

School of Diplomacy

FINAL REPORT



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

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Contents

Introduction	1
About This Report	1
About School of Diplomacy.	1
Audit Process at School of Diplomacy.	2
Key Findings	3
Critical Key Findings	3
Additional Key Findings	4
Recommendations	5
Overview of Recommendations.	5
Recommendation 1: Systemic Academic Interventions.	7
Recommendation 2: Professional Development	12
Recommendation 3: Curriculum Documents	16
Recommendation 4: Instructional Rigor.	21
References	25

Introduction

About This Report

This final report is the result of an external school curriculum audit (ESCA) of School of Diplomacy conducted by Learning Point Associates, an affiliate of American Institutes for Research. This audit was conducted in response to the school being identified as in need of improvement under the New York State Education Department differentiated accountability plan, pursuant to the accountability requirements of the Elementary and Secondary Education Act, as reauthorized by the No Child Left Behind (NCLB) 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 School of Diplomacy

School of Diplomacy (X370) is located in New York City, in the Bronx (in Community School District 11). The school serves approximately 445 students in Grades 6–8, and in special education classes. Eight percent of the students are English language learners, and 18 percent are identified as students with disabilities. School of Diplomacy shares a school building with the Globe School for Environmental Research (Grades 6-8), the Forward School (Grades 6-8), and the Young Scholars Academy of the Bronx (Grades 6-8), each with its own floor(s) and sharing common spaces like the auditorium, library, gymnasium, and cafeteria.

In 2009–10, School of Diplomacy did not make adequate yearly progress (AYP) in English language arts (ELA) for all students, black or African-American subgroup, Hispanic or Latino subgroup, students with disabilities, and economically disadvantaged students. In 2010–11, School of Diplomacy's state accountability status was designated as "Improvement (Year 1)."¹ Because the school was designated as in need of improvement, it participated in the ESCA. Data collection for the audit took place from February through June of 2011.

The School of Diplomacy was opened in 2007; during that first year, only sixth-grade students attended. The following year (2008–09), seventh grade was added. The school reached its full capacity as a 6–8 school in the 2009–10 school year.

Conversations with the principal during the co-interpretationSM indicated that some of the systems and structures that had worked well in the school when it housed one grade were not necessarily appropriate or successful when the school was at full capacity.

Co-interpretation participants at School of Diplomacy found the process to be helpful in identifying areas in need of improvement.

¹<https://www.nystart.gov/publicweb-rc/2010/8b/AOR-2010-321100010370.pdf>. Accessed on March 3, 2011.

Audit Process at School of Diplomacy

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 School of Diplomacy. From these data, Learning Point Associates prepared a series of reports for the school's use.

These reports were presented to the school at a co-interpretation meeting on May 17, 2011. During this meeting, eight stakeholders from the School of Diplomacy 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 School of Diplomacy.

Key Findings

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

Critical Key Findings

CRITICAL KEY FINDING 1:

There are limited academic support services for at-risk students.

Critical Key Finding 1 is supported by information from school interviews, teacher survey results, and review of school-submitted documents. According to school documents, the school provides programs in the classroom, during Saturday Academy, or during the afterschool program. However, programs and courses to address academic deficiencies are limited due to space restrictions. An interview respondent stated that an academic intervention services (AIS) push-in teacher provides in-class services in classes where students demonstrate academic deficiencies. When asked about school intervention services, teachers had an unfavorable opinion. Many teachers (58 percent) were minimally to moderately likely to share their concerns with administrators about students who need to be identified for services. Further, 81 percent of teachers responded that they believed it was minimally to moderately likely for the school to systematically identify the kinds of academic support the students need.

CRITICAL KEY FINDING 2:

The school has a non-coherent professional development plan.

Critical Key Finding 2 is supported by information from school interviews, teacher survey results, and review of school-submitted documents. Preliminary feedback from the Quality Review that occurred March 2 and 3, 2011, indicated that the school needs to strengthen its professional development and teacher collaboration. Teacher survey results echoed that assessment of the Quality Review. More than half of the teachers (62 percent) strongly disagree or disagree that professional development is coherently focused; professional development includes enough time to think about, try, and evaluate new ideas; and professional development helps teachers address the needs of their students. Teachers also reported mixed responses to the professional development they received on several topics perceived to be closely tied to school needs (such as teaching students with special needs and teaching students several years below grade level).

