

Focusing on the Participation and Engagement Gap: A Case Study on Closing the Achievement Gap

Douglas Fisher, Nancy Frey, and Diane Lapp

Health Sciences High & Middle College

In this case study, we focus on 2 variables often neglected in conversations about closing the achievement gap. Most recommendations for closing the achievement gap center on extending learning time, including afterschool programs, extended year programs, and supplemental instruction. Our school focused on attendance and student engagement in our effort to close the achievement gap. By developing a schoolwide plan that ensured that attendance was noticed, corrected, and celebrated, students at our urban school began attending on par with their suburban counterparts. In addition, we focused on student engagement once they were at school. Through a number of schoolwide instructional routines, including teacher modeling and productive group work, students became involved in learning and their achievement improved. Together, these initiatives further closed the achievement gap.

The difference in academic achievement between White students and Black, Latino(a), and Native American students in many communities is, justifiably, a source of great concern. This ethnic/racial achievement gap is wide and, as of yet, persisting despite several well-intentioned efforts to close it (Lee, Grigg, & Donahue, 2007). There have been commission reports, task forces, and research efforts focused on causes and solutions to the achievement gap. In California, for example, the State Superintendent of Public Instruction made the achievement gap his second-term priority and developed a new Web site for people to share information about this pressing issue (www.closingtheachievementgap.org).

The No Child Left Behind Act (NCLB) focused increased attention on the achievement gap. NCLB requires states to set the same performance targets for children:

- From economically disadvantaged families,
- with disabilities,
- developing English proficiency, and
- from all “major” ethnic and racial groups.

In doing so, new data confirmed that there are groups of students reading and writing at unacceptably low levels. Common recommendations for closing the achievement gap focus

on after-school tutoring, extended school years, and remedial English and math classes. But at our school, these were not sufficient to close the achievement gap.

As we reflected on students who were among the lowest performers at our school, we noticed problematic patterns in their attendance and engagement. What we saw was that the low performing students exhibited a pattern of absenteeism and a lack of engagement when at school. Although additional factors may contribute to the low performance of these students, we have found that paying attention to their school attendance and engagement has allowed us to address the achievement gap with them. In this case study, we focus on the efforts to close the achievement gap by adding a focus on attendance and student engagement. After providing information about the school, we describe the attendance improvement efforts that were initiated, including noticing absences, resolving absences, and celebrating attendance. We then turn our attention to student engagement. Once students are in school, we have to ensure that they engage with the content. This is accomplished when teachers use an intentional instructional framework that provides students with opportunities to have thinking modeled for them and to engage in productive work with their peers.

HEALTH SCIENCES HIGH & MIDDLE COLLEGE

Health Sciences High & Middle College is a small learning community school that educates about 500 students in grades 9–12. The school is culturally representative of the community overall, with a student population that is 44% Latino/Hispanic, 22% Black, 16% Asian, and 18% white. The school has chosen a career focus but only approximately 50% of the students are interested in health professions; the other 50% of the students attend because of the location. Like many economically poor urban schools, our student profile is one that includes significant numbers of students living in poverty (over 60%) and large numbers of English language learners and students who speak languages other than standard English at home (over 70%). In addition, Health Sciences High & Middle College is located in a geographic area identified by the police department to have among the highest crime indexes in the city (three times the city average). Further, teen pregnancy rates and indices of childhood asthma and obesity are elevated in our community.

Initial Data Collection

We decided to collect a snapshot of data regarding the attendance patterns of our students to determine if our hunch about the correlation between attendance and performance was valid. For 4 months (September 2007 through January 2008) we tracked the attendance patterns of the academically top and bottom 10% of our students. We tracked these data only for 4 months because we wanted to have an opportunity during the remaining months of the school year to formulate an intervention plan that would alter a cycle of absenteeism that might, hopefully, reflect a change in school attendance, engagement, and academic profiles. In fact, after 1.5 years of implementation of our plan, our school now has an attendance rate of 95.6%, a rate comparable to suburban schools.

Table 1 identifies the demographics of the top 30 performing students academically, according to state testing information, as well as the lowest performing 30 students of the student body.

TABLE 1
Demographics of Top 30 Performing Students

<i>Ethnicity</i>	<i>Top 30 Students Academically</i>	<i>Bottom 30 Students Academically</i>
Latino/Hispanic	1	14
Black	1	15
Asian	6	0
White	22	1

What We Found

The attendance patterns between these two groups were significantly different. The lowest performing group of students missed an average of 6.5 days of school per month, with a range of between 3 and 15 days per month. In other words, none of these students missed less than an average of 3 days of school per month. In comparison, the highest performing group of students missed an average of 1.8 days of school per month. Several of these students had perfect attendance and none of them missed more than 4 days per month.

