Curriculum Alignment Project Final Report

Lessons From an NYCDOE High School & CUNY College Faculty Collaborative

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Executive Summary

The Curriculum Alignment Project was conceived and implemented as part of the Graduate NYC! initiative. This initiative is a collaborative effort, funded by the Bill & Melinda Gates Foundation, that brings together the City University of New York (CUNY), the NYC Department of Education (NYCDOE), the NYC Mayor’s Office, and a range of community partners to increase college readiness and success in NYC.

National and local data indicating low rates of college readiness and completion point to the need for improved alignment between high school and college curricula. As part of the Graduate NYC! initiative, cross-institutional conversations led to the development of a plan to address this need through a new faculty collaborative called the Curriculum Alignment Project. This project brought faculty from CUNY together with teachers and professional developers from NYCDOE public high schools. From the spring through the fall of 2012, approximately 25 participating educators collaborated to develop curricular units in literacy and math that were aligned with the Common Core State Standards (CCSS), and that were progressive through high school, developmental education, and introductory college-level courses.

The following report includes a full account of the Curriculum Alignment Project, from planning through implementation. More importantly, it offers a reflection on the project’s process through an assessment of its strengths and challenges. A major success that emerged was the opportunity that the collaboration afforded participants to improve their teaching practices, and to gain a broader perspective on student and teacher experiences at both the high school and college levels. Collaborative work itself was most successful when it followed a clear, well-supported process, and focused on a specific, authentic task that could be connected easily to work with students in the classroom. Finally, organizational support and coordination of the project was crucial to its progress.

Challenges encountered included the recruitment of committed participants with sufficient availability. In addition, the complexity of high school-to-college alignment—with respect to curriculum content, pedagogy, and the political context—made the process of creating aligned units difficult. Insufficient time was also a major obstacle to accomplishing the substantive goals of the project.

The following major recommendations emerged for the future of high school-to-college curriculum alignment work:

1. Create opportunities for dialogue across high schools and colleges.
2. Build collaborative structures that lead to systemic change.
3. Allow sufficient time for the collaborative process.
4. Examine student work with high school and college faculty.

Learning from the successes and challenges of the Curriculum Alignment Project can help CUNY and the NYCDOE both improve and create opportunities for future alignment work that is deeply meaningful, and that has the potential to be broadly adopted. Beyond NYC, administrators and educators from other regions may find valuable insight into the direction of their own collaborative work by learning about this project and hearing from its participants. Hence, the lessons learned from this collaborative curricular effort can contribute to the evolving discussion of best practices in cross-system collaboration within the college readiness and success community.
Table of Contents

1. Introduction .................................................. Page 4

2. A Collaborative Model ........................................ Page 6

3. The Model In Practice ......................................... Page 8

4. Successes & Challenges .................................... Page 11

5. Recommendations for the Future ......................... Page 15

❖ Appendices:
  o A: Facilitator Biographies
  o B: Participant List
  o C: Resource List
  o D: Unit Sharing Protocol
Introduction

National and Local Context

The need for improved rates of college readiness and success is apparent in both the high percentage at which entering college students are placed into developmental education (or remedial, pre-college-credit) courses, and the relatively low rates at which students graduate from college. Nationally, at least 50% of students enrolling at community colleges, and approximately 20% of those matriculating at 4-year schools, are required to take some form of developmental education.¹ The challenges of being underprepared for college-level work, as researchers focusing on developmental education have noted, are compounded by the difficulties students face once enrolled in college, where the chances that they will complete their developmental education course sequence, and eventually graduate with a degree, are slim.² In New York City, the story is no different, particularly at the community college level. Of first-time freshmen entering a CUNY community college in the fall of 2011, 82.0% needed remediation in at least one area (math, reading, or writing). Of those students who entered an Associate Degree program in the fall of 2008, only 11.4% had graduated within 3 years.³

One key way to improve college readiness, and thereby decrease the number of students placed into developmental education and increase the number of students completing college, is to improve alignment between high school and college curricula. Recognition that greater rates of student persistence and completion benefit all stakeholders—including students, teachers, and administrators—has led to the formation of local collaborations across the country that bring high schools and colleges together to align academic expectations and curricula. Examples include the Cal-PASS project and the EPIC South Carolina Course Alignment Project, both of which bring high schools together with 2- and 4-year colleges to improve alignment.⁴

Recently, an additional impetus for collaboration between K-12 and higher education systems has been provided by the development and implementation of the Common Core State Standards (CCSS). Achieve, a national non-profit that convenes state leaders to advance a college and career ready agenda, has argued that “The adoption of the CCSS and the development of the common assessments provide an unprecedented opportunity for the postsecondary community to work with K-12 to demonstrate what being college ready means and to connect the dots between K-12 expectations and first-year, freshman college courses.”⁵ In NYC, the NYCDOE has been working with its schools to begin implementation of the CCSS, to achieve greater rates of college readiness in its graduates and to prepare it students and teachers for the transition from the New York State Regents exams to the forthcoming PARCC assessments. The scale of this implementation presents a particular challenge for the NYCDOE, which includes over 1,700 public schools serving approximately 1.1 million students across the five boroughs.⁶ In the winter and spring of 2011-12, instructional expectations around the CCSS set by the NYCDOE outlined that all students must engage in a rigorous, Common Core-aligned literacy and math task embedded within a well-sequenced curricular unit. The 2012-13 instructional expectations dictated that students must engage in multiple Common Core-aligned units of study

² Rutschow & Schneider, Unlocking the Gate; Grubb, “Understanding the ‘Crisis’ in Basic Skills”.
³ Analysis by CUNY Office of Institutional Research and Assessment (OIRA).
⁵ Achieve, Inc. Connecting the Dots: Postsecondary’s Role in Preparing K-12 Students.
across content areas. The instructional shifts necessitated by the CCSS and the focus on college and career readiness at the NYCDOE make conversation with CUNY, where approximately 40% of NYC DOE students will enroll in college, increasingly important.

In addition to implementation of the CCSS, initiatives at CUNY have both illuminated the need for, and made possible, opportunities for K-12 and university faculty collaboration. The CUNY Pathways to Degree Completion initiative, to come into effect in the fall of 2013, establishes a new system of general education requirements and transfer guidelines that will broadly align standards across a set of general education learning outcomes known as the CUNY “Common Core.” In addition, CUNY faculty and administrators are working to improve and align both the placement exams given to entering college students, and the exit assessments taken by students to pass out of developmental education courses. Like at the NYCDOE, it is worth noting the challenge of implementation at scale across CUNY, which is made up of 24 institutions serving approximately 540,000 students. Because 70% of the CUNY freshmen class will be made up of students coming from the NYCDOE, the tighter the connection is between the Common Core-aligned courses and assessments at the high school level and CUNY courses and assessments at the college level, the greater the likelihood that students will successfully transition between the two systems.