CRITICAL KEY FINDING 3:

The ELA curriculum is ambiguous; there are not clear directions or ties to the standards.

Critical Key Finding 3 is supported by information from the review of school-submitted documents. Submitted ELA curriculum documents include topics that should be taught in each grade level by month. The ELA written curriculum describes what is to be taught at each grade in the areas of reading, writing, grammar, and vocabulary. The curriculum does not consistently reference how it is aligned with the standards, especially in regard to the monthly topics. Additionally, although the curricular documents include suggested or possible texts for reading instruction, there are no references to specific writing or grammar books or materials.

CRITICAL KEY FINDING 4:

There is a deficit in the delivery of rigorous instruction and the use of feedback to students.

Critical Key Finding 4 is supported by information from classroom observations. Ten classrooms (55 percent) employed memorization of facts or learning procedures rather than students solving problems on their own. There were few to no opportunities for higher-order thinking, such as creating new ideas, self-evaluation, or evaluation. No observed classrooms showed consistent opportunities for students' use of higher-level thinking, such as analysis, creation, and evaluation; opportunities for students to engage in complex tasks or problem-solve; or teacher modeling, encouraging, and providing strategic opportunities for students to develop thinking, self-evaluation, and planning skills.

Positive Key Findings

POSITIVE KEY FINDING 1:

Interdisciplinary enrichment is evident across the curriculum.

Positive Key Finding 1 is supported by information from school interviews and a review of school-submitted documents. Interviews indicated that sixth and seventh graders have two periods a week of public speaking. According to the Comprehensive Educational Plan (CEP) for School of Diplomacy, "public speaking" is an (extended) structured ELA time with a focus on listening, speaking, reading, and writing skills aligned with Common Core ELA standards. Documents further suggest that teachers in every subject support ELA and math goals. This conclusion is further supported through interview responses stating that the school offers elective courses in technology, public speaking, Spanish, finance, and art, all of which (according to co-interpretation participants) are intended to further support core curricular activities.

POSITIVE KEY FINDING 2:

There is evidence of teacher collaboration that is supported by the administration to a moderate or great extent.

Positive Key Finding 2 is supported by information from school interviews, teacher survey results, and review of school-submitted documents. According to an interviewee, teachers meet regularly in grade-level teams and content-area teams to collaborate. This collaboration was evidenced by agendas and artifacts from the meetings of several teams. These artifacts include Teacher Monthly Review sheets that were completed by teachers. Further, teacher survey results showed that the majority of teachers (78 percent) believe the administration supports teacher collaboration moderately or to a great extent.

POSITIVE KEY FINDING 3:

Positive behavioral interventions and supports (PBIS) is implemented to various degrees.

Positive Key Finding 3 is supported by information from school interviews, teacher survey results, and review of school submitted documents. Interviews and documents both indicated that there is a positive behavior system in place within the school. However, teacher survey results suggested that there is inconsistency in staff perceptions of a school behavior plan. Twenty-five percent of teachers do not agree that the school has a behavior plan, and 40 percent of teachers use behavior strategies that are not consistent with classrooms throughout the school.

Recommendations

Overview of Recommendations

As detailed in the Key Findings section, participants at the School of Diplomacy co-interpretation meeting prioritized some key findings that highlighted the strengths of the school (Positive Key Findings 1, 2, and 3), and other key findings that focused on areas in which the school can improve (Critical Key Findings 1, 2, 3, and 4).

Focus of Recommendation 1. Recommendation 1 addresses issues related to a holistic academic intervention system, which was identified in Critical Key Finding 1.

Focus of Recommendation 2. Recommendation 2 discusses professional development, which was identified in Critical Key Finding 2.

Focus of Recommendation 3. Recommendation 3 addresses Critical Key Finding 3, which identified the ELA curriculum as an area for improvement.

Focus of Recommendation 4. Recommendation 4 discusses instructional rigor, which was identified in Critical Key Finding 4.

After the co-interpretation meeting, the principal of School of Diplomacy specifically requested that Learning Point Associates write a recommendation to speak to Critical Key Finding 4, related to instructional rigor.

