

## **Don Juan Avila Elementary School Model Programs and Practices**

### **School Information**

CDS (County District School) Code: 30664646117634

County: Orange

District (Local Educational Agency): Capistrano Unified

School: Don Juan Avila Elementary School

### **Demographics**

Enrollment: 771 students

Location Description: Suburban

Title I Funded: No

School Calendar: Traditional

Charter: No

### **Overview**

Our mission is clear and vital: to motivate all children to learn more everyday. The staff at Don Juan Avila Elementary School (DJAES), partners with parents to empower all students with the skills and knowledge necessary for success in an ever changing world. Teachers emphasize reading, writing, mathematics, critical-thinking, technology, and problem solving to prepare all students to excel as 21st Century learners. High academic and behavioral standards are expected. Instilling the enjoyment of lifelong learning in a safe nurturing environment where everyone is valued, is the foundation for helping students become contributing members in society. There are 28 different languages spoken by students at DJAES, as well as English Learners, Special Needs, and GATE students included into all classroom environments.

DJAES's Parent Teacher Association is an integral part of our school community. They raise over \$100,000 annually and volunteer countless hours of time to support students and staff excellence. They provide field trips, academic assemblies, science lab, Art Masters program, PE equipment, garden experiences, math materials, and technology

programs. The annual Talent Show, Jog-A-Thon, Boo Bash, and Veterans Day Assembly are some of the ways they help foster community to school relations.

The Student Council and PTA collaborate to provide opportunities for our DJAES families to give back to the community through activities like collecting food for Saddleback Outreach, donating books and pajamas to needy children, and making cards for military members.

Partnerships with SOKA University and Peer Assisted Leadership with the adjoining middle school allows student volunteers to assist in and enhance student learning.

Parent volunteers in all classrooms create a culture of cooperation and learning by bringing in real world experiences. This allows them to show students that learning extends beyond the classroom.

Communication to the parents, community, and business is promoted through social media, weekly emails, automated voicemails, and a digital marquee in addition to traditional personal and written interaction.

The DJAES staff is dedicated to creating a nurturing environment that ensures all students receive a concrete educational foundation of basic skills in all subject areas. This allows our students to confidently apply these skills in academic and non-academic situations in a 21st century world.

## **Model Program and Practices**

Name of Model Program/Practice: Cognitively Guided Instruction (CGI)

Length of Model Program/Practice: 2–4 years

Target Area(s): Closing the Achievement Gap, Education Supports, Parent, Family, and Community Involvement, Science, Technology, Engineering, and Mathematics

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: School Climate, Small Learning Communities, Parent Engagement, Data-Driven Decision Making, Professional Development

## **Description**

At Don Juan Avila Elementary School (DJAES), Cognitively Guided Instruction (CGI) is an approach to teaching mathematics that builds on children's natural problem-solving strategies. CGI identifies specific strategies students use to help teachers understand

how students think so that they can guide them toward mathematical understanding to thrive in the 21st century.

With the newly adopted common core standards, it was apparent that students were struggling in the areas of mathematical reasoning and problem solving abilities so, as a staff, we decided that a new approach was essential to improving students success and depth of knowledge. In order to use CGI to fidelity, CUSD provided teachers with 2 full days of CGI training, as well as assigning an instructional coach to our school site. For best instructional practice, DJAES staff decided to meet monthly for more in depth training and to build understanding of the research-validated CGI program. Teachers also meet weekly as a grade level to share successes with CGI and collaborate on how to improve implementation as a grade level in order to meet the needs of all learners. Benefits of teacher collaboration include increasing shared knowledge, reducing teacher isolation, changing school culture to encourage working together, team building, and fostering a shared responsibility for the success of teachers and students across our school.

DJAES continues to nurture family and community partnerships by hosting an annual Curriculum Night where students become the teacher and solve problems with their families and community using CGI strategies. Weekly homework also includes problems that require students to use their CGI strategies to solve. This home-school partnership supports the social and emotional growth of children and creates a positive learning environment.

Through CGI, students' thinking is validated and they are able to see themselves as successful problem solvers. It also increases their confidence in mathematics and allows them to solve real world problems to guide them as future thinkers. CGI is beneficial to all learners including EL and Special Ed through the modeling of peers, collaborative work, and learning from each other. Often times students are exposed to new ways of thinking that they may not be familiar with but that makes sense to them and creates a new perspective for them for future problem solving. The CGI program benefits all learners by teaching them how to communicate more precisely with others, and that it's okay to make mistakes and learn from them; thus increasing their self esteem.

