

Chandler Learning Academy Model Programs and Practices

School Information

CDS (County District School) Code: 19647336016422

County: Los Angeles

District (Local Educational Agency): Los Angeles Unified

School: Chandler Learning Academy

Demographics

Enrollment: 511 students

Location Description: Suburban

Title I Funded: Yes

Type of Program: School-wide

School Calendar: Traditional

Charter: No

Overview

Chandler Learning Academy is located in Sherman Oaks, California, which is within Los Angeles County. It is a traditional school, with diverse student population serving 511 students. The school receives Title One funding because 52 percent of the student population is eligible for free or reduced lunch. The English Learner (EL) data indicates that 58 students are enrolled in the English Language Development (ELD) program. The historical data for the ELD program identifies a diverse ELL population being served by the program, with a reclassification rate of 22 percent, for students who are determined to reach English Proficiency.

The 511 TK–5th grade students who attend Chandler Learning Academy reflect the rich ethnic diversity of the San Fernando Valley. Of the 11 percent of students who are identified as English Learners, 59 percent are Spanish speaking, while the remaining 41 percent represent a variety of other languages, including: Arabic, Russian, French, Hebrew, Tagalog, Portuguese, and Armenian.

Chandler Learning Academy's SBAC trends demonstrate steady academic growth over the last few years. Our 2017 data indicated that 62 percent of third, fourth and fifth grade students scored met or exceed in English Language Arts and 61 percent of third, fourth and fifth grade students scored met or exceed in Math. We are settled in an economically advantaged area, but serve an economically and culturally diverse population. This diversity is what makes us so unique.

Chandler Learning Academy strives to be a welcoming learning environment for all students, regardless of social, economic, or cultural differences. Our goal is to serve our student body with respect and provide the best educational experience for all students in order to meet their individual needs and attain proficiency for all.

Model Program and Practices

Name of Model Program/Practice: Concept Driven Math Program

Length of Model Program/Practice: 2–4 years

Target Area(s): Closing the Achievement Gap, Parent, Family, and Community Involvement, Professional Development

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: Parent Engagement, Data-Driven Decision Making, Implementation of Academic Standards Basics (Teachers, Instructional Materials, Facilities)

Description

Chandler's Concept Driven Math Program includes lessons that have three phases: before, during, and after. In the "before" phase, students are presented with a real-life task problem. Students use strategies to identify what information they have and what the question is asking them to solve. The students also identify important information relative to the problem and any key words that would determine the operations used to solve the problem.

In the "during" phase, students use think-time/productive struggle time to independently create multiple solutions to the problem. After this time is over, students work in small groups to have constructive conversations and fortify their mathematical arguments. During this time, teachers address student misconceptions through questioning and scaffolding strategies.

Finally, students take part in the "after" phase. During this phase, the teacher facilitates the sharing of strategically chosen solution paths. Teachers ask questions to lead a

student-centered discussion to identify patterns and make generalizations. During this time students make claims, critique the work of others and defend their thinking. They also analyze the effectiveness of the strategies presented and negotiate the most effective and efficient of the strategies shared. As an extension, students create additional problems for their peers to solve.

Chandler's Concept Driven Math Program also emphasizes the use of drawing models to demonstrate conceptual understanding. Teachers explicitly teach students in grades TK–5 step-by-step procedures such as boomerang statements (where students restate the question), drawing pictures (models), writing equations, and how to check the validity of their response. These model-drawing strategies assist with bridging concepts from concrete to abstract. Some of these models include tape diagrams, area models, number bonds, number lines, ten frames, place value charts, and Thinking Maps. These models are universally used at Chandler.

As a school, we looked for a standards-based program that would support these practices and meet our students' needs. We discovered and embraced the Eureka Math curriculum, which aligned to our teaching practices. This program requires students to have conceptual understanding of the "why" (the math concept) before they master the "how"(procedures). The program offers focus/coherence, rigor, and usability in the classroom. With minimal materials, students are able to move from concrete to pictorial and abstract thinking.

In order to make our model program a success, we knew we needed to involve all stakeholders including parents. This is done through regular parent workshops to teach parents how to support their students during homework time to guide them on their path to mathematical proficiency. These workshops focus on strategies, models, key vocabulary and tips for assisting students at home.