Finally, funding for collaborative initiatives like Graduate NYC!, where space for cross-institutional conversations are created and fostered, sets the stage for the development of a K-12–college faculty partnership that could tackle the challenges of high school to college alignment, and create solutions that could benefit faculty and students across the city.

The Origins of the Curriculum Alignment Project

During the 2010-11 academic year, Graduate NYC! brought together cross-institutional project teams to develop and carry out plans that would improve college preparation, transition, and completion in NYC. Project teams were organized around the following topics: Reading & Writing Proficiency, Math Proficiency, Transition Programs, External Awareness, Internal Advisement & Capacity, FAFSA & Financial Aid, and Data. Teams members included administrators and staff from CUNY, the NYCDOE, city agencies, and several NYC community-based organizations working in college transition.

A central recommendation that emerged from both the Reading & Writing and Math Proficiency Teams was to evolve these Teams into a new structure that would allow faculty from NYCDOE high schools and CUNY colleges to collaborate on academic expectations and curricular issues. This structure would operate on a small scale relative to the size of both institutions, but it would provide a space for educators to discuss college-ready standards and create examples of aligned curricula. The hope would be for this discussion to spark further conversation across the two systems about the changes needed to make the college transition smoother for students and faculty.

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8 Analysis by CUNY Office of Institutional Research and Assessment (OIRA).
10 CUNY. Retrieved from http://www.cuny.edu/about.html
11 Analysis by CUNY Office of Institutional Research and Assessment (OIRA).
A Collaborative Model

Planning

Once the recommendations for a K-12–college faculty collaborative were finalized, a cross-institutional leadership team came together to translate the idea into action. This leadership team was made up of the University Deans for Education and Undergraduate Studies at CUNY (who had chaired the original Graduate NYC! Math and Reading & Writing Proficiency Teams, respectively), and the Executive Director of the Office of School Programs & Partnerships at the NYCDOE. The leadership team also included Graduate NYC! staff, who could carry out decisions and complete the administrative tasks needed to move the project forward. Throughout the fall of 2011 and winter of 2012, the team met to discuss and make determinations about key features of the project model – now known as the Curriculum Alignment Project – including the nature of the curricular materials that participants would be asked to create, as well as the process they would go through to develop and test those materials. In addition, the leadership team decided on methods for recruitment and incentives for participation, as well as matters related to the timeline, budget, and process for documentation.

To make decisions about these crucial issues and create a model for collaboration that would be authentic and have the greatest chance of impacting both CUNY and the NYCDOE, the leadership team reached out to people across both institutions who had experience with partnership and curriculum development. Leaders from collaborative efforts and programs like Looking Both Ways (a former CUNY-DOE joint professional development initiative for teachers of writing\(^{12}\)), the CUNY School Support Organization (a CUNY-based structure that supports a network of NYCDOE schools), and CUNY Collaborative Programs (an umbrella for a set of programs, like College Now, that support college readiness for NYCDOE students) provided guidance regarding the features of the new teacher-faculty collaborative model that was emerging. Staff from the NYCDOE who were immersed in rolling out the CCSS in schools were also tapped to share what they were learning about the development of Common Core-aligned performance tasks, and to ensure that the new collaborative would be as connected as possible to the expectations of teachers in NYCDOE schools. In this planning phase, it seemed clear that facilitators would be needed to optimize the functioning of the faculty teams. Accordingly, by early spring 2012, the leadership team invited four curriculum development experts (two in math and two in reading & writing), with experience working across high schools and colleges, and expertise in curriculum and with the CCSS, to be facilitators of the new collaborative and to make the final decisions about the process for working with participating educators (See Appendix A for facilitator biographies).

The Curriculum Alignment Project: Objectives & Structure

The Curriculum Alignment Project would have the goal of bringing together faculty from CUNY and the NYCDOE to generate curricular units in literacy and math that would be aligned across high school, developmental, and introductory college level work. This curricular work would be aligned with the CCSS and the work of NYCDOE high schools implementing “Core-Aligned Tasks.” Participants would also be introduced to the learning outcomes associated with the CUNY Pathways initiative and other departmental academic standards at CUNY. To increase the potential of the project

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\(^{12}\) More information on Looking Both Ways can be found in the following volumes: *Looking Both Ways: High School and College Teachers Talk About Language and Learning* (Eds. George Otte & Carl Whithaus) and *Facilitating Collaboration: Issues in High School/College Professional Development* (Eds. Bonne August & Marcie Wolfe).
to have greater impact at CUNY and the NYCDOE, participants would also be connected throughout the project to systems-level administrators who could impact policy decisions at both institutions.

The project would be structured in the following way:

The leadership team planned to recruit Math and Reading & Writing team participants through CUNY campus administrations (for example, provosts and deans) and NYCDOE networks, with every effort made to bring on educators who had experience with curriculum development and working collaboratively across CUNY and the NYCDOE. Since the project would start at a small scale, and would be designed to build momentum, the leadership team would also aim to recruit participants who already had a strong interest in bridging the gap between high school and college curriculum. Additionally, at CUNY, faculty from neighboring community and senior colleges would be targeted where possible; and, at the NYCDOE, teachers more heavily engaged in Common Core alignment work as well as teachers from schools with existing relationships with CUNY would be actively recruited. All educators, including the facilitators, would be given a stipend for their participation.

As laid out in the original design, the Curriculum Alignment Project teamwork would begin in spring 2012 with two Orientation Sessions, and continue into the summer with curriculum development meetings wherein each team would produce a series of aligned curricular units (as indicated above). Starting small, developing units rather than whole courses, would allow teams to produce a meaningful, sharable product within the time allotted for collaboration. During the course of their work, teams would be led by the facilitators, who would be responsible for staying in communication with the leadership team, preparing for and facilitating team sessions, and fostering a collaborative relationship among participants that ensured all perspectives were valued. After the units were
developed, Curriculum Alignment Project team members would test the newly developed curricular materials in their classes in the fall of 2012, and then reconvene to discuss the results and revise their units accordingly.

