NC ACCESS BEST PRACTICES

COVID Pivots

Implementation Description

Queen City STEM School (QCSS), located in Charlotte NC, focuses on developing lifelong learners with big hearts by providing a robust STEM (science, technology, engineering, and math) academic program and high-quality character education. At the start of the 2020-21 school year, QCSS had many plans to expand their educational offerings, but quickly found that COVID-19 required them to pivot in order to meet the unexpected and urgent needs of students and their families to ensure success with virtual learning.

The first priority was to ensure that all students had access to a computer and could successfully attend live meets and complete their daily course work. Research has shown that providing access to technology, particularly for students from economically disadvantaged backgrounds, can narrow the achievement gap (National Education Association, 2008). The school utilized NC ACCESS funds to purchase 145 Chromebooks for students as well as new, fully online Math and ELA curricula. Once everyone had the necessary tools, school administrators trained staff, families, and students how to effectively use these virtual platforms.

One of the most significant obstacles to virtual instruction was ensuring students attended class regularly. The elementary and secondary schools created their own virtual attendance policies that required staff members to contact families directly when students did not attend class. Teachers called parents, scheduled Zoom conferences, and visited student's homes. Each contact was solution focused as staff members worked with families to identify barriers and brainstorm solutions unique to each student's situation. After Christmas, the secondary school decided to increase their family

About This School

Queen City STEM School

Queen City STEM School is a tuition-free public charter school focusing on Science, Technology, Engineering, and Math (STEM) in Charlotte, North Carolina. We are lifelong learners with big hearts. As our motto "Scientia - Sapientia - Pax" signifies in Latin, we seek knowledge, pursue wisdom, and foster peace in all we do. Our robust academic program and character education develop students' skills to live in harmony with themselves, with others, and with the natural environment. We are committed to providing an exceptional education in a safe, nurturing, and culturally-responsive learning environment supported by a strong parent, school and community partnership.

Year School Opened: 2015-16

Grant Awarded: 2020-21

**Initial Grade Levels Served**: K-10

2020-21 Student Demographics

- Other 7%
- White 3%
- Hispanic 7%
- Asian 37%
- Black 46%
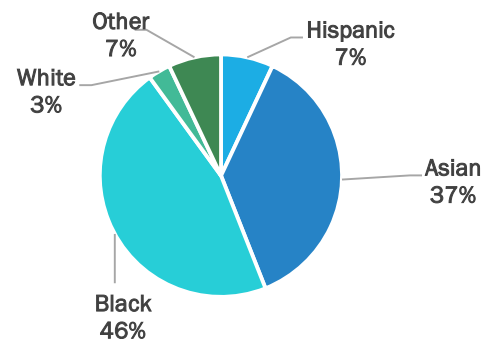
% ED Student Population: 45.6%

Urbanicity: Urban / Charlotte, NC

Persons in Poverty (Mecklenburg County)[6]: 10.3%

engagement efforts in order to improve student attendance. Studies have shown that family involvement is an important factor in student success (Van Voorhis, et al, 2013). They initiated 30-minute Parent Interaction Groups, which took place every Friday after 4:00 pm and provided a place for families and school administration to discuss the events of the week. The elementary school began offering monthly Dine with the Deans Zoom meetings in which school leadership shared tips and strategies focused on engaging families in their child(ren)'s education. These sessions addressed topics, such as locating information via the school website, taking a virtual tour of the new STEM lab, sharing testing tips and strategies, and discussing attendance concerns. Once families began to understand how they could support their child(ren)'s learning, student attendance improved.
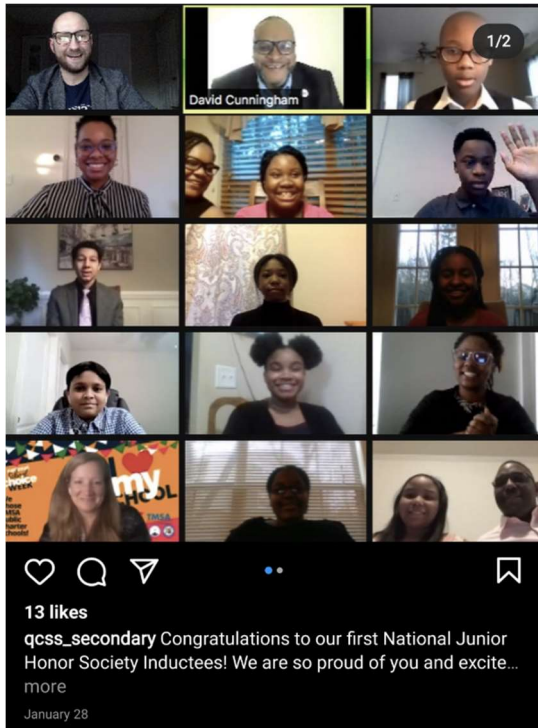
Finally, QCSS found it was necessary to modify their daily schedule to accommodate students in the virtual environment. At the elementary level, they offered 30 minutes blocks for core content throughout the morning and small group intervention sessions in the afternoons. The 4th and 5th grade teachers found that some students were neglecting to attend the afternoon sessions and requested that the morning blocks be expanded to an hour. During these longer blocks, teachers utilized some of the time as small group intervention/remediation and were able to work with students who had previously been missing the afternoon sessions. Once students were able to return to in-person learning, COVID-19 safety guidelines restricted students' movement throughout the building so as to limit the potential spread of the virus. As a result, students were required to stay in their own classrooms, rather than a carpool line, until their transportation arrived at school. This policy allowed for extended, small-group instruction, which is a proven way to maximize learning for all students (Miller, 2020). Teachers were able implement tutoring or remediation strategies with the small number of students who remained as they waited for their ride.

Results

Teacher and family perception data revealed that families felt valued by increased communication and support from school leadership during this challenging year. One example from a Parent/Community survey asked respondents to rate how well the "school reports to parents about student progress and how teachers, parents, and community members can work together to make improvements". The results showed a 44% increase for this item alone. Similar gains were seen for additional items contained within the survey, all aimed at learning how families perceived the school's ability to be inclusive and approachable. Family engagement efforts also resulted in improved student attendance.

Challenges

The primary obstacle QCSS faced was student attendance. School staff contacted families directly when students were not present for virtual instructional time and offered additional support to improve motivation, remove obstacles, and promote student success.

Future Modifications

The school plans to provide more online options for students and their families in the future including virtual family conferences and IEP meetings. They also plan to continue offering Dine with the Deans, but hope to transition this to an in-person event.

QCSS will likely continue the new dismissal procedure implemented in 2020-21 in which students were provided with additional small-group instructional time while they waited for their ride home.

Critical Components

Getting Started

School leadership found that providing every student with a device and access to online learning resources was an essential first step in their work. They also believe that providing training sessions for students, staff, and families were essential for the productive use of these resources.

Ongoing Supports

The school found that continuous and accessible communication with families created a school culture in which families felt supported and students were more likely to engage.

Equity Connections

Studies have shown that providing students with technology and offering technology training for staff and families addresses a common barrier to an equitable education (Anderson, 2019). QCSS provided Chromebooks to every student in need and trained staff, students, and teachers to use the provided technology effectively.

School leadership also increased their amount of communication with families by implementing Parent Interaction Groups and Dine with the Deans. Research has shown that family involvement in education improves student outcomes academically, which "*affects how they do later in life and...is one of the surest ways to move families out of poverty*" (Bogenschneider & Johnson, 2004).

Research

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