Dorothy Grant Elementary School
Model Programs and Practices

School Information

CDS (County District School) Code: 36677100102517

County: San Bernardino

District (Local Educational Agency): Fontana Unified

School: Dorothy Grant Elementary School

Demographics

Enrollment: 689 students

Location Description: Urban

Title I Funded: Yes

Type of Program: School-wide

School Calendar: Traditional

Charter: No

Overview

The Fontana Unified School District is located in Southern California in what is known as the Inland Empire, a fast-growing community 50 miles east of Los Angeles located in San Bernardino County. Our district is comprised of 45 schools, 30 elementary schools, 7 middle schools, 5 comprehensive high schools, and 2 continuation high schools which serve students from preschool through adult education in a diverse urban/suburban environment.

Dorothy Grant Elementary School opened its doors in August 2004 and is named after a prominent, nationally renowned civil rights leader who passed away in April 2013. It is a community school located in the middle of a residential neighborhood where most students can walk to school. Thirty-two percent of our school population currently attends under "School of Choice" or transfer status. Our school currently serves 689 students K–5th grade, including two Special Education mild/moderate classes. We have two Early Childhood Special Education mild/severe classes with a total enrollment of 26

students. A state preschool program is on campus and open to eligible 3–5 year olds with an enrollment of 50 students. Of our 689 students, 72% are Hispanic, 10% African American, 9% white, and 4% Asian. Seventy-one percent of our students are socio-economically disadvantaged and qualify for free and reduced lunch.

Dorothy Grant Elementary School proudly earned the California Department of Education's 2009, 2010, and 2013 Title I Academic Achievement Award and was named a California Distinguished School in 2010. Dorothy Grant Elementary School also received Honor Roll School recognition from the California Business for Education Excellence in 2012, 2013, 2014, 2015, and 2016. These prestigious honors were a reflection of the school's system of support for all students at all learning levels. Innovative intervention strategies and differentiated instruction have also greatly impacted school-wide student performance to meet state and federal standards of excellence.

Dorothy Grant Elementary utilizes the Response to Intervention Model to ensure that all students are learning and that differentiated instruction takes place within each student's grade level and learning level.

Our attendance rates have exceeded 96% for the past six years. We owe that, in part, to the engaging instruction and learning activities in place, such as our Science, Technology, Engineering, Art & Mathematics (STEAM) Academies implemented within the past two years.

Over the past five years our PTA has continued to grow and strengthen in support of our educational program. Thus, our parent participation at all events has increased with over 75% of families in attendance at Back to School night, Open House night and other school events.

Model Program and Practices

Name of Model Program/Practice: STEAM Academies

Length of Model Program/Practice: 2–4 years

Target Area(s): Career Technical Education, Closing the Achievement Gap, Parent, Family, and Community Involvement, Professional Development, Science, Technology, Engineering, and Mathematics, Use of Technology, Visual and Performing Arts

Target Population(s): American Indian, Asian, Black or African American, Filipino, Hispanic, Pacific Islander, White, Two or More Races, Socioeconomically Disadvantaged, English Learners, Students with Disabilities

Strategies Used: Small Learning Communities, Parent Engagement, Data-Driven Decision Making, Social/Emotional/Behavioral Support, Professional

Development, Implementation of Academic Standards Basics
(Teachers, Instructional Materials, Facilities)

Description

Dorothy Grant Elementary STEAM Academies began to take shape in May, 2016. After analyzing our end of the year Measure of Academic Progress (MAP) assessment results, data showed that our higher achieving students were not meeting growth targets. We pinpointed the need to provide students with more challenging opportunities to engage and inspire them. For the past ten years, millions of jobs in the U.S. have gone unfilled by our own citizens due to lack of experience in the areas of Science, Technology, Engineering, Art & Math. Our STEAM program is all inclusive, providing choice to all students including special education, foster youth, and all subgroups. We want all students,especially girls who tend to be under-represented, to have the opportunity to engage in experiences with content that will encourage them to explore careers in these areas, while also allowing them to engage in higher order thinking skills and problem-solving.

During our first year, STEAM Academies were held concurrently on Wednesday mornings, according to a schedule provided at the beginning of the school year. All teachers, grades 2–5, held six-week sessions for students, three times a year. Students were provided with a brochure of sessions to choose from. Session rosters were then compiled and students received one of their top three choices. Examples of sessions offered included: Mystery Bag (Engineering Challenges using specified materials), Rocket Construction and Launching, Mini-Makerspace, Computer Coding using Scratch, Paper Inventions, Morse Code, Goldiblocks (Engineering for Girls), Snap Circuits, Lego Robotics, Build and Bust a Bridge, Paint Like Picasso, Computer Breakdown (Learning to take apart and rebuild a computer), and Ozobots (Coding Miniature Robots). All kindergarten and 1st grade teachers held four-week sessions and students followed a different format; kindergarten students rotated as a class between the four kindergarten teachers. First grade students did the same. Some of the courses offered included: Legos, Wonder Gears, Making Ice Cream (Changes in Matter), Boat Challenge, Ozobots, Computer Coding using Code.org curriculum, Three Little Pigs Engineering Challenge, Binary Code Bracelets, Art Appreciation and creating 3-D Shapes. Resources such as Lego Robotics, Ozobots and Snap Circuits were borrowed from our district's Computer Technology Education (CTE) department and our school Parent Teacher Association (PTA) provided each teacher $200 to purchase supplies needed for their session.