Throughout the process, the project would be documented by Graduate NYC! staff for the purposes of sharing the results, including both the units created and the lessons learned from the partnership, with stakeholders in the NYCDOE and CUNY communities. One aim of the Curriculum Alignment Project was to develop units that could serve as “prototypes” and be shared, electronically and otherwise, at CUNY and the NYCDOE for use in classrooms. The leadership team anticipated, however, that the units would not be an end in themselves, but a means to spark further conversations about broader alignment work and the potential of faculty collaboration across high schools and colleges.

The Model in Practice

The design for collaboration laid out during the planning phase provided the critical foundation upon which to build during implementation. The following section will document the process of bringing participants together, from recruitment through unit piloting, and will describe the inevitable tweaks and changes made to the shape of the project as it was being carried out.

Recruitment proceeded as planned, with the leadership team reaching out to CUNY campus deans and provosts as well as NYCDOE networks. While the recruitment goal (16 members per disciplinary team) was nearly reached, getting commitments from participants proved more difficult than anticipated. The stipend provided some incentive, but ultimately participation in the project was voluntary, and educators had to balance the commitment required with the other demanding responsibilities of their jobs. Thus, the final list of participants, after some additional attrition following the Orientation Sessions, included 15 Math Team members and 10 Reading & Writing Team members (See Appendix B for a list of participants).

The Curriculum Alignment Project teamwork progressed in the following way:

<table>
<thead>
<tr>
<th>May – June, 2012</th>
<th>Orientation Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friday, May 4, 2012 (9:30am-2:30pm)</td>
</tr>
<tr>
<td></td>
<td>• The leadership team introduced participants to the goals of the Curriculum Alignment Project and touched on important contextual points, such as the plan for Common Core implementation at the NYCDOE and the CUNY Pathways initiative.</td>
</tr>
<tr>
<td></td>
<td>• All participants completed an activity designed to surface issues around student learning and high school to college alignment.</td>
</tr>
<tr>
<td></td>
<td>• Resource binders were distributed to all participants (See Appendix C for a list of resources shared).</td>
</tr>
<tr>
<td></td>
<td>• The Math and Reading &amp; Writing Teams met separately to grapple with discipline-specific questions around standards, assessments, and teaching practices in preparation for curriculum development.</td>
</tr>
<tr>
<td></td>
<td>o The Math Team facilitators provided an overview of the CCSS, including the Standards for Mathematical Practice, and discussed a sample word problem.</td>
</tr>
<tr>
<td></td>
<td>o The Reading &amp; Writing Team facilitators asked participants to bring in an assignment they have given to students, in order to discuss teaching strategies used and obstacles experienced. Small groups compared assignments and student expectations across levels (high school to college).</td>
</tr>
</tbody>
</table>
Wednesday, June 6, 2012 (2-6pm)

- All participants were introduced to the template they would use to create units. This template was chosen in order to standardize the materials created across the Curriculum Alignment Project; it also included additional descriptive text by section that would make it suitable for new users.  

- Participants spent the majority of the session divided by disciplinary teams.
  - The Math Team discussed the article, *Five “Key Strategies” for Effective Formative Assessment*, reviewed a sample unit plan, and formed three small unit-development groups.  
  - The Reading & Writing Team invited team members with expertise in the CCSS and the CUNY Assessment Test in Writing (the writing placement exam for entering college students) to give presentations. The team then reviewed the unit plan template and began the process of forming small unit-development groups.

*Note: In the case of both the Math and Reading & Writing Teams, small unit-development groups were formed according to participant interest, with efforts made to include members from all levels, where possible. It was decided that the units created by each disciplinary team (at least one each at the high school, developmental education, and introductory college levels) would not necessarily be aligned topically across levels, but would map onto standards within the CCSS that tracked most closely onto standards recognized by CUNY faculty.*

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Team Meetings: Monday, July 2, 2012

- Reading & Writing Team (10am-2pm)
  - Participants discussed several articles they had read in advance, including *Reading in the Disciplines: The Challenges of Adolescent Literacy*. Small unit-development groups also had time to work on their units before coming back together to discuss challenges with the team.

- Math Team (12:30-5pm)
  - Small unit-development groups shared their progress thus far with the team. The remaining time was spent in working sessions, with small groups receiving support and additional resources from facilitators.

Small Unit-Development Group Meetings

- Instead of scheduling a series of common curriculum development meetings, as originally planned, each small group scheduled its own meetings based on the availability of its members.

Final Team Meetings: Friday, August 31, 2012 (12-3pm)

- The leadership team offered an update on priorities and programs at the NYCDOE and CUNY, with a significant development involving funds secured by the office of CUNY’s University Dean for Education from the New York State Education Department (NYSED) for professional development of CUNY faculty related to education reform, including integration of the CCSS into teacher preparation programs. The collaborative curriculum re-design work of the CUNY-NYSED initiative, based on the NYS Regents Reform Agenda, would build on and extend the Curriculum Alignment Project by embedding it more systemically in the Schools of Education with the goal of preparing teachers able to

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13 The Unit Plan Template used was part of a resource developed by the Kentucky Department of Education called “How to Develop a Standards-Based Unit of Study.” It can be found at: [http://education.ky.gov/curriculum/docs/pages/how-to-develop-a-standards-based-unit-of-study.aspx](http://education.ky.gov/curriculum/docs/pages/how-to-develop-a-standards-based-unit-of-study.aspx)


instruct in the CCSS. In so doing, ties between teacher preparation in CUNY Schools of Education and teacher practice at NYCDOE schools, where approximately two thirds of CUNY-trained teachers secure jobs\(^\text{16}\), will be strengthened.

- The Math and Reading & Writing Teams divided up once more so that small groups could share their units, discuss challenges in development, and get constructive feedback (*See Appendix D for the Unit Sharing Protocol followed by the facilitators*). At the conclusion of this late August meeting, participants completed a Unit Pilot Plan Form to indicate which team members would be able to test the units in their classrooms in the fall.

### September – November, 2012

**Piloting & Revising Units**

- Where possible, units were piloted in the classroom (see below for an account of the Curriculum Alignment Project units developed and piloted\(^**\)). In several cases, facilitators and fellow team members were able to visit the classroom of a participant who was piloting a unit.
- By late November, small groups were asked to submit their revised unit materials, which included the unit plan, sample lesson plans, and annotated student work where possible. By the time of submission, the facilitators and leadership team had reviewed the unit materials multiple times and made suggestions for additional improvements.

### December, 2012

**Final Celebration**

- All participants were invited to a final celebratory dinner at which the leadership team and NYCDOE Chancellor Walcott thanked participants and emphasized the importance of NYCDOE-CUNY collaboration. Team members also had the opportunity to engage in a reflective discussion regarding alignment and the crucial next steps of sharing the Curriculum Alignment Project work at CUNY and the NYCDOE.

