

Hannah Bradt

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Mr. Speice

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Research Assessment 7

Work Cited:

Irving, Doug. "Personalized Learning: The Latest Buzz in Classroom Instruction." *RAND*

*Review*, RAND Corporation, 22 Aug. 2016,

<http://www.rand.org/blog/rand-review/2016/08/personalized-learning-the-latest-buzz-in-classroom.html>.

Tucker, Pamela D., and James H. Stronge. "Chapter 1. The Power of an Effective Teacher and

Why We Should Assess It." *The Power of an Effective Teacher and Why We Should*

*Assess It*. ASCD, n.d. Web. 27 Oct. 2016

Through personal experiences as well as knowledge gained from outside factors such as stories heard and previous research performed, I have been able to learn that the effectiveness of teachers as a whole has begun to lack. While this issue may go unnoticed by the masses, it has been increasingly recognized by students as an abundant problem. Although teachers do follow the required curriculum provided by states and school districts, there seems to be a great absence in creativity and personality in school lessons, ultimately making learning seem to be a 'chore,' rather than an enjoyable and helpful experience. Because of this ever-increasing and pressing matter, I decided to compose my seventh research assessment based on the overall effectiveness

of teachers in a classroom setting. By learning about this topic, I will be able to increase my own efficiency in a future classroom setting that I may have the opportunity to be a part of.

In the first article that I studied, I was able to learn about a new approach to learning that has been implemented into a total of 62 schools across the country. This learning approach, known as personalized learning, has proven to be an extremely effective, and is said to have improved both student's math and reading abilities by 13 and 8 percent. Personalized learning, in short, is a system in which a teacher's teaching methods are altered to specifically accommodate the needs of each student personally, rather than being directed at an entire class, ignoring the certain needs of each child. By incorporating this approach into a classroom setting, students are able to feel more successful in their educational careers, as they have access to a various amount of learning opportunities and strategies, rather than a single method of learning. As a future educator, this article was very beneficial to my understanding of both accommodating the needs of children, as well as the overall effectiveness of different teaching strategies. Although personalized learning is not presently used in the Frisco Independent School District, I hope to discuss this idea with my mentor in the future, as well as incorporate it into my own teaching. I plan to create a classroom setting based on the safety of students as they work to discover their personal creative outlets.

In the second article that I chose to study, I focused on the impacts of the effectiveness of teachers as a whole, and the effects that they may have on the students who enter their classroom. Through this source, I was able to learn many interesting details based on the long lasting effects that both high effectiveness and low effectiveness teachers have on their students. Based on research, students who were in classrooms with highly effective teachers proved to

receive much higher testing scores, placing at an average in the 96th percent, while students in classrooms with low effective teachers were recorded to score an average around the 44th percentile. I was also able to determine that ‘high effectiveness’ teachers are defined as individuals who have received a bachelor’s degree or higher, are certified and or licensed in their specific field, and can demonstrate a strong understanding of their subject. This helped to show what will be expected of me as I move forward with my plans to become an elementary music teacher, as I hope to be classified as a highly effective teacher.

Once I begin to visit my mentor, I plan to learn more about the overall effectiveness of a teacher, and the impact that this has on children in the classroom, as well as ways in which I will be able to practice these skills. I hope to begin to gather more knowledge in order to prepare myself for what is to come as I carry on with the plans which I have laid out for my future as an educator.

Schoolchildren from small-town Georgia to suburban Baltimore will encounter a new approach to learning when they head back to class this fall—one that makes them partners in their own education, not just participants. It's called personalized learning, and it has become one of the buzziest of buzzwords in American education in recent years, even though there's no single definition of what it is. A recent RAND study sought to clarify, following dozens of schools to see how educators personalized the learning in their classrooms, and what it meant for their students. The study found that students in personalized learning classrooms made greater gains in math and reading than their peers in other schools. Yet it also found barriers to fully personalized learning, from rigid state standards to time demands on teachers. “There's a lot of challenge here, a lot of things to work out,” said John Pane, the study's lead author, a senior scientist at RAND who holds the distinguished chair in education innovation. “But it looks promising.”

### **Teachers Plus Technology**

To understand what personalized learning is, start with what it is not: one teacher standing at the front of a classroom, delivering the same lesson to 30 kids at a time. In a personalized classroom, those 30 kids would follow their own pathways through the material, at their own pace, guided by their own goals and learning plans. Good teachers have always tried to meet students where they are and **engage their strengths and interests**. What's different now is the degree to which technology allows teachers to tailor lessons for every student—and make sure those students stay on task. Today's technology lets teachers tailor lessons for every student—and make sure they stay on task.

At Redwood Heights Elementary School in Oakland, Calif., for example, teachers use a reading program that presents the same lessons in different genres and at different difficulty levels, according to student interests and needs. The software can then update them on each student's progress, allowing them to spend more time with those who need it most—a break from the old teach-to-the-middle model.