Attendance rates have increased, suspension rates have decreased, and teacher morale is up. We attribute these changes predominately to our program. Students want to come to school and do not want to miss STEAM sessions.

Implementation and Monitoring

In May, 2016, to initiate the idea of Science, Technology, Engineering, Art & Mathematics (STEAM) Academies with the staff, teachers participated in their own

STEAM challenge. Teams worked together in "The Egg Drop Challenge" and were provided with materials and instructions to create a vehicle to safely convey an egg down an eight foot tall ramp at a sixty degree angle. Teams completed research related to the challenge and were excited and engaged.Teams were formed by grade levels and teachers had the summer break to research their topics for instruction. In the Fall, teams met together to discuss their ideas for sessions. Information regarding STEAM was shared at Back to School Night, PTA meetings, and Coffee with the Principal. Once sessions began, School Site Council (SSC) and English Learner Advisory Council (ELAC) members were invited to tour the school during a STEAM session.

At the end of our first round of STEAM sessions, a survey was provided online to all 2nd–5th grade students and all teachers to gather feedback regarding implementation, time allotted and choices provided. During our second year of offering STEAM sessions, teachers moved out of their comfort zones and created more challenging and rigorous sessions. Teachers, at this time, began to incorporate an essential question for each session, to guide student inquiry throughout the process. Students were then provided with reflection time and the opportunity to journal their new learning.

Our school Tech Team visited Summit High School where the team was able to visit computer science and engineering classrooms. As a result, the teachers from our school and Summit formed a relationship and subsequent partnership. The teachers at Summit have shared resources with our school, and we are currently working on a plan to share expertise via WebEx, an online face-to-face application similar to Skype. Students from the high school, along with their teacher, came to visit our STEAM Academies and help with instruction. The younger students loved working with high school mentors.

All teachers are involved in teaching sessions for our STEAM Academies, but we have also been able to utilize other members of our staff. Our Instructional Support Teacher (IST), has taught courses as part of our STEAM Academies, and our bilingual aide and librarian have assisted teachers during STEAM sessions. To showcase our students' successes, our school hosted a STEAM Night for families and our local community. Visitors were invited to tour classrooms, see examples of student projects and listen to student presentations of their learning. Many of these sessions included interactive, hands-on learning activities. A parent survey was provided as a culmination to the evening and some of the responses gathered included, "So glad to see my child gets to experience this!" and "I am impressed with the variety of technical skills being provided to my children." Feedback from the surveys was 100% positive.

Results and Outcomes

Dorothy Grant Elementary has seen an increase in proficiency levels in all grades in both Reading and Math, compared to the National Norm on Measures of Academic Progress (MAP) assessments. In Spring 2017, 53.37% of our students tested on CAASPP, scored Standard Met/Exceeded in English Language Arts. For Math, 44.38% Met/Exceeded the Standard. Of the thirty elementary schools in our district, we continue to be the highest performing elementary school. We are a "School of Choice", and 32%

of our students are enrolled through district transfers. Historically, transfer students enter our school lacking foundational skills. By the end of 5th grade, we strive to ensure we are successful in closing the gaps for transfer students, as well as reclassifying our English Language Learners prior to them leaving Dorothy Grant Elementary.

Teachers enthusiastically take on challenges in order to meet the needs of our students. Student responses to STEAM Academies has been overwhelmingly positive. According to survey results, students enjoy the fact they are able to make choices regarding their learning. Ninety-two percent of students responded "I loved it!" when rating their session on the survey provided. They are excited to attend and look forward to Wednesday's "STEAM Days" as evidenced in our highest attendance rates occurring on these days. Our bilingual aide commented that she wished that opportunities such as these had been offered when she was in school. She said that she knew these types of opportunities would have kept her friends interested in school, and prevented some of them from dropping out. All of our Summit High School mentors expressed similar comments such as, "Why couldn't my elementary school have offered this for me" and "I can only imagine what I would be capable of now if I had these opportunities".

This year students in grades K–5 participated in our annual Science & Engineering Fair. Prior to this year, only 4th & 5th grade students chose to participate. Seventeen students moved forward to the district's fair. Thirteen students received gold, silver and bronze honors and two students were chosen to move on and compete at the county level.

In October 2017, we submitted a proposal to the district office to build upon our STEAM Academy program, in anticipation of the new Computer Science Standards set for adoption in July 2019. Our proposal was accepted and, beginning Fall 2018, we will become a Computer Science Immersion School. We will have a five year partnership with Code to the Future which provides curriculum, using Scratch, Minecraft, Lego Robotics and Java Script. Lessons will be taught weekly to all K–5 students. All teachers will receive in-depth professional development, on-site weekly coaching, and time for collaboration. In addition, our school will develop an Innovation Lab, which will be used by all grade levels to support Makerspace activities.