ATTENDANCE MATTERS

Simply stated, it's hard to learn when you're not at school. Study after study describes the impact that poor attendance has on student achievement. Chatterji (2006) analyzed the reading achievement of African American children and found that attendance rates and reading time at home explained the variance in performance between these students and their White counterparts. This trend is evident from elementary through college (Halpern, 2007; Nelson, 2005).

Sadly, attendance patterns of students of color are poorer than their White counterparts. Data from a local school district that was willing to share information supports the difference in attendance patterns we saw at our school between ethnic groups of students. For every day a Caucasian student is absent, African American students miss 2.7 days and Latino students miss 1.9 days. That's two or three times the number of days of school missed. There are individual students with exceptionally good or bad attendance within each cultural group, but the trend is clear.

Attendance is rarely considered as part of a comprehensive effort to close the achievement gap. However, similar to the data at our school, national data clearly suggests that attendance may be a major component in some students' lack of school success (e.g., Roby, 2004).

What We Did to Improve Attendance

We began by sharing our 5-month data collection with our colleagues at school. They were startled by the numbers, and a few moments later were nodding their heads in recognition of the absentee patterns among some of their students. "I guess I've just grown used to the idea that [student's name] isn't going to be there 5 days a week," remarked a mathematics teacher. A science teacher interjected, "But shouldn't we expect that? I know we are always looking to

keep our relationships positive with students, but it really shouldn't be OK for them to miss a day or 2 every week." Another science teacher said, "What's the expression? 'The soft racism of low expectations.' We need to find ways to let them know it matters when they're not there." So began a series of conversations among our faculty about making this a focus of a schoolwide effort to increase attendance. From the start, they agreed that the intervention couldn't be punitive ("They're not going to respond positively to a negative system," said an English teacher) and should build a sense of community among students. Within a few weeks, a schoolwide plan was in place: notice absences, reverse unexcused excused absences, and celebrate attendance.

Noticing absences. Each time a student is absent, a personalized note is mailed to their home. These preprinted notes have the school name and logo on the cover and the words "we missed you today" on the inside. The administrative team signs the notes in advance and the school secretary adds a note specified by the administrative team, addresses them, and mails them to each missing student. The message changes each month, but always indicates that the student was absent from school and that he or she was missed by teachers and peers. Over time, the teachers began stopping by the front office to add short notes on cards for specific students. This became part of our daily routines. This is when we knew that this had become a schoolwide effort.

We knew this component of our intervention was working when a student wrote back saying, "I didn't know it mattered I was gone. I missed you too. Thank you for that note. It made me feel special." During the second year of our study, a student said to his teacher, "I got that note. Nobody ever missed me before."

In addition to the cards, a member of the administrative team and a teacher make a home visit for every fifth absence, regardless of whether the absence is excused. Based on the daily attendance list, which now includes cumulative days absent, students and their families are visited to discuss the importance of school attendance. For example, on the visit to discuss his tenth absence, a student said, "Are you gonna keep coming when I'm gone from school? I was sick this time." To that, we responded that we just wanted to check on him, make sure he was getting along well, and offer any help we could ("Like chicken soup," the principal said).

Reversing unexcused absences. We employ a social worker assistant, a paraprofessional funded from Title 1, who has developed relationships with the local police department. On random days, the social worker assistant takes the unexcused absence list and goes door-to-door looking for students. Quite frequently, he finds the student at home still in bed or at home watching television. More often than not, an adult is at home too. In some cases, the parent tells us that they like the student to stay home because when their other children are at home, the parent doesn't get a chance to individually visit with each of their children. Although this parent-child interaction is certainly a practice we favor, the social worker assistant shares with the parent that it cannot occur during the school hours. When a student is found at home without an adult, the social worker assistant calls a member of the administrative team, who calls the family. When the student does not have permission to stay home, the student is transported to school at that point. If the student isn't at home, a call to the parent often results in identifying the student's location. When found, a truant student is transported to school and the family is called. For students who are truant three or more times, the police are notified and they pick up the student and take the student to the local police station. At that point, a family member

is required to pick up the student. In addition, when the total truancy exceeds 10 days, a report is filed with the child protection agency and they begin their investigation of the circumstances. This attention to the truancy issue has had a significant impact on student absences. When the student returns to school they are warmly greeted. We want school to be a place where students feel welcome, even after they make a mistake like skipping school.

