

Quality Review Report

2014-2015

STEM Institute of Manhattan

Elementary M241

**240 West 113 Street
Manhattan
NY 10026**

Principal: Marcia Hendricks

**Dates of review: April 1, 2015
Lead Reviewer: Ilene Altschul**

The School Context

STEM Institute of Manhattan is an Elementary school with 100 students from K through grade 5. The school population comprises 48% Black, 46% Hispanic, 4% White, and 2% Asian students. The student body includes 15% English language learners and 34% special education students. Boys account for 50% of the students enrolled and girls account for 50%. The average attendance rate for the school year 2014-15 was 92.5%.

School Quality Criteria

Instructional Core

| <i>To what extent does the school regularly...</i> | Area of: | Rating: |
|--|----------------------------|-------------------|
| 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. | Celebration | Proficient |
| 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 | Additional Findings | Developing |
| 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. | Focus | Developing |

School Culture

| <i>To what extent does the school...</i> | Area of: | Rating: |
|---|----------------------------|-------------------|
| 3.4 Establish a culture for learning that communicates high expectations to staff, students and families, and provide supports to achieve those expectations. | Additional Findings | Developing |

Systems for Improvement

| <i>To what extent does the school...</i> | Area of: | Rating: |
|---|----------------------------|-------------------|
| 4.2 Engage in structured professional collaborations on teams using an inquiry approach that promotes shared leadership and focuses on improved student learning. | Additional Findings | Developing |

Area of Celebration

Quality Indicator:

1.1 Curriculum

Rating:

Proficient

Findings

School leaders and faculty ensure that the curricula are aligned to the Common Core Learning Standards (CCLS) and to the instructional shifts with emphasis on the integration of STEM (Science, Technology, Engineering and Mathematics). Curricula and tasks are designed to emphasize higher order thinking for all students.

Impact

Curricula and academic tasks are planned to challenge the students' thinking and promote college and career readiness for all students.

Supporting Evidence

- School is using Ready Gen for English language arts (ELA). As a result of gaps in the ELA curriculum, they added Writing Fundamentals program with units on opinion writing and informational explanatory writing across all grades. In addition, the teachers plan reading lessons to align with the Common Core Learning Standards (CCLS). Lesson plans and unit plans indicate the standard such as demonstrating understanding of key details in a text in grade two and compare and contrast two or more characters, setting or events in a story in grade five. Teachers place emphasis on close reading strategies using complex texts as well as appropriately selected texts on their reading level for independent reading.
- For mathematics instruction, teachers have modified the Go Math curriculum to incorporate more problem solving and discussion as well as increase the use of manipulatives to support all learners. Teachers explained that they supplemented the math curriculum with Engage NY as well as Everyday Math program to develop students' number sense.
- The school prepares the students with college and career readiness skills with emphasis on technology. Technology is integrated throughout all curricula areas. Additionally, students are learning coding and programming. In their engineering class, students are becoming problem solvers and developing ideas with real world application. For example, the fourth-fifth grade bridge class was developing a knee brace, the Kindergarten and first grade classes were building houses for the *Three Little Pigs* to see which material is stronger and the second and third graders are designing a machine for a factory.
- The school has developed STEM units for all grades. These units integrate science, technology, engineering and mathematics. Second grade students completed the "Discovery Unit" and the essential question is what makes up our world. For the culminating project students created a geologist field guide. Students researched, weighed, sorted and compared rocks found in the world. In grade three, students created a traveling scrapbook and researched a European country incorporating energy integration and efficiency in that country. All culminating projects are shared through the school's "STEMulating your mind" event.
- School-developed curricula include small group activities, hands-on learning, introduction to vocabulary, and technology to address the needs of the students with disabilities and English language learners. These supports within the curricula enhance student understanding and encourage all students to engage in high-level thinking. For example in grade 5 unit on transformations students created a Discovery Channel video that presents their own example of processes that transform the land and they created a modern landform with clay, sand, food die and water.

Area of Focus

Quality Indicator:

2.2 Assessment

Rating:

Developing

Findings

Teachers are beginning to use formative and summative assessment data and rubrics to provide feedback to the students. Teacher's use of checks for understanding to assess student learning varies across classrooms.