THE FOUR RECOMMENDATIONS

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

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. Develop and implement a professional development plan that is aligned to school goals and focused on subject area content. Professional learning opportunities should be aligned to the following areas identified during the co-interpretation phase of the ESCA process: academic interventions, curriculum development, and/or rigorous instruction.
3. Ensure that the elements of guiding curricular documents are consistent across grades and subject areas and are aligned vertically and horizontally to eliminate gaps and overlaps in coverage of content in order to ensure that all students have leaning experiences. Include in the guiding documents materials for the effective delivery of instruction and modifications and adaptations for struggling and diverse learners.
4. Implement instructional strategies that increase opportunities for higher-order thinking, analysis and problem solving, and deeper content understanding.

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

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

Recommendation 1: 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 is defined by New York State Education Department (2008) 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 were 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 (Prewitt & Mellard, 2010), 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.” 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: Providing 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/>

National Research Center on Learning Disabilities: *Tiered Service-Delivery Model* (Webpage)

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 make the determination, based on individualized circumstances, of 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 in, out, 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 researched-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 method for delivery of service (e.g., pull-out 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 at risk. A second tier of interventions and progress monitoring were “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).

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. 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 the 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 the 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: Professional Development

Develop and implement a professional development plan that is aligned to school goals and focused on subject-area content. Professional learning opportunities should be aligned to the following areas identified during the co-interpretation phase of the ESCA process: academic interventions, curriculum development, and rigorous instruction.

LINK TO RESEARCH

Research indicates that professional development for teachers is most effective and boosts student achievement when it is embedded in teachers' daily work and sustained, rather than a one-time workshop model (National Staff Development Council, 2001; Steiner, 2004; Wei, Darling-Hammond, Andree, Richardson & Orphanos, 2009; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Effective professional development also provides teachers with opportunities for collaboration, coaching, and peer observation, which allows them to be actively involved in their own development and more frequently practice learned skills (The Center for Comprehensive School Reform and Improvement, 2006; Joyce & Showers, 2002). In addition, professional development is most effective when it is directly connected to teacher practice and focuses on content (National Staff Development Council, 2001; Wei et al., 2009; Yoon et al., 2007). Content areas should align with school improvement needs and goals to target improvement to those areas.

Schools can improve teacher practice and student achievement by refining the process by which professional development is offered; ensuring that the professional development is job embedded, sustained, and allows for active teacher participation; and focusing the development on teacher practice and content (Wei et al., 2009; Yoon et al., 2007).

IMPLEMENTATION CONSIDERATIONS

Creating a professional development plan that addresses both student learning and teacher learning can be a complex task. Professional learning activities should be designed with student achievement as both the impetus and outcome. School improvement goals should be directly related to a review of student achievement data. Subsequently, teacher learning activities should be directly related to the goal of improving student outcomes. At minimum, successful schoolwide professional development plans include the following sequential steps:

1. Analyze student data and/or conduct a needs assessment.

Review student learning data by using an item analysis of state test results, interim assessment results, school quality review, or ESCA report. Identify areas of low proficiency, slow learning progress, drops in proficiency between grades, and subgroup and gender differences.

2. Select goals for student learning.

Identify specific, measurable, achievable, relevant, and time-sensitive (SMART) learning goals for students.

QUICK LINKS: Online Sources for More Information

High-Quality Professional Development for All Teachers: Effectively Allocating Resources (Publication)

<http://www.tqsource.org/publications/HighQualityProfessionalDevelopment.pdf>

Professional Development for Educators (Webpage)

<http://www.publicimpact.com/teachers-leaders/professional-development-for-educators>

3. Select professional development goals for teacher learning.

Identify specific and measurable teacher learning goals, directly related to student learning goals.

4. Select professional development activities to meet goals.

Determine what activities will best meet teachers learning needs (e.g., workshops, coaching, collaborative inquiry, intervisitation). Consider available resources (time, money, materials) and a range of professional development activities and match with the needs of adult learners.

5. Implement the professional development activities.

Ensure that teachers have time and resources (e.g., research, articles, video clips, coaches, and opportunities to observe master teachers) for professional development. Provide teachers with clear expectations for integration into their pedagogical practice, structures and protocols for activities, and opportunities for reflection.

6. Evaluate the impact of professional development.

Develop an evaluation plan. Identify what to measure, how to measure it, and when to measure it. Create a frequent and ongoing schedule of evaluation.

7. Modify the professional development plan.

Determine the impact of the professional development activity. If the activity achieves or fails to achieve its desired results, modify the plan accordingly.

For practical applications, refer to the “Sample Professional Development Plan” on the following page.

Sample Professional Development Plan

Following is a sample professional development plan adapted from *Apply What You Know: Designing Effective Professional Development* (Steiner, 2009). It indicates the specific actions taken by the district, which show alignment to school goals and a focus on subject-area content.