### Winter & Spring, 2013

**Share the Curriculum Alignment Project Work with the Community**

- Products to be shared with CUNY and NYCDOE stakeholders include:
  - Final Report, including lessons learned and recommendations
  - Units developed

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**Curriculum Alignment Project Units developed and piloted:**

<table>
<thead>
<tr>
<th>Team</th>
<th>Level of Unit</th>
<th>Unit Title</th>
<th>Piloting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading &amp; Writing</td>
<td>High School</td>
<td>Should the Bill of Rights apply to everyone, equally, in all situations?</td>
<td>This unit was piloted by one high school team member, in an 11th grade ELA class.</td>
</tr>
<tr>
<td></td>
<td>Developmental Education</td>
<td>Reading Mathematics</td>
<td>This unit was piloted by one college team member in a developmental reading course.</td>
</tr>
<tr>
<td></td>
<td>College</td>
<td>Comedic Theories</td>
<td><em>Due to an unforeseen shift in teaching responsibilities, this unit could not be piloted in Fall 2012.</em></td>
</tr>
<tr>
<td>Math</td>
<td>High School</td>
<td>Introduction to Functions (Developed in coordination with a college level unit. See below.)</td>
<td>This unit was piloted by two high school team members, in Algebra 1 and Algebra 2 classes.</td>
</tr>
<tr>
<td></td>
<td>High School</td>
<td>Funny Faces</td>
<td>This unit was piloted by two high school team members in Algebra 2 classes.</td>
</tr>
</tbody>
</table>

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\(^{16}\) Analysis by CUNY Office of Institutional Research and Assessment (OIRA).
Throughout the Curriculum Alignment Project process outlined above, team activities were documented by Graduate NYC! staff. In addition to keeping detailed records of meetings and team communications, during the fall of 2012 project staff also conducted individual interviews with all participants regarding the successes and challenges of the project. The following sections will detail the themes that emerged from these interviews, as well as from the reflections of the leadership team, and make concrete recommendations about the future direction of faculty collaborations.

**Successes & Challenges**

The successes and challenges of the Curriculum Alignment Project, described in more detail below, track the following themes:

**Successes:**
- Participants gained a broader perspective on student and teacher experiences at both the high school and college levels.
- Participants improved their teaching practices.
- Faculty collaboration was most successfully when it followed a clear, well-supported process, and focused on a specific, authentic task that could be connected easily to work with students in the classroom.
- Organizational support and coordination of the project facilitated its progression.

**Challenges:**
- Recruitment of committed participants with sufficient availability was difficult.
- The complexity of high school-to-college alignment—with respect to curriculum content, pedagogy, and the political context—made the process of creating aligned units seem vague and frustrating at points.
- There was not enough time to devote to each piece of the collaborative process, from joint professional development up front to piloting and revision in the final stages.
- Lack of clarity regarding the role each participant would play in collaboration led to some confusion, particularly at the start of the project.

**Major Successes**

Participants spoke most highly of the Curriculum Alignment Project when reflecting on its overarching mission to connect educators across the high school to college transition. Teachers on both sides saw the pressing need to resolve the disconnect that students experience between their high school and college careers; thus, the Curriculum Alignment Project filled a great need, and “broke necessary
Nearly all participants emphasized the value in becoming familiar with the standards, assessments, and teaching practices at each level. Many college faculty were exposed to the CCSS for the first time, and others supplemented their existing knowledge through discussions with high school teachers who had experience implementing the standards in their classrooms. Conversely, high school teachers had the opportunity to learn much more about the academic expectations of college. This included gaining greater knowledge of the college placement exams at CUNY, and being able to look closely at samples of student work judged proficient for entry into credit-bearing college courses.

Getting a broader view of the high school and college environments was eye-opening for participants, who gained a new appreciation for the strengths and complexities of each system and for the way in which student expectations differ across levels. This new appreciation is crucial to ensuring that high school teachers know what level of work will be expected of their students once they enroll in college, and that college faculty know how to connect students’ past learning experiences to their work with them at the university. As one participant put it, “The possibility for communication is very important. It’s key.”

The changes in personal perspective or practice that resulted from the high school-to-college, cross-level discussions central to the Curriculum Alignment Project were formative for participants, and created lasting positive impressions of their collaborative work. The majority of participating educators reported that this project allowed them to see both their colleagues and students from a new perspective. One high school participant gained a new sense of the importance of preparing students to operate independently in college. A community college faculty member said that cross-level discussions helped her get a picture of “the challenges that the educators in the high schools and the four-year colleges are facing, with me as the bridge,” and continued, “I do intend to think about that and use that.” A senior college faculty member gained new sympathy both for his students and for “the challenges…facing our dedicated high school teachers.” Indeed, the opportunities for teacher-faculty dialogue that this project afforded helped educators see themselves as allies and colleagues. The potential risk in projects of this kind, of a hierarchy emerging with senior colleges at the top and high schools at the bottom, was averted in this project through opportunities for all participants to share their challenges and best practices. Examples included opportunities for Reading & Writing Team participants from both the high school and college levels to present as experts on their standards. On the Math Team, each small unit-development group had members from both the high school and college levels, which offered members the chance to have candid discussions about teaching from different perspectives and in different contexts. One high school teacher recalled, “It came out that the high school teachers were bringing a lot to the table…I was able [to say that] we are colleagues; we’re equals. And that was beautiful!”

In addition to the new perspective that team members gained through their participation in the Curriculum Alignment Project, many also pointed to specific ways in which their teaching practices were improved. Those teaching at the college level in particular mentioned their increased attention to learning objectives, standards, and assessments, as well as their reinvigorated sense of what it means to plan a unit or course “backwards,” with these learning objectives in mind. In addition, several teachers brought new strategies and resources into their classrooms. For example, they tried an alternative, interactive teaching method, used a new technological tool, or exposed their high school students

17 All direct quotes and paraphrased reflections come from audio recordings of interviews conducted with the 4 facilitators and 23 participants in the Curriculum Alignment Project.
directly to CUNY placement assessments. The rich resources shared among participants during the Curriculum Alignment Project even inspired some participants to lead new (or improve existing) professional development opportunities within their own schools, thus multiplying the project’s impact.

