



Personalized Education: The Key to Academic Success?

In America, the education system is far from perfect. According to The Nation's Report Card [1], only 25% of students performed at or above proficient level in math on the most recent assessment. Another report says, "only about a third of U.S. high school seniors are prepared for college-level coursework in math and reading" [2]. Therefore, it's clear that change is needed.

There are many ways education can change for the better and personalized education appears to be one of the most powerful. Tailoring each student's education to meet their unique needs and interests can improve achievement drastically.

But, what is personalized education exactly? Is there proof that it can improve learning outcomes? And, perhaps most importantly, how can it be implemented? This article will explore all of these questions, offering a deeper understanding of this concept and how it might play a role in the future of education.

History of Personalized Education

In its latest surge of popularity, the concept of personalized education may appear to be new. However, it is hardly a recent development in educational theory.

Personalized education is a multifaceted concept that means much more than helping students learn at their own pace. In addition, students have influence over their learning paths and can help choose the areas of study and direction they take. Furthermore, there's flexibility in the way that student mastery is assessed. Feedback and recordkeeping of student profiles are other important elements of personalized education.

To build on our understanding of the concept, let's look at the history of personalized education. Here are some of the foundations of personalized education and their influences:

John Dewey

John Dewey, an important educational thinker [3], wrote *Democracy and Education* in 1917. In this book and his other work, Dewey emphasized the importance of student investment in learning. He thought learning should be relevant to students and offer them "instruments of effective self-direction." In this way, the child was the center of the classroom, rather than the teacher.

Maria Montessori

Around the same time as Dewey was writing his book, across the ocean, in Italy, Maria Montessori started a revolution in education. Among her

principal tenets was the idea to “follow the child”. This concept promoted personalized education driven by the interests, needs and ability of the child.

In a Montessori classroom, it’s the teacher’s job to provide relevant activities and lessons for all of the children. Rather than requiring all children to do certain activities at a certain time, children are free to choose what they want to do. Guidance and support is offered from the teachers who oversee progress. This way, children move at their own pace, advancing in different subject areas as they are ready and interested.

Both Montessori and Dewey also encouraged teaching practical skills such as cleaning, dressing and cooking to children. They believed these activities were just as important to development as more academic endeavors.

Zone of Proximal Development

This concept, developed by Lev Vygotsky and published in 1978 by Harvard University Press, helped set a new goal for teachers. Each student should work on activities and tasks that are slightly beyond their level of competence, also known as the zone of proximal development [4]. This made individualized learning a goal in terms of level of difficulty.

Today, a variety of teachers, districts and methods implement varying levels of personalized education. While some use technology, others make use of tutoring and more one-on-one instruction time in order to implement personalized education. But, as will be discussed further on, success patterns are already visible.

In the last few years, personalized education has piqued the interest of educators, parents and researchers thanks to its promises and success thus far. Let’s take a look at the research.

What Do the Studies Say?

This area of education is becoming ever more popular for researchers. While there are some examples of research and studies on the effectiveness of personalization, we are still learning about this type of education and how it works. That said, it's very interesting to see what research has already been done. Take a look at what's been discovered so far:

Benjamin Bloom

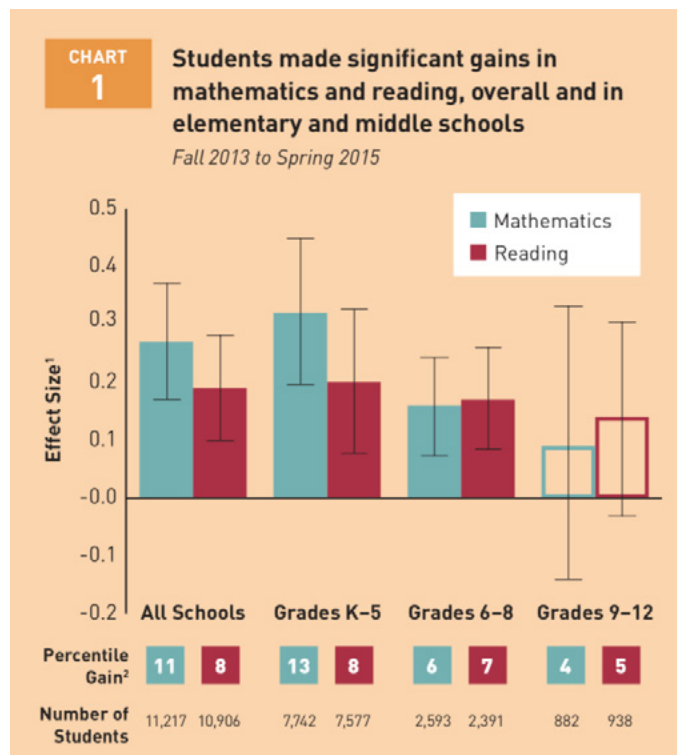
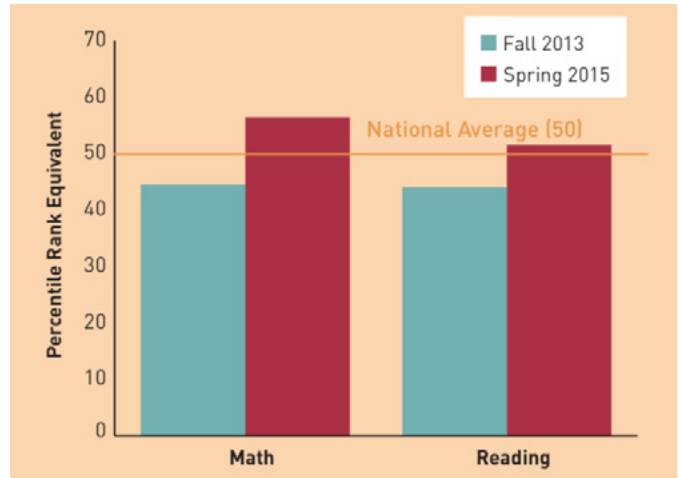
One of the earliest studies on personalized learning was published [5] in 1984 by Benjamin Bloom in the journal *Educational Researcher*. According to the findings, the average tutored (i.e. taught one-to-one) student performed better than 98 percent of the students in the control group, a conventional classroom. But the cost of personalized learning was, and still is, too high. So, Bloom challenged researchers and teachers to explore methods of group instruction that would achieve outcomes as effective as one-to-one tutoring. In a comprehensive study, Bloom's scientific team investigated a variety of methodologies including the feedback corrective method within a conventional classroom, the use of small student study groups, and more.