Analysis of Data. Data analysis revealed a “significant drop in math proficiency between 4th and 5th grade.” Further review of test item analysis indicated that students did not demonstrate proficiency in fractions.

Student Learning Goals. The district determined the following goal for students: “At the end of the third quarter of fifth grade, 75% of all students will pass an end-of-unit test on fractions.”

Professional Development Goals for Teachers. The district determined the following goal for teachers: “At the end of the spring semester, all fifth grade teachers will demonstrate an improved ability to teach fractions as measured by their implementation of new instructional strategies and improved student learning.”

Professional Development Activities. The district determined the following professional development activities to meet its goals: “In the fall, before teachers begin the fractions unit, 5th grade math teachers at each school will meet twice a month to discuss and share new curriculum materials related to fractions and design joint interim assessments to measure student progress. Teachers will have ongoing assistance of a math instructional coach. In the summer, [the district will] review schedules to make sure fifth grade teachers have common planning time to meet. [The district will] provide lead teachers and/or principals with curriculum materials and the assistance of an instructional coach to guide implementation.”

Evaluating Impact. Measures of evaluation included “(1) percentage of students meeting objectives” as measured by “student test scores on end of unit assessment” and “(2) staff knowledge” and pedagogy, measured by regular and ongoing observations conducted by the school’s instructional leaders.

DOING WHAT WORKS: Examples From Real Schools

Designing a Long-Term Professional Development Plan

When designing and implementing long-term professional development plans, professional learning activities and goals should be rolled out throughout the school year. Following is a sample professional development plan for Paradise Valley Middle School. Based on a needs assessment conducted by the school, the percentage of black students who met or exceeded proficiency in math was as much as 20 percent lower than the percentage of white students who met or exceeded proficiency in math. In reading, that percentage was as much as 30 percent lower.

PARADISE VALLEY MIDDLE SCHOOL PROFESSIONAL DEVELOPMENT PLAN

Goal 1: Close the achievement gap between black and white students in reading and mathematics.

Objectives: Sixth-, seventh- and eighth-grade students' achievement gap in reading and mathematics will be reduced by 5% as measured by district formative assessments.

Teacher Objective: All teachers will be able to plan and implement research-based instruction in their content area as measured by principal and school improvement team classroom walk-throughs conducted in the spring.

Objective 1: All teachers will plan research-based instruction in their content areas.

Strategies/Actions	Person Responsible	Measurement of Accomplishment	Resources Needed	Due Date
Daily interdisciplinary team meetings devote at least two days a week to jointly planning research-based instruction lesson plans or units.	Team leader creates agendas to include significant time for this work.	Each team generates and submits at least four lessons or one unit each grading period.	Leveled reading materials, project-based materials, access to computer lab	Dec and June
Content-area teachers meet twice a week to study TIMSS, analyze test data to determine which mathematics objectives had not been met by a majority of students.	Team leader creates agendas and requests materials from district staff development or curriculum department.	Presentation about TIMSS and research-based instruction to other teachers during professional development time. Analysis of student learning results and lists of difficult objectives.	Disaggregated mathematics scores by objective TIMSS book and study TIMSS videotapes	January: Analysis of tests April for presentation

Objective 2: All teachers will implement research-based lessons in their classrooms.

Strategies/Actions	Person Responsible	Measurement of Accomplishment	Resources Needed	Due Date
Each team sets an implementation timeline.	Team Individual Teacher	Team members submit written debriefing of lessons. Classroom walk-through data and analysis	Debriefing protocols	

Excerpted from Ozarks Unlimited Resources Educational Services Cooperative. (2008). Effective professional development. In *A toolkit for quality professional development in Arkansas* (pp. 103-185). Harrison, AR: Author. Retrieved June 24, 2011, from http://www.oursc.k12.ar.us/default_images/index/pd_toolkit/pdtoolkitchapter3.pdf

Recommendation 3: Curriculum Documents

Ensure that the elements of guiding curricular documents are consistent across grades and subject areas and are aligned vertically and horizontally to eliminate gaps and overlaps in coverage of content in order to ensure that all students have optimal learning experiences. Include in the guiding documents materials for the effective delivery of instruction and modifications and adaptations for struggling and diverse learners.