Impact

The inconsistent use of checks for understanding and actionable feedback to students is impeding teachers' ability to make effective adjustments and meet the needs of all students.

Supporting Evidence

- The school assesses reading through Fountas and Pinnell running records, student conferences, and writing tasks. Math assessments include math unit tests and open-ended math problems. Teachers track the reading levels to show growth and identify whether students are reading on grade level. Teachers utilize the data to create an intervention plan and assessment profile indicating a short term goal for English language arts and for mathematics. The interventions indicated are not specific to the individual student gaps limiting their progress.
- Majority of displayed student work is assessed using a rubric and provides students with feedback highlighting a strength as well as offering next steps and areas to improve. Students stated that the rubrics help them know what they need to do. However, work in students' notebooks provided little feedback or evidence that it has been checked for accuracy or to evaluate student understanding. In one class, the period ended and students were told to stop working and put away their work. The teacher indicated that she will review the student responses to know whether the objective was met. She further stated that she works with each group once a week addressing student difficulties. There was little evidence that this was a common practice and therefore impacting student progress.
- Principal states that checks for understanding are conducted through questioning, review of student work, conferences, tracking checklists and use of exit slips. One teacher worked with a group of students and was keeping a checklist and identifying whether the student mastered the objective, was beginning to have some understanding or no understanding. However, she was unable to assess the rest of the class that were working independently or in partnerships. In another class, the teacher was circulating and tracking to check students' understanding and identified that half of the class was struggling. She stated that she will provide two more problems with guided practice to meet their needs but during the class visit there was little adjustment made to ensure mastery by all students.
- Due to inconsistency in a grading policy and the expectations, teachers were limited in identifying next instructional steps and providing the student with actionable feedback. For example, during the teacher team, one teacher shared a student's writing about a character from the book *Mr. Clutz is Nuts* to determine implications for instruction and an instructional change or approach that the teacher will try. Teachers reviewed the work and the rubric and identified noticings. Teachers engaged in a discussion but they were not in agreement in the rating of the student work.

Additional Findings

Quality Indicator:

1.2 Pedagogy

Rating:

Developing

Findings

Across classrooms, teaching practices inconsistently provide scaffolds and supports to engage and challenge all students in appropriately complex tasks. Questioning and discussion techniques attempted to engage all students with limited success.

Impact

Due to inconsistent opportunities to provide multiple entry points and discussion, students' ability to demonstrate high-level thinking and participation were impeded and limited students from producing meaningful work products.

Supporting Evidence

- Principal states that to best meet the needs of the students teachers are expected to teach through the workshop model and then group their students. In the majority of classes, the teacher was working with a small group. In the integrated co-teaching class the teachers were instructing through the parallel teaching model however, both groups of students were receiving the same lesson with limited supports. In another class, the teacher was working with a small group on vocabulary development while the other students were working in leveled texts according to their Fountas and Pinnell reading level. In addition, the academic intervention teacher was pushing into the class but there was little evidence that students received strategic supports to meet their individual needs.
- Across classrooms, students were primarily engaged in one task. In a self-contained special education class all students were expected to complete the same mathematics page regardless of grade level and ability. In another class, students were working with a partner completing the same task. Students were reading a snippet from two books within a series and then were to identify the problem and solution using a graphic organizer. The tasks inconsistently provided all students with supports to engage in an appropriately challenging task. Teachers indicate that they need additional professional learning opportunities focused on scaffolding instruction and supporting the students with disabilities and English language learners to successfully engage in the rigorous tasks.
- Principal has been providing professional development on the use of questioning and discussion and incorporating high-level thinking into the lessons. Teachers concur that the professional development offered strategies to incorporate questioning as a means to provide multiple entry points for all students however, this was an inconsistent practice. In one class students were posed with the question, "Which simple machine do you predict will do the least amount of work and why?" Students turned to their partner to discuss. In another class the teacher asked the students the strategy they used to solve and if everyone agreed but only one student responded and there was uneven participation.
- Student work shows evidence of the culminating STEM units as well as opportunities for writing narrative and informational explanatory pieces. Student work reveals the use of research and technology. However the level of rigor and cognitive challenge in student work products varies across classes.