Celebrate attendance. This is perhaps the most visible aspect of our attendance plan. The daily attendance rate is posted by grade level in a prominent place in our school. Visitors, families, students, and faculty see the previous day's attendance rate of each grade level. The result has been equally public discussion of the attendance rates, ranging from good-natured ribbing in staff meetings ("What's up with the seniors?") to e-mail exchanges among teachers ("Let's hear it for 9th grade! 100% baby!"). Families have commented on the impact of a day missed by their child ("I didn't realize that keeping him home this week to help his cousin move made such a difference.") When we instituted a small reward for any class with perfect attendance (a slice of pizza with their lunch), we actually had entire grade levels conspiring to win ("No one be absent tomorrow! Don't mess it up!")

We're All Here, Now What?

Getting students in the classroom is one issue; what happens when they get there is another. The discourse of the classroom plays a role in the participation and engagement of learners. In too many classrooms, the dominance of teacher talk fosters student passivity.

Initiate-respond-evaluate versus conversational exchanges. Despite 2 decades of research on the topic, the primary pattern of classroom discourse is IRE: initiate-respond-evaluate (Mehan, 1979). Exchanges sound something like this:

Teacher: What are the names of the particles in the nucleus of an atom? (*Initiate*)

Student: Neutrons and protons. (*Respond*)

Teacher: Correct! (*Evaluate*) What is the name of the particle that orbits the nucleus? (*Initiate*)

And so it goes. This type of discourse doesn't do much for student engagement. We've heard students refer to this as "guess what's in the teacher's brain." After a bit, they become savvy to the idea that the teacher will persist until someone answers correctly and then move on to a new question.

This discourse pattern is culturally bound. Heath (1983) documented the bewilderment of young African American students who couldn't figure out why the teacher would ask questions when she clearly knew the answer. More recently, a study of discourse patterns of Inuit and non-Inuit teachers found that the former group rarely used IRE, instead relying on "longer interactional sequences in which the explicit evaluative component was absent unless an error occurred. The correctness of student responses was implicitly signaled through the continuation of the teacher-student dialogue" (Eriks-Brophy & Crago, 2003, p. 404). Furthermore, when a student responded incorrectly, these teachers relied on what the researchers coded as a "small *e*," indirect evaluation "in the form of repetitions, recasts, teacher models, requests for clarification and/or acknowledgment, or through nonverbal means" (p. 405). This research highlights what has been known about the nature of learning for many students, especially those

who come from cultural experiences that place a high value on cooperation, group interactions, and conversational communities (e.g., Pewewardy, 2002; Valdés, 2001).

What we have attempted to do at our school through professional development work with teachers is change their IRE patterns of questioning to a discussion, more conversationally-based approach to questioning described by Applebee, Langer, Nystrand, and Gamoran (2003). They describe discussion-based interchanges as open discussion: “*free exchange of information* among students and/or between at least three participants that lasts longer than 30 seconds. The three participants may include the teacher, although the teacher may be deliberately silent during some discussions” (Applebee et al., 2003, p. 700). We focused on looking closely at research findings about discourse and the instructional design that support it.

Addressing engagement in the classroom. As with our attendance intervention, we began by making academic discourse a focus of professional development at the school. Starting in the spring of 2008, we focused our biweekly professional development sessions on different aspects of this topic. Each professional development session was led by a different team of teachers, who shared their practices with the rest of us. When one team used video captured in one of their classrooms, the practice caught on. Subsequent teams each used a few minutes of video of themselves to demonstrate discourse practices in their classrooms. Consider the following excerpt used by an English teacher at our school:

As I listened to your impressions about the censorship issue in *The Day They Came to Arrest the Book* by Nat Hentoff, I was reminded of how many times throughout history books have been banned or burned. Remember that this occurred in Germany during the Second World War. Hitler tried to suppress learning; he knew that knowledge is power and that people learn much from what they read. Also think about the slaves and how they were not allowed to learn to read because their masters wanted to have power over them. How would you respond if I began to censor what you were allowed to read in this classroom? Could I convince you I was trying to protect you from authors who were trying to corrupt your minds? What would you do? What did people throughout history do when their books and thoughts were censored?

This teacher wanted to hear the voices of her students. She invited them to partner talk about this question and then to share as a whole. She also later invited them to explore this topic online and then to return for additional conversation. The role of the teacher and the students become blurred; she built from their thoughts and they from hers. In a conversational situation like this, students are encouraged to communicate and to hear what each other think about a topic. Because the pressure is low, everyone feels invited to talk and also to revise their ideas when they are offered new insights. Students are engaged when their thoughts and voices are valued and when the curriculum relates to their everyday lives.