**Major Challenges**

The complex and relatively rare nature of the work envisioned by the Curriculum Alignment Project meant that in addition to successes, there would also be many challenges and struggles as the collaborative process progressed. Recruitment was difficult from the beginning; potential participants had many demands on their schedules and relatively little incentive to join the project, apart from a limited stipend and their own personal interest. In the end, not everyone who joined was equally committed or available, evidenced by the attrition rate that the Reading & Writing team experienced. Furthermore, some participants, through no fault of their own, were not scheduled to teach the classes appropriate for piloting the lessons developed during the project. This meant that fewer participants than originally planned were able to try out the units in their classrooms (in one case, none of the teachers were able to pilot the unit developed in their group). Given the importance of testing curricular materials once they are developed, the difficulties encountered around piloting point to a critical area of opportunity in the future.

Another major challenge, experienced from early on in the implementation phase, involved the complexity of defining and demonstrating alignment. During the Orientation Sessions, the majority of participants were in some way confused about what exactly they would be accomplishing together and how. The process for achieving alignment was too vague and abstract. Since the project was situated at the intersection of standards and assessments between high schools and colleges—with the CCSS, CUNY Assessment Tests, CUNY Pathways learning outcomes, and CUNY departmental standards and exams all playing a role—it was unclear what exactly teams would be aligning to. One senior college faculty member expressed dismay that the project did not explicitly involve high school teachers aligning themselves with current practices and assessments at the introductory college level. It became difficult to imagine how the project would proceed as additional standards and teaching practices across all levels were considered and discussed.

Though educators were influenced deeply by their exchanges with other teachers, it was consistently difficult to reconcile the differing expectations for students and student learning across high school and college. Expectations at the college level are not explicitly aligned with the CCSS, even if implemented perfectly. Furthermore, differences across CUNY community and senior colleges mean that there is no single set of explicit first-year student expectations in each discipline. Because communication and clear alignment of standards within CUNY can be difficult, the challenge of creating alignment with standards outside of CUNY becomes more complicated. One educator expressed frustration “not to be working with an explicit set of aligned and anchored learning outcomes for first year courses, which would be the logical end-point of an alignment project.” Challenges like these are symptomatic of just how complex the larger political context for high school-to-college alignment is. Because CUNY and the NYCDOE are two large and diverse systems, at different points in implementing complicated internal alignment initiatives like the CCSS and CUNY Pathways, it is difficult for teachers to navigate a clear path between the two systems on the classroom level.

Differing standards around teaching practices across high school and college also complicate the notion of alignment. Substantial variation in typical lesson pacing and structure, as well as in
conventional teacher practice around lesson development, can make it difficult for high school teachers and college faculty to find common ground. The majority of participants certainly saw the need to discuss the interplay of curriculum and pedagogy; however, some saw the discussion of teaching practices emphasized by the facilitators – specifically in the case of the Standards for Mathematical Practice in the CCSS – as getting in the way of addressing the alignment of curriculum content.

Differences in expectations around student learning across high school and college highlighted the need to find, and more consistently use, a common vocabulary. For example, the template used to standardize the materials created by all unit development groups proved frustrating and difficult to use for some, particularly those teaching at the college level. Because the teams did not create the template together (rather, it was a prototype originally developed for high school curriculum), and thereby ensure that it met the needs of those teaching at both local high schools and colleges, there was a sense that it was not the ideal tool. Additionally, though many of the small unit-development groups had a chance to develop a common vocabulary over the course of their close work together, there were a few cases where these small groups did not include members from all levels. In these instances, there was not enough real collaboration, and thus less opportunity to engage in a productive struggle reconciling the differing expectations of high schools and colleges.

A final major area of difficulty during work on the Curriculum Alignment Project was lack of time. Many participants felt that there was too little time allotted to accomplish the project’s goals. Some expressed the need to start with more joint professional development sessions that would provide a common foundation for all participants and initiate the process of building the trusting relationships that are necessary for collaboration. Others felt that more working meetings were needed in order to account for the time-consuming process of unit development. There was insufficient time also to do justice to the unit piloting phase. When the inter-visitations did occur, they were highly instructive. However, there was not enough time or structure to ensure that frequent inter-visitations and debriefing sessions were possible.

Another challenge regarding the timeframe was scheduling. Though many educators appreciated the flexible scheduling that allowed small unit-development groups to set their own meetings based on member availability, many felt that summer schedules were just too difficult to manage. On that score, the majority thought that work for this kind of collaborative project should take place during the school year.

**Other Considerations**

A challenge difficult for some participants to navigate, particularly in the initial phase of work, was finding their role within the project. Specifically, college faculty from CUNY Schools of Education were unsure how to participate most effectively. This was because this project did not target college Education courses for unit development, but rather developmental and introductory courses in the Arts & Sciences. Though all team members acknowledged the unique value of their contributions, a distinct role within the teams had not been envisioned in advance of the project’s launch. As one participant put it, when a project is a “work in progress” it can be constructive to make certain decisions organically; however, “we also felt that there could have been more guidance up front.” This
additional guidance, and the effort to make the project’s process and the roles team members would play more explicit from the beginning, would have provided a crucial “scaffold” for participant learning.

A challenge in the final stages of the project was ensuring that the units developed were sharable. In order to post curricular materials publically, the leadership team and participants had to create final versions of the units that did not violate any copyright regulations, and that were usable by other faculty as stand-alone documents. This process necessitated additional time and expertise.

Conversely, other successful features of the Curriculum Alignment Project model involved the work process participants were asked to engage in as they developed curricular units. Generally speaking, the work of participants was most productive and fulfilling as it became less abstract and more focused. Once the project reached the unit development stage, when teams divided into small groups, people had a more meaningful sense of the project’s goals. For the most part, participants liked the small size of the unit development groups (the average was approximately four), and many appreciated starting modestly with developing curriculum at the level of a unit rather than a whole course. Furthermore, many remarked on the “authentic” quality of the work they were asked to produce; it tied in closely with expectations at their own schools, particularly as related to the implementation of Common Core-aligned tasks at the high school level. For many participants, the most successful meeting of the Curriculum Alignment Project teams was the late August gathering during which the small groups shared drafts of the units they had developed. This represented an opportunity for participants to see the culmination of their work, and both to offer and receive constructive feedback.

Many faculty also acknowledged the usefulness of specific resources that were brought to bear on the unit development process. For example, the facilitators were able to connect important research and best practices to the work of their teams, and introduced the use of protocols for discussion, where necessary.

Finally, it should be noted that the Graduate NYC! staff time dedicated to organizing the project, coordinating meetings, communicating with participants, and documenting the work of the teams was crucial to ensuring that the work of the Curriculum Alignment Project teams moved forward. This collaborative work requires a substantial support infrastructure to be done well.