Findings

While school leaders establish a culture for learning that conveys high expectations through professional development and observational feedback, teachers are beginning to communicate their expectations to students and families through defined next learning steps.

Impact

As a result, teacher teams and school-wide systems are beginning to provide feedback to students and families to help prepare all students for the next grade level.

Supporting Evidence

- Principal communicates her clear expectations through the professional learning sessions on Monday afternoons, through the feedback sessions after classroom observations, and instructional updates for the staff every week. As a new principal, the focus of the work emphasized building school culture, providing support around managing student behavior and creating an environment around respect and rapport. In addition, teachers have individualized professional development opportunities. This is developed based upon the ratings the teacher receives through the Danielson Framework for Teaching. Teachers are recommended to view specific videos and provide a reflection. Teachers state that the administration provides model lessons and in-class support to improve their practice.
- Students state that the school prepares them for the next grade level. They also agreed that the teachers will help them if they are challenged. All students attended afterschool for additional preparation for the state tests. They also spoke of the behavioral expectations with being respectful, responsible and safe. Students receive feedback and a grade aligned with a rubric on most of their culminating projects, unit assessments and writing assignments. Feedback includes an area of strength and area to further work on however on homework and daily tasks teachers provided little feedback.
- The teachers stated that there has been an improvement in the culture as they feel respected and valued. They stated that the work of teacher teams has helped to develop collegial relationships, provide suggestions and support each other. Through their professional collaborations, the teachers are beginning to provide students with feedback to prepare them for the next level. Teachers are developing rubrics across grades for students to assess their work and identify a goal.
- Parents were in agreement that the principal has made a difference in the school community. Parents stated that the teachers are very accessible and will text, call or meet with the teacher. One parent stated, "I'm always welcome here. I love that. She wants us here like a big family." Parents receive newsletters as well as report cards and assessment profiles from the teacher. Parents also agreed that they like the work given at the school particularly with the emphasis on STEM, technology and engineering. Students are involved in research projects. Parents confirmed that the students are getting a good foundation. Although, some parents suggested that they would like more regular updates particularly for students who are struggling or have an individualized education plan (IEP). There was also a concern that some students need additional help to ensure that they are successfully completing all tasks.

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|---------------------------|---|----------------|-------------------|
| Quality Indicator: | 4.2 Teacher teams and leadership development | Rating: | Developing |
|---------------------------|---|----------------|-------------------|

Findings

The majority of teachers are engaged in collaborative practices including analyzing student work and assessment data that are beginning to connect to school goals of increasing student achievement.

Impact

Through the use of the inquiry approach teachers are beginning to identify implications for instruction but these practices have not yet yielded progress in student achievement.

Supporting Evidence

- Teachers meet weekly to look at student work. Due to the number of teachers on a grade teachers meet in grade bands of kindergarten and grade one, grades two and three, and grades four and five. The work of the teacher teams has been adjusted to focus on analyzing student work and implications for instruction. Teachers developed the protocol and each teacher will present and follow-up for two to four weeks.
- During the second and third grade team meeting, teachers were reviewing a student's writing task. Teachers discussed the task and assessed the student's work. They then suggested to the presenting teacher strategies such as using a graphic organizer and gradually providing more space as a way to increase their writing stamina. Other suggestions included having students use their five senses to add more details and to be sure that the question specifically indicates that students should show evidence from the text to support their answer. As a result, the teacher will provide a mini-lesson on citing evidence. Another teacher explained that when she presented a while ago, a student struggled with spacing and punctuation and addressed this gap through conferencing. Since these practices are being adjusted and refined, they are just beginning to impact student achievement.
- Teachers indicate that through the teacher teams, they receive feedback and suggestions from their colleagues and that this support has been the most advantageous to move their practice. During these meetings, teachers share ideas for planning. In the kindergarten and first grade team, they are working on developing word-work strategies to increase students' skills. One teacher recognized that she struggles with getting to guided reading groups and her colleagues gave her suggestions to improve. Teachers in grade four and five analyzed the state assessment data and the item analysis to target the instruction to meet the needs of the students. As a team, they looked at the math vocabulary needed to be explicitly taught. In addition, they identified possible misconceptions so that they can plan accordingly.