**PDSA SCENARIOS**

**Kindergarten Letter Recognition Scenario**

Mr. Sanchez is a kindergarten teacher in a full-day program with twenty-one students and an Educational Assistant (EA). The kindergarten has a reading goal that every student would know her/his letters and consonant letter sounds by the end of the second nine-week grading period. His students have been working on letter–sound recognition since the beginning of the school year. The class’ data charts documenting progress in meeting this goal are posted in the classroom.

However, the results of the recent 12 week short-term cycle reading readiness assessment showed about one-third of the students are still struggling with some letter recognition and letter-sound associations that they should have mastered. Mr. Sanchez thinks that if these students received targeted instruction, additional practice, and individualized assistance then all his students will meet kindergarten’s mid-year reading goal. While discussing his plans with the EA, she recommends getting the parents and families involved. She volunteers to collect some resources to make fun study kits for the students to practice their letters and sounds at home.

Over the course of the next few weeks Mr. Sanchez makes several changes in his instructional approach. Instead of doing only whole class instruction, he puts the students in small groups so that he and the EA can work with small groups of students to re-teach and individualize learning. He and the next-door kindergarten trade students with his more advanced students going to her room and her students who need re-teaching coming to his class. The Title I EA also comes to Mr. Sanchez’s class. That way there are 3 adults to run 4 or 5 small learning groups. In addition to the starting each class with Brain Gym, or kinesthetic body movements that help program their brains for learning, students are doing more rhyme, singing, and movement activities.

The students were very excited about the activity packets that went home every week. Even several parents had called or sent positive notes about them. In his research Mr. Sanchez came across the idea of asking families to designate a study buddy or buddies to work the child at home and sign off on activities completed at home. The next bi-weekly class newsletter explains study buddies, signing off for activities completed, and the reward incentive program if the class meets their home-study reading goal.

The results of the mid-year reading assessment reveal many of the struggling students have made real gains in reading readiness with only 8% of the students not making the kindergarten’s reading goal. This data is very encouraging to Mr. Sanchez and the other teachers. Obviously, something more will have to be done for the students who still haven’t mastered the letters and letter-sounds. Maybe it’s time to tap into the expertise of the Special Education teacher assigned to first grade.

**Elementary Discipline Scenario**

At the most recent Longview Elementary School staff meeting the principal, Ms. Betterly, had expressed her concern about the number of discipline issues she had dealt with in the past several weeks. She felt as if dealing with misbehaving students and their parents had become her only job! It certainly was taking away valuable time from her primary responsibility to be an instructional leader and get out in the classrooms. In addition, the high number of
discipline incidents was really detrimental to the school’s reputation in the community and the quality of the school environment as well as the students’ and staff’s enthusiasm for school and learning. Something had to be done and she wanted to work the staff to address this problem.

After some discussion, a Positive Behavior Committee (PBC) was formed with one teacher from each grade level. Since this problem needed to be addressed quickly, it was decided the committee would report back to the principal within a week’s time with some preliminary recommendations. And at the next staff meeting, in two weeks they would present an action plan.

The PBC met the next day and decided that they needed to analyze the available data for incidents of misbehavior. Using the behavior reports that were on file in the office for the last month, they charted the total number of incidents, the incidents per grade level and per classroom. They noted where and when the incidents occurred as well as the type of misbehavior and who was involved.

The committee’s analysis of the data showed that more than 50% of the behavior incidents happened at the bus stop or on the bus, and before school started when all the kindergarten through fifth-grade students were together on the playground. After presenting the data to the principal the committee recommended to add one maybe two staff members to the early morning playground duty, designate different areas of the playground for each grade level, work with the bus drivers to implement behavior plans, have monitors at the troublesome bus stops, meet with parent(s)/guardian(s) of students with a pattern of misconduct on the bus or at the bus stop to develop behavior contracts, and have each grade-level team develop and implement positive behavior activities.

Over the next month all of the recommended actions were implemented. After the one month, there was a dramatic drop in the number of behavior referrals due to misconduct at bus stops, on the bus, and from the early morning playground. The bus stop monitors and bus behavior plans were making a difference. In fact the bus drivers had decided to enhance their efforts and give a monthly Best-Behaved Bus Award that the winning bus would proudly display for a month. The staff decided to reduce the additional morning duty people from two to one. The students were doing okay with the designated areas. However, the students had asked about rotating the areas so they could have turns in different play areas. The individual behavior contracts were working with some students but not with other students. This issue needed further attention.

The staff voted to keep the PBC and have the group continue monitoring the data and report out at every faculty meeting as well as work with the counselor to combine the different grade-level positive behavior activities into one school-wide program. They also suggested that the behavior data be shared every Monday in the weekly staff memo as well as in the monthly newsletter. The principal thanked the staff for working together to address this issue and appreciated their continued support.

