Quality Review Report

2016-2017

Archimedes Academy for Math, Science and Technology Applications

Secondary School 08X367

456 White Plains Rd.
Bronx
NY 10473

Principal: Miriam Lazar

Dates of Review:
February 16, 2017 - February 17, 2017

Lead Reviewer: Lenneen Gibson
The Quality Review Report

The Quality Review is a two-day school visit by an experienced educator. During the review, the reviewer visits classrooms, talks with parents, students, teachers, and school leaders and uses a rubric to evaluate how well the school is organized to support student achievement.

The Quality Review Report provides a rating for all ten indicators of the Quality Review Rubric in three categories: Instructional Core, School Culture, and Systems for Improvement. One indicator is identified as the **Area of Celebration** to highlight an area in which the school does well to support student learning and achievement. One indicator is identified as the **Area of Focus** to highlight an area the school should work on to support student learning and achievement. The remaining indicators are identified as **Additional Finding**. This report presents written findings, impact, and site-specific supporting evidence for six indicators.

Information about the School


School Quality Ratings

### Instructional Core

<table>
<thead>
<tr>
<th>To what extent does the school...</th>
<th>Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Ensure engaging, rigorous, and coherent curricula in all subjects, accessible for a variety of learners and aligned to Common Core Learning Standards and/or content standards</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>1.2 Develop teacher pedagogy from a coherent set of beliefs about how students learn best that is informed by the instructional shifts and Danielson Framework for Teaching, aligned to the curricula, engaging, and meets the needs of all learners so that all students produce meaningful work products</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>2.2 Align assessments to curricula, use on-going assessment and grading practices, and analyze information on student learning outcomes to adjust instructional decisions at the team and classroom levels</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
</tbody>
</table>
## School Quality Ratings continued

### School Culture

<table>
<thead>
<tr>
<th>To what extent does the school...</th>
<th>Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4 Maintain a culture of mutual trust and positive attitudes that supports the academic and personal growth of students and adults</td>
<td>Area of Celebration</td>
<td>Well Developed</td>
</tr>
<tr>
<td>3.4 Establish a culture for learning that communicates high expectations to staff, students and families, and provide supports to achieve those expectations</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
</tbody>
</table>

### Systems for Improvement

<table>
<thead>
<tr>
<th>To what extent does the school...</th>
<th>Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3 Make strategic organizational decisions to support the school’s instructional goals and meet student learning needs, as evidenced by meaningful student work products</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>3.1 Establish a coherent vision of school improvement that is reflected in a short list of focused, data-based goals that are tracked for progress and are understood and supported by the entire school community</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>4.1 Observe teachers using the Danielson Framework for Teaching along with the analysis of learning outcomes to elevate school-wide instructional practices and implement strategies that promote professional growth and reflection</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
<tr>
<td>4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning</td>
<td>Area of Focus</td>
<td>Developing</td>
</tr>
<tr>
<td>5.1 Evaluate the quality of school-level decisions, making adjustments as needed to increase the coherence of policies and practices across the school, with particular attention to the CCLS</td>
<td>Additional Finding</td>
<td>Proficient</td>
</tr>
</tbody>
</table>
Area of Celebration

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>1.4 Positive Learning Environment</th>
<th>Rating:</th>
<th>Well Developed</th>
</tr>
</thead>
</table>

Findings

The implementation of the living group program, asset building circles, and the National Honor Society and student celebrations foster the school’s approach to building a safe and inclusive culture. School based support teams meet regularly and allows the staff to get to know the student well.

Impact

A safe and inclusive school culture fosters and values student voice to support students’ learning needs. The school has structures in place to ensure that each student is known well by an adult.

Supporting Evidence

- The school has supports in place such as a gender based advisory (the Living Group), asset building circles, the National Honor Society (NHS), and celebratory events resulting in a safe and inclusive school culture where student voice is welcomed and valued. Advises meet once a week in their respective advisory with advisors and receive instruction centered on, but not limited to the pillars of team work, community building, leadership, problem solving, and healthy decision making. The advisory also has an asset building component whose foundation is built on forty developmental asset principles that are implemented as needed. Student ambassadors of the NHS provide support to incoming sixth grade students through tours of the school. In addition, the student ambassadors are the face of the school during school fairs. The NHS spearheaded a student survey to get the input of student voice on extra-curricular activities. Because of the survey, extra-curricular activities such as a knitting club, chess club, soccer, and a family fun night were proposed by the NHS and resulted in the establishment of these clubs. A mid-year retreat is also held for eighth grade students to voice their concerns and deal with the transition to high school. Celebratory events such honor roll luncheons and assemblies, food drives, and field week laud students for their academic accomplishments and supports community building among the students. Because of these practices, the number of principal and superintendent suspensions has reduced by twenty-four percent.