Implementation and Monitoring

When the Common Core State Standards (CCSS) were adopted in 2010, we decided to strengthen teacher and student knowledge of math strategies and practices. Upon making the shift from reliance on mathematical procedures to a deeper mathematical understanding and ownership of mathematical concepts, our staff realized the need to strengthen our own math knowledge and adopt a new pedagogy to implement the new CCSS. As a result, our Instructional Leadership Team sought out professional developments (PDs) such as Singapore Math, Three Phase Math Lessons, and Constructive Conversations. This core team of instructional lead teachers and administrators returned to the school site, developed and delivered high quality PD for all teachers TK through Grade 5 to begin this shift. These PDs were presented first at staff meetings with all staff in attendance and continued in grade level meetings. At these grade level meetings, teachers worked collaboratively to develop the strategies of implementation that were grade level specific. Individual teachers then took these new strategies back to their classroom for instruction. Teachers would integrate these strategies in daily instructional routines and then determine the effectiveness of the strategies implemented based on student achievement. If the lesson designs were

ineffective, grade levels would conduct and participate in lesson studies to strengthen the lesson, and then revisit it in the classroom to reassess its effectiveness. Student outcomes were monitored and discussed during weekly grade level meetings and modifications such as intervention, small group instruction, and after school tutoring were made available as needed. Additionally, teachers met with adjacent grade levels to establish consistent school-wide vocabulary of the discipline and instructional practices. As a result of these practices, a school-wide culture of collaboration and mathematical success were developed.

The adoption of CCSS called for a more conceptual understanding for problem solving-led instruction. Our fourth grade team was the first to make a diligent commitment to using and following the program with fidelity. When they gathered data and shared the growth of their SBAC scores with the staff, teachers were able to see the tremendous growth of the students' math scores. As a result of this success, other grade levels began taking the same approach. This caused a major school-wide paradigm shift. Classrooms are more student-centered. Teachers have become the facilitator of student interactions during Math Interviews, Math Summits, and Constructive Conversations. Teachers are also including daily exit tickets, which allows for daily progress monitoring and provides immediate feedback as well as informing flexible intervention groups in the classroom. In addition, Mid Module and End of Module Assessments are used as summative assessments to monitor students' understanding of concepts and standards taught.

Results and Outcomes

After implementation of the model program, 59% of third through fifth grade students at Chandler Learning Academy met or exceeded standards on the Standards Based Assessment Consortia (SBAC) state test in 2017 in comparison to the district's percentage of 30% and the state's percentage of 37%. We also found a 10% decrease in students at the "not met" level between 2015 and 2016 (from 27% to 17%). When comparing 2015–2016 SBAC scores to what our district considers "like schools" (schools with similar populations), Chandler Learning Academy outpaced other programs by an average of 24 percentage points (53% to 29%).

We also saw growth within the subgroups of our population.

- Socioeconomically Disadvantaged Students: In the 2016–2017 school year, 51.52 % of our socioeconomically disadvantaged students met or exceeded mathematics standards on the SBAC.
- English Language Learners: In the 2016–2017 school year, 44.23% of our English Language Learners met or exceeded mathematics standards on the SBAC.
- Students with Disabilities: In the 2016–2017 school year, 22% of our students with disabilities met or exceeded mathematics standards on the SBAC.

- **Reclassification:** Our reclassification rate of 22% shows that English Learners increased their scores by 8.2 points on the SBAC test in the area of mathematics during the 2016–2017 school year.

We also saw results in ways that cannot be measured with just numbers.

- **Teacher Integration of Technology:** Teachers have become more confident with integrating technology into their math lessons after attending staff-led professional development. Each classroom was given a SMARTBoard and teachers have worked collaboratively to create engaging, thoughtful activities to work with our Concept Driven Math Program. Teachers also have access to an iPad lab that can be used to create multi-media presentations of math problems and solutions to share with others.
- **Parent-Teacher-Partnership Meetings:** After the implementation of the Concept Driven Math Program, we began to see an increased interest from parents about how to help their child at home with mathematics. At parent workshops, we saw an increase from 6 parents in attendance to more than 25 in the upper grades (4/5) and even more in the primary grades (TK–3). By offering training for our parents, we are ensuring that the practices learned at school are carrying over into their time at home.
- **School Culture:** Since banding together to create a common language and methods of solving problems, teachers are finding that students come into the next grade level more prepared, which allows them to spend much less time on review. Teachers do not have to redefine math terms or introduce the same strategies each year because students are coming with the background knowledge from their previous class.