We suspect that at least part of the shift to more meaningful discourse was due to the attention of the video camera. We noticed that teachers who were preparing to be filmed were more intentional about their practices. A history teacher told us, “I have to make sure it [student discourse] shows up on camera. Otherwise, it will just seem like I’m the one doing all the talking.” Again, public conversations about discourse resulted in attention to the subject and an increase in student participation.

Fostering practices that promote discourse. This conversational approach to communication decreased our second related concern, which is the dominance of teacher talk at the expense of student participation. Flanders (1970) reported that only 5% of teacher talk

was related to student ideas, and that 15% consisted of questions, mostly of the interrogative kind. Interestingly, he also found that the overall ratio of teacher talk to student talk differed according to achievement levels. Teacher talk represented a lower percentage of overall instructional time in high-achieving classrooms (55%) versus those identified as low-achieving (80%). More recent research on critical pedagogy and critical discourse analysis of classroom experiences of African American and Latino students reveals that the power of the conversation, especially as it relates to Standard English forms, is weighted toward the teacher, and student voices and perspectives are marginalized (e.g., Alim, 2005; Godley, Carpenter, & Werner, 2007).

Our solution has been the development, implementation, and refinement of an instructional design model based on the gradual release of responsibility (Fisher & Frey, 2008; Pearson & Gallagher, 1983). In this model, students are expected to interact with one another and their teacher based on modeling provided by the teacher. On a daily basis, students are expected to use academic language and discipline-specific thinking as they work together collaboratively. This productive group work, in which individual students are accountable for interacting with their peers, is connected with guided instruction from the teacher, clear modeling of the thinking required, and eventually independent work that students complete.

Productive group work is the linchpin for learning. Students collaborate to refine new learning through tasks designed to promote interaction. In the company of fellow novice learners, they ask questions of one another, clarify understandings, demand justifications, and formulate ways to complete the assignment. It's noisier, to be sure, but administrators and teachers understand that this is what learning sounds and looks like. Students, otherwise left to fend for themselves through independent work, have the *safety net* to hone their learning before attempting it alone. The results, in our experience, are more engaged and motivated students who are confident in their abilities to do the work correctly and teachers who are better able to evaluate the effects of their instruction.

Our colleagues have been invested in this instructional design model for several years. We include questions about instructional design in our interviews, and require that applicants teach a class for us to observe. We have also added students to the interview team so that they can offer their insights into the process. We have found that the combination of interview and teaching observation tells us a lot about a candidate's philosophy and practices related to opportunities for student discourse in the classroom.

ATTENDANCE AND ENGAGEMENT CHANGES ACHIEVEMENT

The data from our school adds to the evidence base that suggests focusing on attendance and student engagement are important factors for closing the achievement gap. After 3 years' worth of work on this initiative, the students at Health Sciences High & Middle College now have attendance rates equal to, or better than, their suburban counterparts. For the 2009–2010 school year, our attendance rate was 95.6% compared with 90.3% just a few years before. Visitors to the school consistently comment on the student engagement and the work students complete. For example, a visitor from Indiana commented, "How did you get them to work all day? They're talking about what needs to be done and they're doing the work. Impressive."

Does this translate into student achievement changes? The data we have suggests that it does (see Table 2). For example, students in California take a high school exit exam in 10th grade,

TABLE 2
Summary of Pre- and Post-Intervention Data

<i>Subject</i>	<i>Pre-intervention</i>		<i>Post-intervention</i>			
		<i>School</i>	<i>State</i>		<i>School</i>	<i>State</i>
English	Overall	92	83	Overall	91	79
	African American	83	68	African American	94	69
	Latino/Hispanic	83	70	Latino/Hispanic	86	71
Math	Overall	89	78	Overall	88	80
	African American	50	62	African American	69	64
	Latino/Hispanic	91	70	Latino/Hispanic	88	72

which is the basis for annual yearly progress calculations for the state. The gap that used to exist, and still exists in many schools, is closing. Overall, after the intervention, 91% of the students passed the English Language Arts exam the first time they took it. The state average was 79%. The rate for African Americans was 94% (state average was 69%) and the rate for Hispanic/Latino students was 86% (state average was 71%). Overall, 88% of the students passed the math exam the first time they took it. The state average is 80%. The rate for African Americans was 69% (state average was 64%) and the rate for Hispanic/Latino students was 88% (state average 72%). The pass rates for Health Sciences High & Middle College students have increased steadily over the past 3 years and have outpaced students in the state. Of course, there is still room for growth. The achievement gap must be addressed yearly as students come to high school with different experiences and skills.