- The attendance committee meets weekly with the attendance teacher to review data on chronically absent students from the attendance office, as well as teacher provided data from guidance counselors. Parental outreach is conducted on the chronically absent students in concert with other agencies if needed. The school uses a computerized system to take attendance and parents are notified if students are late upon arrival. The clinical social worker and guidance counselors conduct mandated counseling, as well as crisis management as needed. For recalcitrant students, the dean conducts restorative circles and conflict resolution to outline behavioral expectations. Guidance counselors also provide support to the teachers of the advisory, to further help coordinate the social emotional learning. Because of these practices, the overall attendance for the middle school is ninety-two percent, with a goal of ninety-three percent. During the student meeting, students stated that advisors in their living group know them very well and helps them to self-regulate their behavior.

- In addition to the mandated Individualized Education Program (IEP) meetings, the book, *Goalbook* was implemented to support pedagogues in effective IEP goal writing. In the process, teachers are provided supports on implementing modifications and accommodations in the classroom to support the learning needs of diverse learners.
**Area of Focus**

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>4.2 Teacher Teams Support and Leadership Development</th>
<th>Rating:</th>
<th>Developing</th>
</tr>
</thead>
</table>

**Findings**

Teachers collaborate in groups and inquiry teams that are beginning to implement the school goals. Teachers inconsistently analyze assessment data and student work for students they share.

**Impact**

Teachers engage in professional collaborations that is loosely connected to school goals. Teacher teams analyze assessment data and student, but this work does not typically result in improved teacher practice and progress towards goals for groups of students.

**Supporting Evidence**

- An English Language Arts (ELA) team was observed conducting a teacher team meeting. The focus for the meeting was to determine the impact of the restate, answer, cite, and explain (RACE) strategy on students' answering of text-based questions. Students demonstrated difficulty in writing their controlling ideas and their evidence was not aligned to this controlling idea. Common assessment was analyzed with an overall pass rate of sixteen percent. Using the Atlas protocol to analyze student work, patterns and trends were observed in this work such as, students used sentence starters, explained the evidence and paraphrased quotes, and used transition words. Recommendations were made to support student performance and improve teacher practice that included, conducting intervisitations with their colleagues and providing opportunities for students to self-evaluate. A review of a math team meeting notes, showed that teachers identified strategies to use on topics that students did not yield positive results. Student work was analyzed, and teachers pinpointed the specific areas of the students demonstrated weaknesses. Lessons were adjusted based on the analysis of the student work. The impact of the teacher team work on the improvement of student learning outcomes for groups of students was not evident.

- Data teams utilize a six-step data analysis process to analyze assessment results. One of the steps requires the setting and revision of specific, measurable, agreed upon, realistic, and time-bound (SMART) goals. A review of a science team's minutes revealed that teachers analyzed the June 2016 Living Environment Regents data. Specific questions were analyzed and the teachers set a SMART goal of helping students improve test scores on the Living Environment Regents in June 2017. Although the teachers across the content areas are meeting and discussing assessment data, the impact of this practice on student learning outcomes and improving teacher practice was not evident.

- During the meeting with teachers, teachers stated that high school grade teams meet twice a month, and meet weekly on Fridays in department teams to look at Regents scores and teaching practices. During the leadership meeting, it was stated that the middle-school teams meet more as grade teams than department teams during their lunch time. A review of an ELA team's meeting notes showed that teachers were analyzing student work for the inclusion of the instructional shift of using text based evidence in student writing. Using an inquiry approach is developing across the teams.
Additional Finding

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>1.1 Curriculum</th>
<th>Rating:</th>
<th>Proficient</th>
</tr>
</thead>
</table>

Findings

Curricula are aligned to the Common Core Learning Standards, integrate the instructional shifts, and consistently emphasize higher-order thinking skills and rigor.

Impact

Content standards are aligned to the Common Core Learning Standards, integrate rigorous tasks for all learners, and builds coherence, thus promoting college and career readiness for all students.