**Recommendations for the Future**

1. **Create opportunities for dialogue across high schools and colleges.**

   One Curriculum Alignment Project participant noted that communication between high schools and colleges was essential in the local context, and continued, “Especially if we are to send students from NYC public high schools to the city university system, there has to be an expectation [of] ongoing communication and conversation.” This ongoing conversation must involve regular meetings between high school and college faculty, who both play a part in leading the collaboration. The dialogue should be opened up to include more teachers from across the city—teachers of math and English, but also teachers of other disciplines, faculty from Education Departments, and those who have been trained to address the needs of the diverse student population, including English Language Learners and students with disabilities. Higher participation rates will mean that cross-level dialogue will impact the practices of a greater number of teachers, and thus touch a broader range of students.
Crucial to ensuring active and wide participation in collaborative work across the K-16 continuum is the contribution of the administration at both the central and school levels. Not only do high-level administrative staff need to engage in dialogue across systems, but they also need to send a clear message in support of faculty collaboration across the systems. This message takes the form of publically embracing the importance of cross-institutional partnerships to improve college readiness and success, and determining the structures needed to achieve academic alignment. Furthermore, to as great an extent as possible, administrators can encourage a clear definition of standards within their own institutions; faculty across systems would benefit from a clear understanding of what success in an entry-level college course looks like. At the school level, administrators can allow time in teachers’ schedules for participation in collaborative projects, they can commit to the process of piloting new curricular materials, and they can listen to the recommendations of those who have been part of collaborative work.

2. **Build collaborative structures that lead to systemic change.**
   Locating cross-institutional dialogue in sites where it can impact important policies and practices at the high school and college levels will give weight to the collaborative dialogue. If opportunities for faculty collaboration are built into the departments and schools where faculty work, and connected also to the central administration, the best practices and challenges of participants can be more clearly communicated to policy makers. This kind of structural coherence is critical especially in New York City, which serves students at such a large scale. The NYSED partnership with CUNY Schools of Education (mentioned again below) aims to provide this kind of structure by locating course re-design teams within the Education Departments of each participating campus.

3. **Allow sufficient time for the collaborative process.**
   Nearly all Curriculum Alignment Project team members voiced the need for more time to accomplish the goals of this collaborative work. Additional joint professional development sessions at the beginning of collaboration would provide the opportunity to address both pedagogical practices and existing standards and assessments. More working meetings during the curriculum development stage, and time for follow-up sessions during piloting and revision, would do justice to the time necessary to produce substantive, sharable curricular materials.

4. **Examine student work with high school and college faculty.**
   Once curricular materials are produced, many participants emphasized the importance of a structured piloting process, one that involves multiple inter-visitations by participating faculty and follow-up sessions that use a set of agreed-upon guidelines. Perhaps most importantly, student work must be examined. A discussion of reasonable expectations for high school and college students would thus be grounded in authentic products that could be assessed by teachers at a range of levels.

**Other Considerations Regarding Faculty Collaboratives**

*Recruit committed faculty who are teaching targeted courses.*
Several Curriculum Alignment Project team members suggested that one way to ensure the participation of qualified and committed teachers in cross-institutional dialogue is to establish an application process. This process would clearly define the roles of each participant in the conversation, whether they come from high schools, community colleges, or four-year institutions. The application would also ensure that participating faculty would be scheduled to teach courses in which the units or tasks developed could be piloted.
Engage faculty participants in focused tasks.
Once the structure and support for teacher-faculty dialogue is established, Curriculum Alignment Project participants emphasized that it is most useful to engage in tasks that are delineated and focused. Discussing specific assignments, texts, teaching strategies, and assessments is a meaningful way to anchor conversations between high school teachers and college faculty. One participant reflected, “I think one of the ways to see an improved experience is starting small – see an improved unit; see an improved day. I think that sort of thing can motivate someone to try something different.”

Create curriculum development tools collaboratively.
With respect to unit development, several participants suggested that when charged with creating aligned curricular material, educators should develop their own templates. Instead of trying to force themselves into the high school or college model – of writing a syllabus or creating a lesson plan, for example – collaborators should come up with a third, aligned model. This model could then be used to develop a unit around a common text or topic that could subsequently be tailored for different levels.

Other Considerations Regarding Engaging Stakeholders

Enlist Schools of Education as major contributors in K-16 collaborative work.
As mentioned above, a grant from NYSED will link teacher preparation at CUNY more closely to the expectations of working teachers in the NYCDOE and the instructional expectations of the system as a whole. This collaboration will help ensure that teachers and students moving between both systems—from the NYCDOE to CUNY as students, and from CUNY to the NYCDOE as teachers—have a smoother transition. Furthermore, faculty in Education Departments at CUNY, who conduct research in the area of postsecondary transition can become partners in reflecting critically on collaborative initiatives, assessing their effectiveness, and highlighting areas of opportunity.

Include student voices.
Because the ultimate goal of reaching across the high school-to-college divide involves decreasing the distance that students must travel from high school graduation to college enrollment, several Curriculum Alignment Project participants suggested including students themselves more conspicuously in cross-level projects. Hearing directly from students about the differing expectations of high school and college-level work will highlight the urgent need for alignment, and will surface considerations that teachers themselves may have overlooked.

Ultimately, all stakeholders in college readiness and success can support opportunities for K-16 collaboration. Whether through funding, participation, or advocacy, members of the community can support strategies like faculty collaboration that will help students successfully transition to college.

Now that this phase of the Curriculum Alignment Project is at its conclusion, perhaps the most important recommendation for CUNY and the NYCDOE is to use the momentum and lessons learned from this work to create more meaningful opportunities for dialogue between teachers and administrators across the two systems. One such opportunity already seized is the continuation of this work in the CUNY-NYSED collaboration for faculty professional development. This joint effort will help create a structure for partnership that will strengthen the ties between CUNY and the NYCDOE.
Another important task moving forward will be to continue sharing the units developed and lessons learned during the Curriculum Alignment Project. This Final Report, and the curricular materials produced (also available on the Graduate NYC! website at www.gradnyc.com) can be shared widely, and used as a starting place for additional faculty to engage in the dialogue about student learning across high school and college. The recommendations listed above underscore the importance of this dialogue to bridging the gap between high schools and colleges, and giving students the tools they need to transition successfully into postsecondary education.
References


CUNY. Retrieved from [http://www.cuny.edu/about.html](http://www.cuny.edu/about.html)

CUNY Office of Institutional Research and Assessment (OIRA).