LINK TO RESEARCH

A curriculum is a school's written specification for what students should know, understand, and be able to do as a result of instruction and for how content is distributed and sequenced over time. Curriculum has three components: the written, the taught, and the tested (English, 2000). "The curriculum guide should indicate what should be taught (and also what will or should be learned), how what is to be taught or learned will be assessed, and by which instrument and when, and curricular objectives should be keyed to the textbooks teachers may use to implement the designated curricular objectives (by page number)..." (English, 2000, p. 49). English goes on to write that other resources, such as videos, worksheets, and so forth, should be included so that "in this way, teachers know very quickly not only where various curricular objectives can be located in all of the textbooks but also what other resources contain the curricular objectives that must be taught and learned." Finally, "there must be some sort of time designation within the curriculum guide as to how much stress (in some convenient unit of time) is required to teach the designated objectives (or topics, subjects, themes, facts, processes, or the like)" (English, 2000, p. 50). Hale notes that "since curriculum maps are oftentimes accessed, read and discussed without the map writer or writers present, consistency in wording, format and intra-alignment contribute significantly to the quality and clarity regarding accurate map data interpretation throughout a learning organization" (Hale, p. 39).

As identified in Marzano's (2003) meta-analysis, a guaranteed and viable curriculum is the most important school-level factor impacting student achievement. Marzano (2003) defines *guaranteed and viable* as "a combination of 'opportunity to learn' and 'time'" (p. 22). Of the school-level factors, "opportunity to learn" has the strongest apparent link to student success. Opportunity to learn is related to the extent to which a school (1) clearly articulates its curriculum, (2) monitors the extent to which teachers cover the curriculum, and (3) aligns its curriculum with assessments used to measure student achievement. Time is a crucial element because it determines viability. "The content that teachers are expected to address must be adequately covered in the instructional time teachers have available" (Marzano, 2003, p. 24). Whitehurst (2009) found that the effects of curriculum on student achievement are larger, more certain, and less expensive than the effects of popular reforms such as common standards, charter schools, and reconstituting the teacher workforce. He recommends that curriculum have a prominent place in the education reform agenda.

Much has been written about the need for curricular alignment with standards or *external* alignment. Just as important is *internal* alignment, alignment within subject areas and across grade levels so that learning experiences are cumulative, coordinated, and support subsequent student learning. The following definitions are helpful:

QUICK LINKS: Online Sources for More Information

Vertical Alignment: Ensuring Opportunity to Learn in a Standards-Based System (Publication)

<http://www.centerforcsri.org/files/CenterIssueBriefAug09.pdf>

- **Horizontal alignment:** The extent to which the standards, content/materials, instructional strategies, and assessments are delineated and coordinated within a single grade level or course.
- **Vertical alignment:** The extent to which the standards, content/materials, instructional strategies, and assessments used in one grade level or course are designed to support student learning and success in subsequent grade levels and courses.

“Curriculum mapping is a strategy that has proven useful for helping teachers engage in the alignment process (Kallick & Colosimo, 2009). Mapping provides authentic data that can be used for reviewing, revising, and renewing the written curriculum. For example, a diary map is developed by an individual teacher after instruction, usually on a monthly basis (Jacobs, 1997). Diary maps can be shared among teachers and compared with the district’s written curriculum” (Learning Point Associates, 2009, p. 5). Diary or journal maps record the content of what was actually taught.

Janet Hale (2008) defines three additional types of curriculum maps in *A Guide to Curriculum Mapping: Planning, Implementing, and Sustaining the Process*. Each type addresses content that is planned to be covered.

- **Projection maps:** Completed monthly by individual teachers with the content and learning experiences that teachers expect to deliver.
- **Consensus maps:** Completed monthly or by grading period. Developed at a school site with two or more teachers, these maps contain agreed-upon compulsory content for a subject area or discipline.
- **Essential maps:** These maps are developed for districtwide use and are typically developed by a committee of representatives from all schools that includes teachers as well as specialists and administrators. The content of these maps address the mandatory content and learning experiences for a course or series of courses. (Hale, 2008, p. 12)

At the secondary level, vertical and horizontal alignment requires that educators consider the multiple routes to graduation that students may take. It is crucial to ensure that all courses provide students with the necessary learning experiences to be successful, regardless of which pathway to graduation a student takes or which courses in a given subject area students enroll in. For this reason, regular and ongoing reflection and discussion among teaching staff is necessary for sustained and successful efforts to vertically and horizontally articulate curriculum.