**Middle School Attendance Scenario**

Cherry Creek Middle School has a school goal of maintaining a 95% or higher rate for student attendance. In order for a student’s attendance to contribute to the daily average, s/he has to be at school all day from the first through the seventh-period class. The school’s daily attendance percentage is posted on a chart in the hallway. In addition, grade-level attendance
graphs, on display in the sixth, seventh, and eighth grade hallways, are updated with the weekly student attendance average for that grade. At the end of the month the principal announces the grade level with the highest rate of attendance for that month. This information is also published in the local newspaper and the school newsletter. In addition, if the winning monthly average exceeds the school’s goal of 95%, students in the winning grade are rewarded by choosing an activity or activities of their choice in place of one Friday afternoon of regularly scheduled classes.

During the seventh-grade team’s weekly Tuesday lunch meeting, Mr. Greenland, one of the teachers, said he was concerned that for the past month the seventh-grade students had only averaged an 87% daily attendance rate, well below the school’s goal of 95%. He was especially concerned because he was falling behind the curriculum timeline and having to teach the same thing several times. And most importantly, the students’ grades were falling. He felt that something needed to be done soon and whatever was implemented should be done by the team across all seventh-grade classes. Since the end of the nine-week grading period was in two weeks and Parent-Teacher Conferences would be the following week, this would be a good time to implement some activities. The other teachers agreed and they decided to meet on Thursday afternoon with their daily attendance percentages for the past month and some ideas to address the situation.

At Thursday afternoon’s meeting the teachers analyzed their student attendance data by comparing classroom and individual percentages, by week, by day of the week, and by class period. Their analysis revealed that two of the four seventh grades had somewhat higher absence rates and that within these classrooms two or three students were absent a lot. Mondays and Fridays were the days when most of the students were absent. There was a consistent pattern of tardiness with some students not getting to school until the second-period class. Once again, it appeared that a handful of students were regularly tardy. When the teachers calculated the attendance rate without including the students who were consistently absent or tardy the attendance percentage increased to an average of 92%.

The next day the seventh-grade teachers discussed the attendance rate issue with their homeroom students and asked them for ideas on how to improve attendance and decrease tardiness. At the next weekly team meeting, the teachers finalized their list of attendance improvement activities. A letter, which needed to be signed by the student and her/his parent/guardian, and returned, was sent to all the parents/families of the seventh-grade students. The letter reinforced the importance of daily attendance at school and being on time, and outlining the activities to improve student attendance. The class’ attendance rate was posted daily in every seventh-grade classroom. Ten extra credit points were awarded for attendance and punctuality to every seventh-grade student at the beginning of every week, and one point was deducted for every absence or tardy. Students maintained their own attendance and tardy records in their data folders. Teachers met with the consistently absent/tardy students and their parents/families to determine what needed to be done to improve these students’ attendance.

At their weekly team meeting two weeks after implementing the activities the seventh-grade teachers revisited the attendance data, which showed that the average weekly attendance rate for the seventh-grade students had improved to 90%. Since the preliminary data indicated that the activities were making a difference, the team decided to stay the course and continue to monitor the situation. They also agreed that Friday’s Parent-Teacher Conferences provided them with an opportunity to get signed letters from parent(s)/guardian(s) that hadn’t signed it; to
Middle School Math Scenario

After four years of teaching 8th grade math to gifted students, Mrs. Variable found herself teaching a mixed group of gifted, below average, and average students. In November, at the bi-monthly 8th grade Math Data Analysis Tracking (MDAT) Team meeting, Mrs. Variable was pleased that her gifted students were performing above grade level and her below average students were making progress toward grade level. However, another teacher on the team pointed out that the overall performance of the average students who entered at grade level was starting to decline. Mrs. Variable decided that this was a trend that needed to be nipped in the bud.

The MDAT Team brainstormed ways to gather data to ascertain what was happening in Mrs. Variable’s class. They decided to conduct an attitude survey of the students and have a peer teacher observe a couple of Mrs. Variable’s classes to see what techniques she was using and how to improve. Data analysis from the survey and observations indicated that:

- The average students had low confidence in their math ability and low-perceived support in math.
- The below grade level students had low confidence in their math ability but perceived high math support from the teacher.
- The gifted students had high confidence and high-perceived math support.

These results, along with the peer teacher’s observations, led Mrs Variable to the conclusion that her teaching methods were more supportive of the gifted students. For example, when she asked a question, gifted students quickly answered with correct responses, which led her to believe that everyone had understood the concept. The students below grade level were receiving after-school tutoring services, which is why they were still making progress.