Supporting Evidence

- Unit plans are aligned to the Common Core Learning Standards and integrate the instructional shifts. In an ELA lesson plan, students were required to read the text, *To Kill a Mockingbird* and conduct a jig-saw activity that pertains to a topic covered in the text such as the author, Harper Lee, the Scottsboro Boys trial, Jim Crow laws, and growing up in the south. In addition, students devised two higher-order thinking questions relevant to their jig-saw topics. The plan was differentiated specifically for the diverse learners such as, the use of graphic organizers for reading and writing, charts, hands on activities, and strategic pairing of students. In an ELA lesson plan, students were required to use Cornell notes to draw conclusions about the opening scene of *The Crucible*. The lesson plan was aligned to the Common Core Learning Standards and differentiated for the diverse learners through scaffolding, differentiated graphic organizers, and the use of visual aids.

- In a mathematics lesson plan, students were required to find the tip and tax from a restaurant meal. Given the challenge of only spending twenty-dollars, students determined menu items to order and were tasked with including a fifteen percent tip. Students had to justify their work. Modifications for English Language Learners (ELLs) and students with disabilities had guided practice availability before independent work, provision of extra time, and the use of a calculator. A social studies lesson plan investigated the benefits or drawbacks of a trench by analyzing evidence from primary and secondary sources. The lesson plan was individually differentiated for the diverse learners. Supports included scaffolding, small group instruction, visual aids, sentence starters, and extended time.

- Curricula are aligned to the Common Core Learning Standards to build coherence and to promote college and career readiness for all students. An ELA curriculum map required students to produce a character analysis writing piece. Students were required to analyze the text, and cite evidence to support their thesis. In a science unit plan, students are required to write an explanatory piece about how humans can decrease their carbon footprint. Students were required to support their claims using evidence.
### Additional Finding

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>1.2 Pedagogy</th>
<th>Rating:</th>
<th>Proficient</th>
</tr>
</thead>
</table>

#### Findings

Teaching strategies consistently offer multiple entry points into the curricula. Students engage in high levels of discussions across classrooms.

#### Impact

Instructional strategies enable diverse learners to have access to challenging and higher-order tasks. Student thinking is made visible through high levels of student participation.

#### Supporting Evidence

- Student work products and discussions reflect high levels of student thinking and participation. In an ELA class, the aim of the lesson stated, “How do I determine the author’s point of view or purpose and explain how it is conveyed in the text?” Students read a transcript of Steve Job’s 2005 commencement speech at Stanford University. Students in groups with assigned roles such as table leader, reader of the speech, utilizing an analyzing speech graphic organizer, and using an additional scaffold to capture unfamiliar vocabulary words and their meaning. Student groups in their discussion with one another mentioned that Steve Job’s speech was very powerful. Another student stated that Mr. Jobs took risks, but another student disagreed with this statement and proceeded to explain why. When queried, students could convey their expectations for the activity. Similarly, in a science class, students conducted investigations to answer the question, “How does heat transfer?” Using cups made of different materials, students measured the heat loss when the cups are changed. Group members had assigned roles and together, students were observed collecting data. When asked, students could explain which cup demonstrated the most heat loss and discussed their predictions in their groups. Students demonstrated high levels of student thinking, participation, and ownership, but this practice was not evident across most of the classrooms.

- In an ELA class with diverse learners, students were reading *A Street Car Named Desire* and had to cite textual evidence to support the mental deterioration of a character. In addition, students had to devise their own Depth of Knowledge (DOK) questions based on the day’s reading. Students had assigned roles such as, but not limited to, summarizer, questioner, and literary luminary. Group members had a different scaffold based on their role in the group. In addition, the groups were differentiated by ability (low, middle and high). In a social studies class, the aim of the lesson stated, “How have African American social justice activists spread their message of equality throughout the course of United Stated history?” Students worked on differentiated tasks that depicted the African American experience through art, music, speech, and photography. Students had differentiated scaffolds that posed questions on the artifacts students viewed. The teacher asked the students to make connections to the images. However, there were no extensions into the curricula for high achieving learners or early finishers.