“When you can teach to students where they're really at, you're challenging them but not frustrating them,” said Bruce Stoffmacher, a policy analyst and former teacher whose two sons now attend Redwood Heights. “That's where learning can really occur.”

### **Promising Findings**

RAND's study was the largest and most rigorous attempt yet to test such a personalized approach to education. It followed 62 schools—most of them urban charter schools serving low-income students—as they implemented personalized learning programs between 2013 and 2015.

All of the schools had received funding from the Bill & Melinda Gates Foundation, which has invested tens of millions of dollars in personalized programs, and brought in RAND to measure their impact.

The results provide an unprecedented look at how personalized programs can work—and how well. The initial findings “would be remarkable, and very exciting” if they hold up in future research. Students in most of the schools made significant gains in both math and reading, compared with students in similar schools who were not part of the personalized programs.

Those gains were especially apparent in the earliest grades: Elementary school students moved up 13 percentile points on standardized tests in math, on average, and 8 points in reading.

The schools were generally testing below national averages in math and reading at the start of the study. Two years later, they had caught up—and even moved ahead.

Those findings “would be remarkable, and very exciting” if they continue to hold up in future research, Pane said —especially more rigorous, randomized experiments. “At this point, we’re saying there’s promise here,” he added. “We still need to do more to understand the true effect.”

### **Steps, Not Leaps**

Ryan Imbriale, the executive director of innovative learning in Baltimore County, Md., recently sat in on a second-grade classroom to see personalized learning in action. The district is implementing a personalized approach in all of its schools that it calls **STAT, for Students and Teachers Accessing Tomorrow.**

Students in one area were reading out loud into a microphone, he said, while others listened to the same story on headphones, and still others hunched over pencils and paper, practicing their writing. The teacher sat in a small circle of maybe half a dozen desks, working one on one with students who needed a little more help with their reading.

“There’s better purposeful conversation that’s happening now,” Imbriale said. “It felt very **personal** for the kids in the room. They were doing activities as second-graders that allowed them to demonstrate mastery.” The most successful schools in RAND’s study shared some of those characteristics. They were **flexible in how they used classroom space and time**, allowing students more freedom to work in groups or on individual projects. They made **better use of data** to group students according to their individual needs and progress, and they **worked with students to map out their goals.** Most of the schools were moving toward greater personalization by steps, not

leaps. Teachers continued to align their overall lesson plans with state and district curriculum standards, for example. Few had implemented more radical visions of personalized learning, such as competency-based progression, in which students earn credit whenever they can demonstrate mastery of a subject, not just at the end of the year. Teachers and school administrators cited the demands of standardized testing and state seat-time requirements as barriers to further personalization. More than half of the teachers RAND surveyed also cited the time it took to prepare individualized lesson plans.

### **Rethinking “Achievement”**

Researchers have been taking a closer look at a subset of mostly newer schools in the study.

Those schools have run into more constraints, Pane said; their results were still positive, but the effects were not as large as in the bigger sample that included older schools.

That study has led RAND to a better understanding of the school features that seem to help make learning personalized: a clear understanding of the needs and goals of each student; instruction tailored to meet those needs and goals; and frequent and constructive dialogue between teachers, parents, and the students themselves. Technology can enable that kind of learning, and help teachers manage the complexities of it—but it cannot substitute for a good teacher.

It's the difference, Tony Townsend likes to say, between a lesson and a learning experience. He's the principal at Locust Grove Middle School in Henry County, Ga., in the outer orbit of Atlanta—a public school that has made personalized learning a part of every class.

“The students are not just sitting back and waiting for the teacher to direct their education. They can take control of their own learning.”

*Tony Townsend, principal of Locust Grove Middle School*

Its students spend much of their time not in lectures, but in labs—**applying knowledge**, district officials say, **not just acquiring it**. Each has a learner profile that says where they are and where they need to go—and some flexibility to choose how they get there. One student last year **earned credit for a music class by following his interest in composing and writing several pieces of music, including a national anthem for an imaginary country.**

“We’re used to school looking a certain way,” Townsend said. “This has been a huge paradigm shift. The students are not just sitting back and waiting for the teacher to direct their education. They can take control of their own learning.”

That’s the purpose and the promise of personalized learning: “You’re never going to have two kids at the same place at the same time,” Townsend says, “ever.”