In her book, *Mapping the Big Picture: Integrating Curriculum and Assessment K–12*, Heidi Hayes Jacobs (1997) outlines the following four components for curriculum mapping:

- **Breadth:** The number of topics included at each grade level identifies a curriculum’s breadth. Analysis of breadth is important, given the limited number of hours in a school year; greater breadth implies less depth of instruction.
- **Duration:** The length of time (number of grades) topics are retained in the curriculum defines *duration*. Analysis of duration is important because it may contribute to broad curricula or one where topics are retained, recycled, reinforced, or reintroduced rather than being dropped from the curriculum. This duration, in turn, has implications for rigor. More advanced topics are crowded out or not covered in depth.

- **Flow:** The interplay between breadth and duration is how topics flow into or out of the curriculum. The number of topics, placement within the curriculum, and duration of topics are central to flow. Analysis of flow is important because flow is central to the goal of meeting state standards by moving students through material. When flow of the curriculum is blocked by too many topics or excessive duration, mastery of material is difficult to obtain.
- **Rigor:** The depth of understanding of complex content. It is hard to determine what is developmentally appropriate within local culture. Most educators would agree that the goal of a rigorous curriculum is to push students to a higher level of proficiency as they move from Grade 9 through Grade 12. Ultimately, a rigorous curriculum focuses on appropriately challenging topics and attends to the breadth, duration, and flow by dropping less challenging topics as students progress through the grades.

IMPLEMENTATION CONSIDERATIONS

The School of Diplomacy should take the following steps to ensure that all student have the requisite learning experiences to adequately prepare them for Regents exams, successful graduation, and postsecondary success:

- 1. Determine the type of curriculum map best suited for the school: diary, projection, or consensus maps.**
- 2. Provide time and support (i.e. materials, training, guidance) for teachers to engage in initial map development.**
- 3. Decide on a common format for the maps and ensure the curriculum maps contain the following elements:**
 - Common Core State Standards
 - The content of instruction and the skills to be addressed
 - The timeframes for instructional delivery
 - Differentiated instructional methods used to meet all students' learning needs as well as modifications and adaptations used to meet the needs of diverse learners.
 - Instructional and curricular materials, including sample lesson plans
 - Formative and summative assessment tools and techniques
- 4. Provide time for teams of teachers, specialists, and administrators to review the maps and to identify gaps and overlaps in coverage across grade levels and within subject areas. Then share and discuss findings with all faculty members.**
- 5. Develop a plan for eliminating gaps and redundancies. Determine a timeline for immediate revisions as well as a timeline to address issues that need additional time for planning and research.**
 - Develop and execute a system to monitor the implementation of the curriculum within the school.
 - Develop a plan for the use of monitoring data to annually reflect on and evaluate the effectiveness of the curriculum. Intersperse times for teams to reflect on data throughout the year.

The Path to Success: Developing Curriculum Maps

Curriculum maps should be used as tools for educators to communicate about and plan instruction and evaluate internal and external curriculum alignment. Once developed, curriculum maps should be examined and revised regularly to identify and eliminate unneeded redundancies, gaps, and weaknesses. Following are steps to consider when developing curriculum maps:

1. Provide opportunities for teachers to work in collaborative grade-level and/or content-area teams and identify what they are currently teaching through a curriculum mapping process.
2. Identify redundancies and gaps between what teachers should be teaching and what they are teaching. Determine solutions for addressing the redundancies and gaps.
3. Evaluate the resulting curriculum based on the following criteria:
 - **Alignment.** The curriculum provides the following types of alignment:
 - Alignment to the Common Core State Standards (Common Core State Standards Initiative, 2010), and local and state assessments.
 - Horizontal alignment—the extent to which the standards, content/materials, instructional strategies, and assessments are delineated and coordinated within a single grade level or course.
 - Vertical alignment—the extent to which the standards, content/materials, instructional strategies, and assessments used in one grade level or course are designed to support student learning and success in subsequent grade levels and courses.
 - **Quality.** The curriculum provides sufficient activities addressing the learning goals to ensure that all students can learn; activities reflect best practice.
 - **Rigor.** The curriculum requires students to engage in inquiry of disciplinary concepts and construct knowledge rather than simply reproducing content (Manning et al., 2007).
 - **Relevance.** The curriculum engages learners in authentic tasks and connects to students' daily lives and to their future lives and careers. Relevancy is also reinforced when students are able to make connections between content areas (Manning et al., 2007).
4. Continuously review the curriculum based on the following information:
 - Data from state and local assessments
 - Analysis of student work to determine any weaknesses in instruction or curriculum
 - Information gathered from classroom walk-throughs
 - Strength of the alignment between objectives, instructional strategies, and assessments
 - Reflection on and examination of curriculum maps
 - Research on student learning
5. Monitor and revise the curriculum to reflect the findings of the review process.
6. Provide professional development to ensure that the curriculum includes evidence-based practices and is implemented with fidelity.