- In a mathematics class, the aim of the lesson stated, “How do transformations change the parent graph?” Students were working on different sections of a worksheet and color-coded the different functions on their sheets. The teacher posed a problem and asked the student groups to make a prediction. In their groups, the students were making their predictions and justifying their predictions. Students who completed the task early had to devise their own functions. In a social studies class with diverse learners, the aim of the lesson was, “How do we determine the theme of a piece of literature?” Students’ utilized translated scaffolds in their small group and differentiated tasks. Students engaged in brief turn and talks to answer the teacher’s question.
### Additional Finding

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>2.2 Assessment</th>
<th>Rating:</th>
<th>Proficient</th>
</tr>
</thead>
</table>

**Findings**

Teachers' assessment practices are aligned with the school's curricula and consistently reflect the use of checks for understanding.

**Impact**

Teachers check for understanding to meet the needs of all learners. Feedback provided to students is actionable but does not yet offer a clear portrait of mastery.

**Supporting Evidence**

- Teacher use rubrics that are aligned to curricula such as the *Teachers College Reading and Writing Project* for ELA in middle school, and *Harcourt* for high school ELA to assess student writing. In the student group meeting, all students attested that teachers, use rubrics to assess their work and provide feedback with next steps. Students also noted that rubrics are used before and during the assignment. A sample of student work included feedback that commended the students for their strong introduction and making strong connections within the body of paragraphs. The feedback stated that the students need to break up their writing into smaller paragraphs for more clarity. Another sample of student work recommended that the students proofread their work before submitting their final draft. While feedback provided to students is actionable, it does not provide a clear portrait of mastery.

- Teachers checked for understanding by using strategies such as conferencing with students, and using colored cards. In a mathematics class, students used colored cards to symbolize if they needed help or not. Students were also using checklists, as well. As the teacher walked around and conferenced with students, the teacher noticed a few students needed extra help. The teacher then stated that students would be re-grouped and will utilize a different instructional strategy to teach the content. In an ELA class with diverse learners, the teacher had conferences with the student groups and was overheard giving a student specific feedback to use the sentence starter in their writing. In a science lab class, students had colored cups on their lab stations that symbolized if they needed additional support. Although teachers are checking for understanding, this practice does not always lead to on-the-spot adjustments to the lesson.

- In a science class as the teacher walked around and conferenced with students and looked at student work, the teacher noticed students were making errors in their calculations. The teacher adjusted the lesson to review how to calculate heat loss on the board.
Additional Finding

<table>
<thead>
<tr>
<th>Quality Indicator:</th>
<th>3.4 High Expectations</th>
<th>Rating:</th>
<th>Proficient</th>
</tr>
</thead>
</table>

Findings

School leaders and staff consistently communicate high expectations to the school community that conveys expectations for instruction, professionalism, and is connected to a path to college and career readiness.

Impact

School leadership consistently conveys expectations to the entire staff, provides training, and holds the staff accountable. The school community offers ongoing feedback to families and helps families understand student progress toward those expectations.

Supporting Evidence

- School leaders convey high expectations for instruction, professional development, and professionalism. The expectations for the classroom environment are delineated via a classroom learning environment checklist. The checklist notes what information should be prominently displayed in the classroom, such as the pacing calendar, current student work, and grading rubric/grading policy. Administrators and peer collaborative teachers facilitate professional development on topics such as engagement strategies, "Universal Design for Learning: Equal Access to Learning," “How to implement graphic organizers into our lessons to assist specific student needs,” and a multi-session workshop on differentiation strategies. Further, expectations for paraprofessionals were also communicated in writing and articulated that paraprofessionals are support agents to enhance instruction in the classrooms. Staff members are held accountable for the expectations through administrator classroom walk-throughs.

- School leaders communicate expectations to the families that are connected to college and career readiness through the Archimedes Academy app that sends out push notifications to families that is translatable into forty different languages. Grades are memorialized through an online grade book system that students and parents both have access. Mid-quarter progress reports, end of the quarter report cards, teacher blogs, text messages, meetings are all means of communicating with parents. During the parent meeting, parents stated that the school does keep them abreast of their child’s academic performance via text messages, emails, letters sent to the home, phone calls, and parent teacher conferences. Weekly parent engagement time is also another opportunity for parents to keep abreast of their child’s academic progress.

- Families of middle school parents are provided with informational workshops on myOn and iReady to support the learning process while at home. There are grade level specific informational sessions that are held for families. For example, the school hosts a summer session for eleventh and twelfth grade families to explain the eligibility for college credited courses through Syracuse University known as Syracuse University Project Advance (SUPA). In addition to these sessions, families of senior students are also informed if their child is on or off track for graduation and provided a checklist of graduation related dates.