Using Goal Setting to Positively Impact Kindergartners’ Achievement

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Last summer, I was sitting in an AIM4S™ training looking ahead to my second year of teaching kindergarten and wondering how I was possibly going to use a PDSA (Plan Do Study Act) cycle with my students. I find it challenging to use data in order to drive my instruction, yet I was presented with the idea of students using data to drive their achievement. What in the world does this look like in kindergarten? In part, this question drove my instruction this past year.

Plan, Do, Study, Act. What does this mean to a 5-year-old? Not much. Yet at its core, this idea of creating a plan, determining what steps must be taken to realize the plan, analyzing progress, and planning next steps is the very process that helps everyone to accomplish tasks successfully. In simple terms, PDSA is goal setting. Goal setting is accessible to 5-year-olds. I just had to determine an entry point to begin teaching my young scholars what goal setting means, what it looks like, and how or why it is meaningful.

I was once again stumped, until I attended an AIM4S™ classroom demonstration. Lisa Meyer, of DLeNM, was guiding second-grade students through a lesson on place value when she did something very curious. There were some spritely behaviors, so she set up a class PDSA chart that addressed the three standards she expected students to adhere to during the lesson: show respect, make good decisions, and solve problems. When the lesson concluded, she reviewed the PDSA chart and asked students to reflect upon how they met the standards. Bingo! Using concrete classroom behavior expectations to begin teaching goal setting would be my entry point.

Excited about my idea, I jumped straight into the fire. I got to school and created two PDSA charts to use in Math and English language arts (ELA). Step one was to ask students what our goal should be for today’s lesson. Step two—as soon as those words were spoken I realized that my young scholars had no idea what I was talking about. Step three was to take a step back and rethink: What do my students need to understand in order to engage in goal setting? They need to know what a goal represents and why it is important to them. And so I began contemplating a different entry point.

I decided to first approach goal setting with students individually. We created a personal PDSA document for each student in both ELA and Math. I conferenced with each student and asked them what they wanted to learn and how they thought they could learn it. Nearly every student said they needed their parents’ help and for me to teach them. Next, I asked what they were going to do to achieve their goal. This was a challenge! Ultimately, most responses were things like practice counting, recite the alphabet on the playground, and ask for help. Then, I asked students how we would know when they reached their goals. Some suggested that I ask them to count or identify letters and sounds, and a few said they would let me know when they were ready.

Just before parent/teacher conferences, we reviewed their goals and made adjustments. When I met with their parents, I went over the student goals and asked parents how they were going to support their child and me in achieving these goals. The experience was eye-opening as I witnessed how many parents had never considered their contributions to the academic success of their children in this way. Student goals were revised throughout the year with proficiency to the standards being the benchmark. Some students fell shy of the benchmarks while others surpassed the standards. For my students who owned their goals, achievement increased on a steeper curve than for students who did not seem to value their goals.

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Through student conferencing, it became crystal clear that goal setting needed to be intentionally taught to students. At this point, each student had a personal experience with goal setting and a foundation to build upon and facilitate goal setting in the classroom. Going back to my initial attempt at using a class-built PDSA, my first step changed drastically. Rather than ask my students for a goal, I began by explaining our task for the day and why it was important. At that time, we were trying to establish independent literacy rotations. The students were taking too much time to transition between stations, and I was spending too much time reminding them of the behavior I expected while they were working. The students were frustrated they did not get to visit all of the stations, and I was frustrated I was not getting to work with all of the groups.

In order to increase our success, we set up a class PDSA chart. Our goal was to complete three 10-minute rotations before our pullout. Our plan was divided between teacher and student. The students wanted me to just “teach them.” I agreed to this, but also suggested that if I set the timer, transitioned with our word of the day, and played soft music these strategies should help us be successful. The students agreed to “be good” and “not hit or kick our friends.” I suggested if they spoke quietly and stayed focused on their task we would be more successful. We decided that if we completed three rotations, we would meet our goal.

On our first attempt, we completed one rotation. When we debriefed and created our action plan we agreed that “Mrs. Miller forgot to set the timer,” and we started rotations late. We kept the same PDSA for a week, and by Friday, rotations were going smoothly. By using the PDSA in this manner, my students learned strategies they needed in order to be independent. As the year went on, they were increasingly specific regarding what they would do. Their requests to me included: “don’t forget to set the timer,” “play guitar music,” “spread us out more,” and “make sure we made smart choices where we are sitting.” Additionally, they agreed to “be a professional and do my best,” “talk quietly,” “stay focused,” “ask my friend,” and “help my friend learn.” My students learned to identify the strategies that helped them become successful, independent learners.

In Math, our class PDSAs were more data specific. Counting to 100 was part of our daily routine early in the year. I expected that by January most of my students would have mastered counting to 100. Assessment data spoke otherwise. In an inclusion class of 27, seven students were counting to 100 and one was stuck somewhere between 70 and 80. The vast majority of my students were stuck at 29 or 39. Consequently, we created a class PDSA with the goal being counting to 100 or 120. Then, each student present that day placed a dot with the number they counted to on a black rectangle (0–49), blue rectangle (50–99), or red rectangle (100+). As we analyzed the dots, students immediately gasped as they realized most of the dots were on black. I was honestly surprised that, without saying a word, my students fully understood the message—we’re behind.

Why does it make sense to teach kindergarten students about goal setting?

The question is not new and interest has been renewed in recent years. In 1997, Albert Bandura described a critical component of goal setting as self-efficacy. Bandura (1997) describes self-efficacy as a “belief in one’s personal capabilities” (p. 4). Simply believing in one’s self is not enough in and of itself to be successful. Hallenbeck and Fleming (2011) assert that “goal setting is not an innate skill” (p. 38) and that achievement of goals is based upon learning how to set achievable milestones and planning a route to reach them (p. 38). A study by Arslan (2012) reports that students stated their self-efficacy beliefs increased with successful performance accomplishments in the academic environment (p. 1918). Setting goals and then analyzing data which indicates goal achievement provides students a venue in which they can own their learning. Moreover, goals become something tangible and concrete even though the goal itself may be abstract.


Reflecting upon my year, I learned a few things. First, giving primary students the power to recognize strategies that help them learn and be successful gives them a personal reason for engaging in learning. Second, parents need to be an intentional part of the learning cycle. Third, as students articulate and justify the strategies that help them learn, they develop rich oral language skills that spill into all content areas. Finally, using the PDSA process and having intentional discussions on the strategies that are helpful in the learning process seems to place students on a steeper trajectory toward academic success, which is critical for students’ achievement and efficacy as thinkers and learners.

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Class PDSA for “counting to 100”

Two weeks later, the data was significantly different. Only 10 students had not reached proficiency and six of those were really close. I shared my success with my grade–level team, and they all did something similar with their students. The results were impressive as the grade level reached proficiency in rote counting.

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