Mrs. Variable worked with the teachers on the team and did some online research to help her with new teaching strategies to try and teach to all of the students in his class. At every meeting, the MDAT Team reviewed the data and by February, the data showed that all students were making progress in a positive direction. The gifted students’ scores went down slightly in December, when Mrs. Variable began teaching with new strategies, but by February, they were back on track.

In March, Mrs. Variable conducted the attitude survey again and asked for another peer observation. Results showed a minor dip in gifted students attitudes, but overall upward gains in both math confidence and perceived math support for the entire class. The peer observer noted that there was indeed a significant change in teaching strategies and greater diversity in which students responded to questions.

Mrs. Variable was pleased with these results but had recently noticed an interesting occurrence in the entire 8th grade math data that she was looking forward to analyzing with the MDAT Team on Monday…

discuss the attendance improvement activities in greater depth; to survey parents about the issue; and to showcase how the students’ attendance rate had already improved.
High School Science Scenario

Mrs. Whatsit, the 10th grade science teacher, went to her principal early in the semester with a nagging concern about her students’ science skills: they seemed unusually below grade level. The principal wondered if any of the other science teachers had similar concerns and gathered the science teachers for a brainstorming meeting and found that the concerns regarding below grade level skills appeared to be common with the 9th and 10th grade science teachers.

After brainstorming several ideas to gather data on the problem, all science teachers agreed to find or develop an appropriate science skills test for every grade level and administer to all students. Additionally, one teacher recommended that a Science Task Force (STF) should be started. Each grade level started an STF Team to analyze grade level data. Then a representative from each grade level was sent to take part in an all grade levels Science Task Force meeting. Representatives came to the all grade levels STF meeting with their grade level data.

From the science skills grade level testing, the science teachers were able to determine that the 9th and 10th grade science teachers’ concerns were verified by the data. Additionally, they found that the problems were most notable in the area of the scientific method. The STF recommended that time and resources should be allocated to create a beginning of the year Science Skills Boot Camp for the 9th grade incoming students thus preventing this problem in upcoming years. In the meantime, the curriculum for the existing 9th and 10th grade students was modified to incorporate more teaching and learning about the scientific method.

Towards the end of the year, skills re-testing and data analyses showed that 9th and 10th grade students were back to performing at grade level. Over the summer, a group of the science teachers developed the new Science Skills Boot Camp curriculum. Once implemented, they hoped the data would show that they were doing the right thing. Of course, only testing, data analyses, and time would tell…

As the DATA Turns 😊

High School Algebra Scenario

Ms. Garza is a high school math educator who teaches Algebra I to ninth graders. After reviewing the students’ scores on the most recent unit test she knew something had to be done. Students in two of the classes had really bombed both unit tests. The test score average for one class was 43% and only somewhat better at 56% for the other class. Some of the students in each class had passed the test but just barely with scores in the low 70’s. For sure she would have to re-teach the material. However, she knew things would have to change.

First, Ms. Garza did an item analysis of the post-tests to determine where to target instruction. The class results would be shared with the students. She created folders for each student detailing her/his test results. Then, she decided to redesign several of the algebra lessons using a more inquiry-oriented approach with students working in small groups, presenting and discussing their work. She also met with a small group of fellow math teachers and asked them for help. Several of the teachers said they would recruit upper-class students as algebra tutors. These students would earn credit for tutoring and release time from their regular math class to assist Ms. Garza’s students. Ms. Garza also decided to provide more study hall time to assist her students by opening her classroom thirty minutes before the first period. Her algebra students were welcome to attend study hall to complete their math homework with or without assistance,
to use the computers and access tutorials and additional practice problems, and or work with a peer-tutor.

After two weeks of implementing the changes, Ms. Garza did a Plus (+)/Delta (Δ) with the students to see what was working (+) and what needed to change (Δ). Overall the students’ responses were supportive of the changes. They felt they were learning and understanding more algebra by working in small groups. However, they would like to have quick un-graded quizzes once or twice a week just to test themselves instead of waiting until the “big” unit test. They asked for some computer time built into the regular class time to work individually or in teams of two. Also they wanted to work with the same peer-tutor and to have the decision about having a peer-tutor be a voluntary choice. Ms. Garza thought these were reasonable requests and agreed to make these changes.

When the next unit test was administered Ms. Garza was delighted to share the results with the students. The class that had averaged 43% raised their average to 77% and the class that had averaged 56% raised their average to 81%! Some students scored in the 90’s and only 5 students failed. The students thought they might have done even better if Ms. Garza had hosted a review and study session before the test. She decided to do just that before the next unit test.