"There is a growing recognition that expert teachers and school leaders are perhaps the most important resource for improving student learning, and the highest achieving nations make substantial investments in them", as stated in, "A Blueprint for Great Schools", Educator Quality.

### **Implementation and Monitoring**

The approach used in CGI has shifted all stakeholders into "how we teach" while the CCSS are "what we teach". As a staff, we created a school-wide goal for mathematics: "When given a CGI story problem, Don Juan Avila Elementary students use strategies such as representing the problem with drawings or manipulatives, and reaching a solution as measured by teacher observation and/or work samples."

All stakeholders help create a safe, caring, and nurturing environment to successfully implement a collaborative classroom which is foundational to CGI. DJAES establishes this safe thinking environment from grades K–5 to inspire students to take risks in their thinking. Following a growth mindset rather than a fixed mindset, our classrooms welcome mistakes as these are our opportunities to allow students to reformulate their theory and create new action plans. There are established times built in teacher's lesson plans for collaborative share outs, flexible grouping, and small group instruction. This model ensures all voices are heard.

Math learning journals and whiteboards are a few ways teachers provide opportunities for students to reflect on their thinking and make meaning of the concepts. This year, teachers created a school wide math problem for students to solve and discuss. Problems are well crafted and rigorous enough to promote higher level of thinking and multiple use of problem solving strategies. Students are placed into carefully, selected flexible groups based on conceptual understandings.

Monitoring and assessing continually occurs as students are solving problems. Ensuring all voices are heard, students are asked to unpack the problem and create an action plan. Next, they carefully examine the problem at hand before solving. Once a plan is in place, students select a strategy to solve the problem. Teachers assist using well crafted and strategic questioning. This plan may be revised many times. Teachers recognize some students may solve quicker and need a more rigorous set of numbers while other students may need to explore a variety of strategies. These may include acting out, creating charts, the use of manipulatives, or any other tools needed.

In order to further monitor progress, students are given the opportunity to share their mathematical thinking. They are encouraged to use precise academic language while they share their chosen strategies.

Google classroom is used frequently to communicate with parents how our students are solving CGI problems. Teachers post student created work, anchor charts, and images of collaborative groups "in action". Weekly homework includes problems that require students to use their CGI strategies to solve. Parents are encouraged to participate in the problem solving process. DJAES implements family and community partnerships by hosting an annual Curriculum Night where students become the teacher and solve problems with their families and community using CGI strategies.

## **Results and Outcomes**

Our goal in our initial CGI work was to share our results on the developments of students' mathematical thinking and what it might mean in our practice by using anecdotal records, teachers adjust instruction and assess concept understanding. We also collaborate across grade levels and among teams to develop common assessments. This allows teachers to exercise initiative in making changes that will improve their personal performance and contribute to student learning. In addition to that, reflective learning walks allow teachers to observe student learning and find evidence of student success. By sharing transparent feedback, teachers are able to

modify their teaching according to the needs of the class. Teachers continuously monitor and assess student work. When looking at our data, overall performance measures from the California School Dashboard show remarkable achievement and growth across nearly all measures. All of our student scores on the CAASPP increased in Mathematics. The student groups that increased significantly were our English Learners, Socioeconomically Disadvantaged, and Hispanic students. All other student groups continued to increase scoring in the “highest performance” category.

Based on our findings, teachers’ expectations of their students’ mathematical understanding changed dramatically. Teachers were redefining how they interacted with their students. We could detail students’ mathematical thinking, organize those details, and highlight the principles underlying their thinking.

We recognized that by engaging in conversation with all stakeholders, teachers were able to talk about the relationship between strategy used in various domains across the grade level.

Students benefited from a variety of interactive groupings.

Through the use of CGI strategies, teachers have noticed that students are applying these same cognitive skills in reading, writing, science, and social studies. Students have discovered that connections can be made across the curriculum and applied to many situations. Using these cognitive strategies, students from DJAES will be highlighted in the book *Thinking Tools for Young Readers and Writers* by Carol Booth Olson to be released in April 2018.