Rutschow, E. Z., & Schneider, E. (June 2011). *Unlocking the Gate: What We Know About Improving Developmental Education.* MDRC.
Facilitator Bios

Gayle Cooper-Shpirt: Director, CUNY College Transition Teaching Institute; Professional Development Coordinator, Adult Literacy/GED and CUNY Start, CUNY

Gayle Cooper-Shpirt is Director of the CUNY College Transition Teaching Institute and Professional Development Coordinator for CUNY’s Adult Literacy/GED and CUNY Start programs. She provides in-house and field-based training to college transition and GED instructors in the areas of reading, writing and curriculum development. Ms. Cooper-Shpirt has worked as reading consultant on numerous CUNY initiatives, including College Now, the CUNY Language Immersion Program, the New Community College and, most recently, the Graduate New York City College Focus Program.

Diane Giorgi: Teacher Consultant, NYC Writing Project, Lehman College

Diane Giorgi taught high social studies and writing in the New York City school system for 15 years before joining the New York City Writing Project at Lehman College as a full-time teacher consultant in 1999. Since then, she has worked with administrators, teachers, and students at small and large secondary schools in four of the five boroughs of NYC. In conjunction with her Writing Project work, Ms. Giorgi teaches in-service graduate courses and study groups, presents at local, regional, and national conferences on disciplinary literacy, supporting English Learners, and teaching writing, and participates in National Writing Project initiatives on essay scoring, content area literacy, and literacy in the Common Core. Ms. Giorgi is also an adjunct instructor in the graduate education department at Pace University.

Suzanne Libfeld: Director, NYC Mathematics Project, Lehman College

Suzanne Libfeld is the Director of the New York City Mathematics Project at Lehman College. She is the co-principal investigator on the NSF funded grant, Mathematics Teacher Transformation Institute. She has served as the Director of Mathematics, K-12, in Newburgh, New York; the Director of Mathematics in District 10 in NYC; program manager for the NSF funded New York City Urban Systemic Initiative; assistant principal; district mathematics staff developer; and classroom teacher. Ms. Libfeld is an adjunct instructor in mathematics education at Lehman College and Manhattan College. She is currently the President of the New York State Association of Mathematics Supervisors, a regional team leader for the National Council of Supervisors of Mathematics, an executive board member of the Ten county Mathematics Education Association, and a member of the Board of Directors of the Lehman College Alumni Association.

Arlene DeSimone Sciarretta: NYC Mathematics Project, Lehman College

Arlene DeSimone Sciarretta is a Consultant for the NYC Math Project, CEI-PEI and two NSF grants, The Science Partnership at Hunter College and The Teacher Transformation Institute at Lehman College. As part of her work with NYCMP, she is currently working in 2 CUNY SSO schools to create Common Core units. Ms. Sciarretta recently retired from Harry S Truman High School where she was the Assistant Principal of the Mathematics Department for 21 years and a mathematics teacher for 19 years. Ms. Sciarretta was also involved with implementation and supervision of The Interactive Mathematics Program, an NCTM standards-based program both through teaching it in the classroom and training teachers citywide.
# Appendix B

## Curriculum Alignment Project

### Reading & Writing Teams:

<table>
<thead>
<tr>
<th>Team</th>
<th>Name</th>
<th>School/Network/Org</th>
<th>Unit Developed: Level &amp; Course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facilitators</strong></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Gayle Cooper-Shpirt</td>
<td>CUNY (Professional Development Coordinator, Language and Literacy Programs)</td>
<td>NA</td>
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<tr>
<td></td>
<td>Diane Giorgi</td>
<td>NYC Writing Project, Lehman College (Teacher Consultant)</td>
<td>NA</td>
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<tr>
<td><strong>Team Members</strong></td>
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<td></td>
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<tr>
<td></td>
<td>Cynthia Jones</td>
<td>CUNY: Hostos Community College, English</td>
<td>Developmental Education; Developmental Reading</td>
</tr>
<tr>
<td></td>
<td>Andrea Fabrizio</td>
<td>CUNY: Hostos Community College, English</td>
<td>Developmental Education; Developmental Reading</td>
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<tr>
<td></td>
<td>Tyler Schmidt</td>
<td>CUNY: Lehman College, English</td>
<td>Provided feedback on all units</td>
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<tr>
<td></td>
<td>David Hyman</td>
<td>CUNY: Lehman College, Middle and High School Education</td>
<td>College: English 110: College Writing at Queens College</td>
</tr>
<tr>
<td></td>
<td>Elisabeth Johnson</td>
<td>CUNY: College of Staten Island, Education</td>
<td>High School: 11th Grade ELA course</td>
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<tr>
<td></td>
<td>Gay Brookes</td>
<td>CUNY: Borough of Manhattan Community College, Developmental Skills</td>
<td>Provided feedback on all units</td>
</tr>
<tr>
<td></td>
<td>Ferris Unni</td>
<td>DOE: CUNY School Support Organization</td>
<td>High School: 11th Grade ELA course</td>
</tr>
<tr>
<td></td>
<td>Erin Lee</td>
<td>DOE: Frederick Douglass Academy II</td>
<td>High School: 11th Grade ELA course</td>
</tr>
<tr>
<td></td>
<td>Stephanie Barnes</td>
<td>DOE: Queens School of Inquiry</td>
<td>College: English 110: College Writing at Queens College</td>
</tr>
<tr>
<td></td>
<td>Barry Frank</td>
<td>DOE: Queens School of Inquiry</td>
<td>College: English 110: College Writing at Queens College</td>
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## Curriculum Alignment Project