SUMMARY

As educators, we overwhelmingly support the practice of focusing on, and promoting learning for, all students by identifying and eliminating what we see as possible stumbling blocks for those not experiencing success. Continuing research attempts to pinpoint areas that are interfering with the learning possibilities for some with hopes of using this information to better design the next steps to support them (Gutiérrez & Rogoff, 2003; Lee, 2007).

Many studies have addressed questions designed to offer insights that could possibly illuminate causes and solutions to the achievement gap (e.g., Ball, 2002). Given all of the efforts that have been expended to close the gap by improving the achievement of students below grade level, and the relative inability to do so, we wondered if there were other variables that had been overlooked.

As we studied the learning profiles exhibited by involved students who came to school every day and those who did not, attendance and engagement emerged as two variables in their patterns of difference. This piqued our interest in knowing whether, by altering these factors, we might gain insights that could contribute, on a small scale at our school, to our better supporting students who were not experiencing success. We realized that if attention to these factors positively affected our students, sharing this information might contribute to closing the achievement gap on a larger national scale.

The achievement gap is real and does not seem to be closing, despite numerous efforts. Perhaps the range of initiatives designed to close the gap are missing critical ingredients. We believe

that closing the gap requires a significant amount of attention to getting students to be present—attendance—and to creating opportunities for students and their teachers to interact with one another in meaningful ways—engagement. Attention to these two factors might help the supplemental educational efforts that so many districts are pushing to have an effect, as has happened at our school.

REFERENCES

- Alim, H. S. (2005). Critical language awareness in the United States: Revisiting issues and revisiting pedagogies in a resegregated society. *Educational Researcher*, 34(7), 24–31.
- Applebee, A. N., Langer, J. A., Nystrand, M., & Gamoran, A. (2003). Discussion-based approaches to developing understanding: Classroom instruction and student performance in middle and high school English. *American Educational Research Journal*, 40, 685–730.
- Ball, A. (2002). Three decades of research on classroom life: Illuminating the classroom communicative lives of America's at-risk students. In W. Secada (Ed.), *Review of research in education* (Vol. 26, pp. 71–112). Washington, DC: American Educational Research Association.
- Chatterji, M. (2006). Reading achievement gaps, correlates, and moderators of early reading achievement: Evidence from the Early Childhood Longitudinal Study (ECLS) kindergarten to first grade sample. *Journal of Educational Psychology*, 98, 489–507.
- Eriks-Brophy, A., & Crago, M. (2003). Variation in instructional discourse features: Cultural or linguistic? Evidence from Inuit and non-Inuit teachers of Nunavik. *Anthropology and Education Quarterly*, 34, 396–419.
- Fisher, D., & Frey, N. (2008). *Better learning through structured teaching: A framework for the gradual release of responsibility*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Flanders, N. (1970). *Analyzing teacher behavior*. Reading, MA: Addison-Wesley.
- Godley, A. J., Carpenter, B. D., & Werner, C. A. (2007). "I'll speak proper slang": Language ideologies in a daily editing activity. *Reading Research Quarterly*, 42, 100–131.
- Gutierrez, K., & Rogoff, B. (2003). Cultural ways of learning: Individual traits or repertoires of practice. *Educational Researcher*, 32(5), 19–25.
- Halpern, N. (2007). The impact of attendance and student characteristics on academic achievement: Findings from an undergraduate business management module. *Journal of Further and Higher Education*, 31, 335–349.
- Heath, S. B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. New York, NY: Cambridge University Press.
- Lee, C. D. (2007). *Culture, literacy and learning: Taking bloom in the midst of the whirlwind*. New York, NY: Teachers College Press.
- Lee, J., Grigg, W., & Donahue, P. (2007). *The nation's report card: Reading 2007 (No. NCES 2007-496)*. Washington, DC: National Center for Educational Statistics; Institute of Education Sciences, U.S. Department of Education.
- Mehan, H. (1979). *Learning lessons: Social organization in the classroom*. Cambridge, MA: Harvard University Press.
- Nelson, R. F. (2005). The impact of ready environments on achievement in kindergarten. *Journal of Research in Childhood Education*, 19, 215–221.
- Pearson, P. D., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8, 317–344.
- Pewawardy, C. (2002). Learning styles of Native American/Alaska Native students. A review of the literature and implications for practice. *Journal of American Indian Education*, 41(3), 22–56.
- Roby, D. E. (2004). Research on school attendance and student achievement: A study of Ohio schools. *Educational Research Quarterly*, 28, 3–16.
- Valdés, G. (2001). *Learning and not learning in English: Latino students in American schools*. New York, NY: Teachers College Press.