspective into classroom observation tool (develop rubric)</li> <li>Provide professional development on the adolescent perspective topics:               <ol style="list-style-type: none"> <li>Implementing choice and student autonomy and leadership</li> <li>Making the curriculum relevant</li> <li>Making learning authentic</li> </ol> </li> <li>Revise curriculum maps to reflect frequency and adolescent perspective topic being implemented per lesson and/or unit</li> </ul>	<ul style="list-style-type: none"> <li>Monitor (administrators) adolescent perspective strategies via classroom observations, lesson plans, and units</li> </ul>	<ul style="list-style-type: none"> <li>Develop targeted refresher professional development on adolescent perspective topics:               <ol style="list-style-type: none"> <li>Implementing choice and student autonomy and leadership</li> <li>Making the curriculum relevant</li> <li>Making learning authentic</li> </ol> </li> <li>Monitor (administrators) adolescent perspective strategies via classroom observations, lesson plans, and unit</li> </ul>	<ul style="list-style-type: none"> <li>Monitor (administrators) adolescent perspective strategies via classroom observations, lesson plans, and units</li> <li>Determine the level of adolescent perspective occurring across classrooms (grade levels and departments) via observation rubric</li> <li>Based on rubric data, revise professional development and other supports for teachers (grades and/or departments)</li> </ul>
<b>Professional Learning and Collaboration</b>	<ul style="list-style-type: none"> <li>Reevaluate teacher leaders to determine who can serve as department and/or grade level chairs or team leads</li> <li>Provide sufficient time for teacher collaboration time in school schedule</li> <li>Create daily common planning periods; designate one day each week for each team</li> <li>Create a plan to address school improvement topics during collaboration time</li> <li>Create a long-term plan, calendar, and/or schedule of topics and activities for common planning time</li> <li>Identify constraints of teacher contract</li> </ul>	<ul style="list-style-type: none"> <li>Develop ways to support teacher collaboration skills (e.g., team building, buddy or mentor teachers)</li> <li>Develop strategies to engage staff who may be resistant to collaboration</li> <li>Include specialist into collaboration plan (e.g., outside consultants, network instructional specialists, etc.)</li> <li>Dedicate extended time to collaborative teams (e.g., in-service days, assemblies, etc.)</li> <li>Identify in which order school improvement needs and topics will be addressed during collaboration time</li> </ul>	<ul style="list-style-type: none"> <li>Establish guidelines related to the use of protocols</li> <li>Use student performance data, which will be the focus with which to improve teaching and learning</li> <li>Create a schedule in which data analysis is embedded in collaborative time</li> <li>Monitor (administrators) collaborative teams by collecting and providing immediate feedback on agendas, activities, and outcomes of meetings</li> </ul>	<ul style="list-style-type: none"> <li>Use student performance data, which will be the focus with which to improve teaching and learning</li> <li>Monitor (administrators) collaborative teams by collecting and providing immediate feedback on agendas, activities, and outcomes of meetings</li> <li>Dedicate extended time to collaborative teams (e.g., in-service days, assemblies, etc.)</li> <li>Evaluate collaborative teams using student performance, observation data, and input from specialists to determine effectiveness and make adjustments for 2012–13</li> </ul>	<ul style="list-style-type: none"> <li>Use student performance data, which will be the focus with which to improve teaching and learning</li> <li>Monitor (administrators) collaborative teams by collecting and providing immediate feedback on agendas, activities, and outcomes of meetings</li> <li>Dedicate extended time to collaborative teams (e.g., in-service days, assemblies, etc.)</li> <li>Evaluate collaborative teams using student performance, observation data, and input from specialists to determine effectiveness and make adjustments for 2012–13</li> </ul>
<b>Instructional Rigor</b>	<ul style="list-style-type: none"> <li>Align instruction with P–12 Common Core Learning Standards</li> <li>Develop a shared understanding of instructional rigor through collaborative curriculum planning, design, and/or redesign</li> <li>Provide professional development for teachers in higher-order thinking pedagogy in the classroom and ways to differentiate, Universal Design for Learning and/or Sheltered Instruction Observation Protocol</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate higher-order thinking practices into teacher collaboration time</li> <li>Monitor (administrators) higher-order thinking strategies via classroom observations, lesson plans, and review of student tasks and assessments</li> <li>Develop common assignments through teacher collaboration that ask students to perform rigorous and authentic tasks</li> <li>Develop common assessments, through teacher collaboration, that include rigorous and authentic summative assessment tasks</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate higher-order thinking practices into teacher collaboration time</li> <li>Monitor (administrators) higher-order thinking strategies via classroom observations, lesson plans, and review of student tasks and assessments</li> <li>Monitor (administrators) implementation using student achievement results on common formative and summative assessments</li> <li>Provide professional development for teachers in high-quality feedback</li> <li>Incorporate high-quality feedback into curriculum documents and lesson plans</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate higher-order thinking practices into teacher collaboration time</li> <li>Monitor (administrators) higher-order thinking strategies via classroom observations, lesson plans, and review of student tasks and assessments</li> <li>Provide professional development for teachers in higher-order thinking pedagogy in the classroom and ways to differentiate, Universal Design for Learning and/or Sheltered Instruction Observation Protocol</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate higher-order thinking practices into teacher collaboration time</li> <li>Monitor (administrators) higher-order thinking strategies via classroom observations, lesson plans, and review of student tasks and assessments</li> <li>Monitor implementation using student achievement results on common formative and summative assessments</li> <li>Revise curriculum maps (lesson plans) and formative and summative assessments, and make adjustments for 2012–13</li> <li>Revisit professional development, and make adjustments for 2012–13</li> </ul>
<b>Systemic Academic Interventions</b>	<ul style="list-style-type: none"> <li>Establish a team structure, routines, and procedures for making decisions</li> <li>Select evidence-based intervention programs and/or strategies for each tier</li> <li>Determine assessments to be used (formal and informal)</li> <li>Establish a progress monitoring timeline</li> <li>Set explicit rules to decide when students will move in, out of, or within interventions</li> <li>Identify screening instrument(s) for identifying students for interventions (using data)</li> <li>Establish participation criteria</li> </ul>	<ul style="list-style-type: none"> <li>Establish a schoolwide schedule for assessments and screening (using data)</li> <li>Develop record-keeping system for student progress that includes communication to stakeholder</li> <li>Establish a benchmark for performance</li> <li>Create multitiered “entry points”</li> <li>Determine method for delivery of service, duration, and frequency of service</li> <li>Communicate academic interventions and support program to stakeholders (e.g., teachers, students, parents, AIS coordinator)</li> </ul>	<ul style="list-style-type: none"> <li>Review student assessment data (formal/informal) to make student placement decisions</li> <li>Communicate student progress to stakeholders</li> <li>Make necessary adjustments to student placement within tiers of service</li> </ul>	<ul style="list-style-type: none"> <li>Review student assessment data (formal/informal) to make student placement decisions</li> <li>Communicate student progress to stakeholders</li> <li>Make necessary adjustments to student placement within tiers of service</li> </ul>	<ul style="list-style-type: none"> <li>Review student assessment data (formal/informal) to make student placement decisions</li> <li>Communicate student progress to stakeholders</li> <li>Review and/or revise intervention services to determine program effectiveness</li> <li>Survey students and parents to determine the level of satisfaction with programs and engagement with AIS</li> </ul>

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