

Shotwell Middle School

6515 Trail Valley Way

Houston, Texas 77086

Principal: Wanda Walker

Shotwell Middle School enrolls approximately 1,200 students in a seventh- and eighth-grade learning community that is centered on improving student academic performance through careful ongoing data analysis. School staff believes in a nurturing, data-driven environment and engages in interdisciplinary practices, such as humanities classes that combine English and social studies. Staff feels that the school's International Baccalaureate program has contributed

strongly to its academic growth. Furthermore, although the district sets a 70% mastery goal for benchmark assessments, Shotwell's principal sets higher expectations of 80% mastery.

- ◆ Middle (7-8)
- ◆ 61% Hispanic
- ◆ 32% Black
- ◆ 4% Asian
- ◆ 2% White
- ◆ 78% Free or Reduced-Price Lunch

Cycle of Instructional Improvement

Administration and staff regularly collaborate in using data to support instructional decision making and assess program effectiveness. The administrative team provides leadership and clarifies expectations for data use, and core subject skills specialists support teachers in the process. Before teachers can make changes, they must show a data-driven reason for the change. The principal noted, "When I make a decision, they [teachers] need to show me the pros and cons and show me that it will work." For example, after noting that students' mastery of learning objectives increased as a result of the uninterrupted blocks of instructional time used during summer school, teachers presented the principal with the data and suggested changes to the master schedule. The master schedule during the regular school year now allows for more instructional time for science.

Data from six-week benchmark assessments are maintained in the districtwide data warehouse system, where teachers can access reports and analyze data during their departmental common planning time. Staff also uses the subgroup master system. This system, developed by another school in the district, provides summative data from benchmark assessments and the Texas Assessment of Knowledge and Skills (TAKS). The system also provides analyses by objective for each subgroup represented in the school. The principal stresses that, in addition to reviewing class-level data, teachers need to disaggregate data by ethnicity to identify students for such programs as English as a second language (ESL), limited English proficiency (LEP), and special education. For example, if two of three White students in a class do not reach mastery, the teacher needs to provide additional support and modify instruction to meet their needs. When teachers note that a particular subgroup does not master an objective, they collaborate to refine instructional strategies, such as engaging hand gestures and movement and using pictures to teach vocabulary to ESL and LEP students.

Support for Teachers for Data Analysis

Skills specialists provide extensive support to teachers in using data and planning instruction. They meet with teachers weekly to analyze data, provide expert guidance and resources for lesson planning and instruction, and help to determine appropriate instructional strategies. The school engages in a clearly articulated reteach/retest policy in which teachers gather by department for an item-by-item test analysis. Based on the number of students who are missing objectives, the teachers identify areas of concern and steps for reteaching. If all students are struggling with an objective, this area is highlighted so that all teachers in the department can systematically reteach the objective through different instructional strategies, additional class time, and/or warm-up activities.

Data are also used to determine professional development that can be differentiated by role and need. All staff participates in training in data transparency and safety and avoiding common data analysis and interpretation mistakes. However, only teachers, administrators, and support personnel receive training in organizing time for collaborative data discussions and using data to answer questions about student achievement. Professional development for the technology specialist and data coordinator focuses on assessing the operability of the data system and managing differentiated access to the data warehouse.

Data for Instructional Improvement

Administrators and skills specialists also use data to find areas of improvement for teachers. Using a standard format, teachers enter their lesson plans into a districtwide data warehouse system. Here, administrators and specialists can review the lesson plans and assess the instructional strategies planned. The school also uses a standard format for entering comments from observations of lessons. Based on alignment among lesson plans, observations, and student data, administrators and specialists can help teachers adjust their instructional strategies. For example, lesson plans for humanities classes showed that teachers provided instruction on complaints from colonists about the Declaration of Independence. Although students identified these complaints on interim quizzes, a majority missed this item on the benchmark assessment. Through careful analysis of lesson plans and observations, skills specialists and teachers noted that the word “grievances” was used on the benchmark assessment, but that word had not been explicitly taught during the lesson. When instruction was modified to teach the word “grievances,” students demonstrated mastery on the objective.

Data Analysis to Support Students

Staff conducts universal screening for Response to Intervention (RtI) to address three areas: the district’s population of English language learners and students from low-income families, the state’s high rate of dropout, and student migration. Screening results for RtI are entered into a database that creates reports indicating where students score in relation to grade-level averages. These data are then examined in conjunction with results on benchmark assessments and TAKS. Students who achieve below the average ranges are provided interventions with classroom, special education, and/or RtI teachers through a pull-out program or small-group instruction in the classroom. Each week, the RtI teacher conducts progress monitoring to determine ongoing student progress and continued areas of need. When students exit the pull-out program, they complete the Exit Survey and Reflection. This survey asks students about which assignments helped them master the content, why these assignments were helpful, how challenging the assignments were, and how the pull-out program could be improved. Teachers review these surveys and make appropriate changes to the program.

Individual student tutorials are purposefully planned. Teachers create tutorial rosters based on results from the six-week benchmark assessment, and students who do not reach the 80% mastery goal are pulled out of elective classes for additional instruction. Students are reassessed and placed back into their elective classes when they demonstrate mastery. This cycle restarts with each six-week assessment cycle.

Staff also uses data to ensure that students who score in the advanced range are adequately challenged and continue to make progress. Additionally, because the district identifies and requires over-age students to be “bumped up” to an appropriate grade level, the school keeps careful track of these students.

Student Use of Data

Students are actively engaged in using data and setting learning goals. They review and track their assessment scores and progress on outcomes. Students complete Data Analysis Booklets (DABs) after each interim assessment in English and reading and develop a rubric for assessing their DABs. Students are required to note all incorrect items, explain why they chose that answer, analyze other answer choices, and describe specific strategies they will use to identify the correct answer on the next assessment. Learning how to justify an answer and reflect on their choices helps students to “dig deeper” and think about answers before they choose them. According to students, completing DABs helps them to identify past mistakes and strategies to improve and master the objective, such as recognizing context clues or rereading a passage. Even students who answer all of the questions correctly must self-assess whether they were lucky or genuinely knew the answer. In this way, all students take greater responsibility for their learning and growth.

Teachers use students’ reflections on the DABs to plan lessons and identify specific areas for reteaching. For example, based on feedback from students, teachers learned that students answered a question about land breezes and sea breezes incorrectly, because the assessment used the term “ocean breezes” rather than the term taught during the classroom lesson: “sea breezes.”

The principal reinforces the strict, data-driven nature of the school and the importance of using data to improve teaching and student achievement. The principal also ensures that staff has the knowledge and skills to use data effectively. Because teachers have immediate access to data, they are (a) held to higher expectations regarding teaching quality, collaborative practices, and responses to challenges and (b) expected to engage in a high degree of rigor for all aspects of instruction.