### MATH TEAMS:

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<thead>
<tr>
<th>Team</th>
<th>Name</th>
<th>School/Network/Org</th>
<th>Unit Developed: Level &amp; Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitators</td>
<td>Suzanne Libfeld</td>
<td>NYC Mathematics Project, Lehman College (Director)</td>
<td>NA</td>
</tr>
<tr>
<td>Facilitators</td>
<td>Arlene Desimone Sciarretta</td>
<td>NYC Mathematics Project, Lehman College (Teacher Consultant)</td>
<td>NA</td>
</tr>
<tr>
<td>Team Members</td>
<td>Frank Gardella</td>
<td>CUNY: Hunter College*, Education (Mathematics)</td>
<td>Developmental Education; Developmental Algebra</td>
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<tr>
<td>Team Members</td>
<td>Barry Cherkas</td>
<td>CUNY: Hunter College*, Mathematics</td>
<td>High School; Algebra 2</td>
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<td>Team Members</td>
<td>Beverly Smith</td>
<td>CUNY: City College**, Education</td>
<td>College &amp; High School: Precalculus</td>
</tr>
<tr>
<td>Team Members</td>
<td>Stanley Ocken</td>
<td>CUNY: City College**, Mathematics</td>
<td>College &amp; High School: Precalculus</td>
</tr>
<tr>
<td>Team Members</td>
<td>Margaret Dean</td>
<td>CUNY: Borough of Manhattan Community College, Mathematics</td>
<td>College &amp; High School: Precalculus</td>
</tr>
<tr>
<td>Team Members</td>
<td>Margaret Karrass</td>
<td>CUNY: Borough of Manhattan Community College, Mathematics</td>
<td>College &amp; High School: Precalculus</td>
</tr>
<tr>
<td>Team Members</td>
<td>Michael Guy</td>
<td>CUNY: Queensborough Community College, Mathematics</td>
<td>Developmental Education; Developmental Algebra</td>
</tr>
<tr>
<td>Team Members</td>
<td>Jonathan Cornick</td>
<td>CUNY: Queensborough Community College, Mathematics</td>
<td>Developmental Education; Developmental Algebra</td>
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<tr>
<td>Team Members</td>
<td>Aryeh Gershon</td>
<td>DOE: *Manhattan/Hunter Science High School</td>
<td>High School; Algebra 2</td>
</tr>
<tr>
<td>Team Members</td>
<td>Marc Drouin</td>
<td>DOE: *Manhattan/Hunter Science High School</td>
<td>High School; Algebra 2</td>
</tr>
<tr>
<td>Team Members</td>
<td>Nancy Bryne</td>
<td>DOE: **City College Academy of the Arts</td>
<td>High School; Algebra 2</td>
</tr>
<tr>
<td>Team Members</td>
<td>Marietta Geraldino</td>
<td>DOE: Fredrick Douglass Academy II</td>
<td>College &amp; High School: Precalculus</td>
</tr>
<tr>
<td>Team Members</td>
<td>Brooke Nixon-Freidheim</td>
<td>DOE: Long Island City High School</td>
<td>Developmental Education; Developmental Algebra</td>
</tr>
</tbody>
</table>

* Indicates partner high schools & colleges
Curriculum Alignment Project
Resources List

MATH TEAMS:

From Graduate NYC!
- Curriculum Alignment Project overview
- Curriculum Alignment Project participant list

From the New York State P-12 Common Core Learning Standards for Mathematics:
- Excerpt

From the NYC Department of Education:
- “Protocol for Math Performance Task Alignment to the Common Core Learning Standards”
- “Depth of Knowledge (DOK) Levels” chart & “Depth-of-Knowledge Levels for Four Content Areas” (Norman L. Webb)
- “Mathematics Instructional Materials Review Rubric”
- “Bundle Components Overview”

From the City University of New York:
- “Common Core Structure: Final Recommendation to the Chancellor, City University of New York Pathways Task Force” (December 1, 2011)
- “CUNY Math Panel Recommendations: Elementary Algebra Proficiency” (Fall 2011)

Other Resources:
- “Connecting the Dots: Postsecondary’s Role in Preparing K-12 Students” (Achieve)
- “The Common Core State Standards and Teacher Preparation: The Role of Higher Education” (Science and Mathematics Teacher Imperative (SMTI)/The Leadership Collaborative (TLC) Working Group on Common Core State Standards)
- “Five ‘Key Strategies’ for Effective Formative Assessment” (NCTM)
Curriculum Alignment Project
Resources List

READING & WRITING TEAMS:

From Graduate NYC:
• Curriculum Alignment Project overview
• Curriculum Alignment Project participant list

From the New York State P-12 Common Core Learning Standards for English Language Arts & Literacy:
• Excerpt

From the NYC Department of Education:
• “Common-Core Aligned Task with Instructional Supports - Grades 11-12 Literacy: On Behalf of Others”
• “Protocol for Literacy Performance Task Alignment to the Common Core Learning Standards”
• “A Beginner’s Guide to Text Complexity” (AUSSIE, NYCDOE Secondary Literacy Pilot)
• “Depth of Knowledge (DOK) Levels” chart & “Depth-of-Knowledge Levels for Four Content Areas” (Norman L. Webb)
• “Literacy Instructional Materials Review Rubric”
• “Bundle Components Overview”

From the City University of New York:
• “Common Core Structure: Final Recommendation to the Chancellor, City University of New York Pathways Task Force” (December 1, 2011)
• “CUNY Assessment Test in Writing: Student Handbook”

Other Resources:
• “Connecting the Dots: Postsecondary’s Role in Preparing K-12 Students” (Achieve)
• “The Common Core State Standards and Teacher Preparation: The Role of Higher Education” (Science and Mathematics Teacher Imperative (SMTI)/The Leadership Collaborative (TLC) Working Group on Common Core State Standards)
Additional Reading & Writing Resources

**English Language Learners**


**Learning and Cognition**


**Reading, Writing and Vocabulary Instruction**


Unit Sharing Protocol

Purpose: This protocol is intended to provide a supportive environment for teams to reflect on their units and receive useful feedback prior to implementation.

Steps:

1. The facilitator reviews the protocol. (3 min.)
2. The presenting team briefly reviews the unit’s goals, the context for the work (students, level, course, how the unit falls within a larger instructional plan, etc.), the standards addressed, and the process for assessing student work. The presenters share their focus question for the group to consider during their discussion. (5 min.)
3. The participants review the presenting team’s unit plan (and accompanying lesson plans if they are provided as stand-alones). (7 min.)
4. The participants ask clarifying questions. (5 min.)
5. The presenting team moves out of the group and takes notes on the discussion.
6. The group discusses the unit using the following guiding questions. (25 min.)
   a. What are the strengths of the unit?
   b. How does the unit respond to the range of learners and performances described? How might it be strengthened to respond to a range of learners and learner performances?
   c. What will students know and be able to do when they complete this unit?
   d. Reading & Writing Team: What evidence is there that reading and writing skills integral to the standards are being taught and reinforced?
      Math Team: What evidence is there that the Standards for Mathematical Practice are being taught and reinforced?
   e. Does the culminating assessment clearly measure the learning objective that the students need to achieve?
   f. How has the culminating assessment been communicated to students? Will students clearly comprehend what they must do to produce a high-quality response?
   g. What sort of useful feedback will students receive as they work on formative tasks in preparation for the culminating assessment? How might these tasks and feedback be strengthened to respond to a range of learners and learner performances?
7. The presenting team moves back into the group to respond. (7 min.)
8. The entire group discusses what was learned from the conversation. They explore how this conversation led them to insights about their own work. (7-10 min.)

Based on an assignment protocol and writing assignment framework developed by the National Writing Project, 2011