— Doug Irving

### **Impact of Teacher Effectiveness on Student Achievement**

The work of Bill Sanders, formerly at the University of Tennessee's Value-Added Research and Assessment Center, has been pivotal in reasserting the importance of the individual teacher on student learning. One aspect of his research has been the additive or cumulative effect of teacher effectiveness on student achievement. Over a multi-year period, Sanders focused on what happened to students whose teachers produced high achievement versus those whose teachers produced low achievement results. He discovered that when children, **beginning in 3rd grade,**



were placed with three high-performing teachers in a row, they scored on average at the 96th percentile on Tennessee's statewide mathematics assessment at the end of 5th grade. When children with comparable achievement histories starting in 3rd grade were placed with three low-performing teachers in a row, their average score on the same mathematics assessment was at the 44th percentile, an enormous 52-percentile point difference for children who presumably had comparable abilities and skills. Elaborating on this body of research, Dr. Sanders and colleagues reported the following:

. . . the results of this study well document that the most important factor affecting student learning is the teacher. In addition, the results show wide variation in effectiveness among teachers. The immediate and clear implication of this finding is that seemingly more can be done to improve education by improving the effectiveness of teachers than by any other single factor. Effective teachers appear to be effective with students of all achievement levels, regardless of the level of heterogeneity in their classrooms.<sup>6</sup>

Further analysis of the Tennessee data indicated that the effects on achievement of both strong and weak teachers persisted over three years: subsequent achievement was enhanced or limited by the experiences in the classrooms of strong or weak teachers, respectively.<sup>7</sup> In other words, learning gains realized by students during a year in the classroom of an effective teacher were sustained over later years and were compounded by additional years with effective teachers.

Conversely, depressed achievement results resisted improvement even after a student was placed with an effective teacher, and the negative impact was discernible statistically for approximately three subsequent years. Given results like these, it's no wonder that the researchers found that “a major conclusion is that teachers make a difference.”<sup>8</sup>

In a comparable study by researchers in Dallas, Texas, similar results were found in both math and reading during the early grades.<sup>9</sup> When 1st grade students were fortunate enough to be placed with three high-performing teachers in a row, their average performance on the math section of the Iowa Tests of Basic Skills increased from the 63rd percentile to the 87th, in

contrast to their peers with similar scores whose performance decreased from the 58th percentile to the 40th, a percentile difference of 42 points. A similar analysis in reading found a percentile difference of 44 percentile points. The studies in Tennessee and Texas produced strikingly similar findings: Highly effective teachers are able to produce much greater gains in student achievement than their less effective counterparts.

While the numbers help to summarize the cumulative academic effects of less effective teachers, we can only imagine the sense of failure and hopelessness that these children and their parents experienced during the years in these classrooms. Undoubtedly, the children wondered what was wrong with them when, in reality, it was the quality of their instruction. A common yet misguided bit of folk wisdom has been that adversity, in the guise of an ineffective teacher, builds character and that a student can catch up the following year. The research indicates otherwise.

Based on the findings from the Dallas Public Schools' Accountability System, the negative effects of a poor-performing teacher on student achievement persist through three years of high-performing teachers.<sup>10</sup> The good news is that if students have a high-performing teacher one year, they will enjoy the advantage of that good teaching in future years. Conversely, if students have a low-performing teacher, they simply will not outgrow the negative effects of lost learning opportunities for years to come. Further exacerbating the negative effects of poor-performing teachers, the Dallas research shows that “lower-achieving students are more likely to be put with lower effectiveness teachers . . . . Thus, the negative effects of less effective teachers are being visited on students who probably need the most help.”<sup>11</sup>

Summarizing the findings from studies of the Dallas and Tennessee Value-Added Assessment Systems, Mendro states:

Research . . . has demonstrated the effects of teachers on student achievement. They [the researchers] show that there are large additional components in the longitudinal effects of teachers, that these effects are much larger than expected, and that the least effective teachers have a long-term influence on student achievement that is not fully remediated for up to three years later.<sup>12</sup>

In straightforward terms, these residual effects studies make it clear that not only does teacher *quality matter* when it comes to how much students learn, but also that, for better or worse, a *teacher's effectiveness stays with students for years to come*.

### **Highly Qualified Versus Highly Effective**

Given the growing body of knowledge about the impact of effective teachers on children, it seems that educational policy is beginning to acknowledge the importance of classroom teachers in addition to curriculum standards and assessments. A case in point is the federal No Child Left Behind Act of 2001, which has introduced both the concepts of “adequate yearly progress,” based on annual testing, and “highly qualified teacher,” based on teacher credentials, as strategies to improve U.S. education. According to the legislation, “highly qualified” teachers are defined as those who hold at least a bachelor's degree, are fully licensed or certified by the state in the subjects they teach, and can demonstrate competence in the subjects they teach.

While licensure or certification is a significant indicator of teacher quality, these factors alone are insufficient for teacher effectiveness. As discussed earlier, teacher effectiveness is characterized by a far more complex set of qualities than one's professional preparation. It includes dispositions and an array of planning, organizational, instructional, and assessment skills. Effective teachers are able to envision instructional goals for their students, then draw upon their knowledge and training to help students achieve success. A “highly qualified” teacher is certainly a good starting point, but most of us would want our child to have a highly effective teacher whose teaching effort yields high rates of student learning.