Curriculum Alignment Efforts at an Urban Middle School

The process to ensure that a rigorous, relevant, and aligned curriculum is fully articulated and understood by teachers can take many forms, but there are some common steps and practices that characterize successful efforts. This vignette represents best practices found in the research literature and actual experiences of teachers and curriculum specialists.

Metropolis Middle School (MMS) is an urban school* serving a diverse population of students with nearly 80 percent qualifying for free or reduced-price lunch. After a school-based team analyzed achievement trends from annual and benchmark assessments and analyzed previously developed diary maps, there was a realization that there were gaps in the curriculum at certain grade levels and a lack of rigor in some areas. Teachers at MMS and other district schools had previously engaged in diary mapping. It was decided that it was time to take the effort to the next logical step of developing consensus maps. The district curriculum coordinator coordinated the logistics and provided leadership and guidance for the work supporting the renewed curriculum initiative.

The initiative began in the summer months with teams of subject-area teachers meeting five days a week for half days, during the course of six weeks. The first step was to spend several days “unpacking” the standards. This step was crucial for developing a common language and understanding of the standards. Teachers and content specialists engaged in in-depth discussions about the cognitive demand of the standards for specific grade levels. The teams analyzed what the standards required students to do (i.e. identify, evaluate, synthesize, compare) and how similar content standards differed among grade levels. Small groups examined the diary maps that had been previously developed. This initial step led to many insights by classroom teachers. A sixth-grade English language arts (ELA) teacher indicated that she had not been aware of how ELA content standards for author’s purpose differed from sixth to eighth grade. An eighth-grade math teacher shared an “ah-ha” moment when he realized that he needed to spend more time on developing his students’ conceptual understanding of algebraic principles rather than the procedural practice he had been emphasizing.

Grade-level professional learning committees (PLCs) carried on the curriculum initiative throughout the school year. The PLCs regularly examined student work, discussed evidence of student learning, and reflected on where in the curriculum student learning could be reinforced. When asked about the outcomes and successes of the initiative, leaders described beneficial outcomes such as:

- Deeper understanding of standards and the cognitive demand made of students.
- Increased awareness of weaknesses in subject area coverage.
- Greater awareness of how the standards articulate and build on student knowledge from year to year.

* Metropolis Middle School is an amalgamation of schools and practitioners’ experiences.

Recommendation 4: Instructional Rigor

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

LINK TO RESEARCH

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

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

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

There are several steps to ensure that students are being asked to complete this type of intellectually challenging work, which increases test scores and improves performance on authentic assessment measures as well. Newmann et al. (2001) define *authentically challenging intellectual work* as the “construction of knowledge, through the use of disciplined inquiry, to produce discourse, products, or performances that have value beyond school” (p. 14).

Daggett (2005) agrees, stating that all students should be pushed “to achieve academic excellence, which ultimately boils down to applying rigorous knowledge to unpredictable, real-world situations, such as those that drive our rapidly changing world” (p. 5). Disciplined inquiry, which occurs in the classroom, requires that students “(1) use a prior knowledge base; (2) strive for in-depth understanding rather than superficial awareness; and (3) express their ideas and findings with elaborated communication” (Newmann et al., 2001, p. 15).

QUICK LINKS:

Online Sources for More Information

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

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

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

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

IMPLEMENTATION CONSIDERATIONS

1. Cultivate schoolwide high expectations for students.

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

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

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

3. Develop examples of authentic intellectual work.

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

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

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

High Scoring Writing Assignment

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

Commentary

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

Low Scoring Writing Assignment

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

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

Commentary

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

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

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

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

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 are also 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.

Description excerpted from the *Doing What Works* website at http://dww.ed.gov/media/CL/OIS/TopicLevel/case_plainwell_71508.pdf. This information is in the public domain.

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Suggestions for Further Reading

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INSTRUCTIONAL RIGOR

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