RAND Corporation

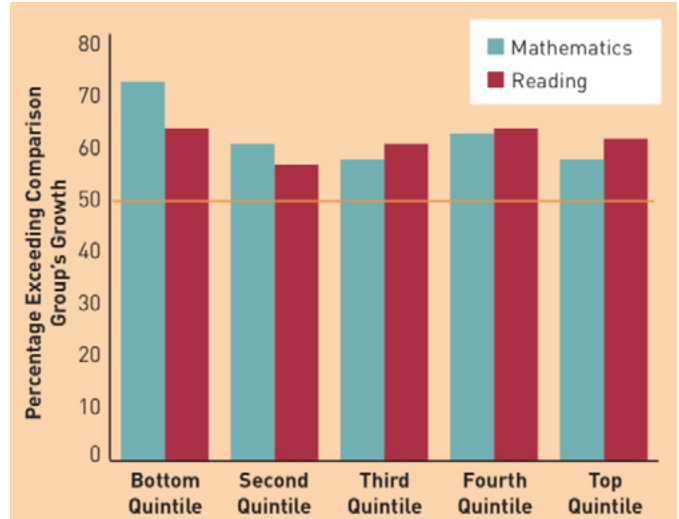
In 2015, the RAND Corporation published a study [6] titled *Informing Progress: Insights on Personalized Learning Implementation and Effects*. Data was collected from the Next Generation Learning Challenges Breakthrough Schools Models program. In the end, evidence suggested that, although varying degrees of personalized education was implemented in the schools, the greater the implementation of personalized learning, more positive effects on achievement were found. However, the authors caution that it's important to continue researching in this area.

Specifically, this study showed that:

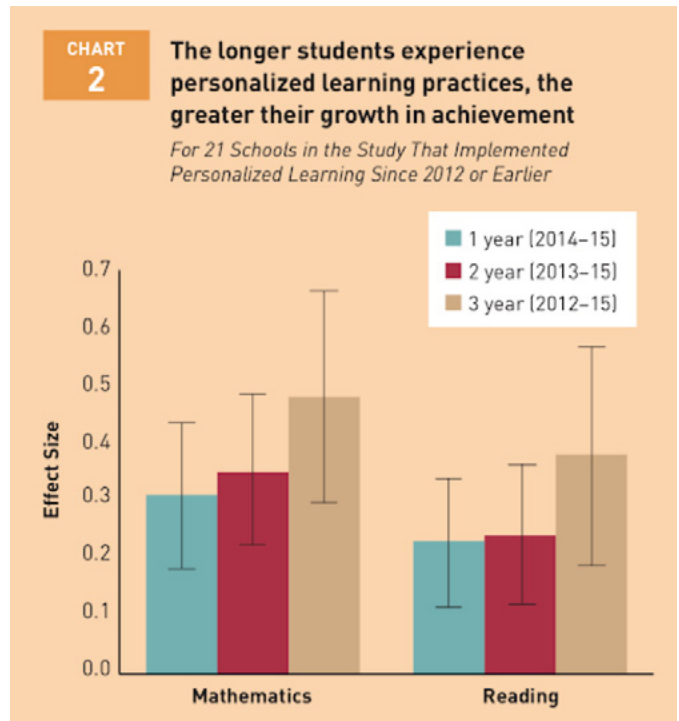
- After two years of personalized learning, student achievement on MAP math and reading assessments jumped above the national median.
- The biggest growth of achievements takes place in elementary school. Personalized learning implementation in middle and high school might offer limited growth as you need a solid foundation that is rooted in primary classes.



- In mathematics, students with the lowest baseline scores had the greatest amount of growth when compared to other students.



- Growth continued to accumulate in the third year that schools implemented personalized learning practices.



Schools that have achieved success by personalizing education all share some things in common. Typically, they make use of small group instruction and many schools also employ technology. For example, teachers might break up students into groups and have them work in different centers while instructing one small group at a time. Other teachers have students work independently using high quality instructional technology, like Happy Numbers. These technologies not only let students work at their own pace, they also provide data that allows teachers to track student progress. This allows teachers to give excellent personalized support.

Change is hard for teachers and institutions alike. But, to serve students best, it's necessary to change teaching practices to reflect what has achieved the best outcomes in studies. Student outcomes can improve greatly if we are able to offer more personalized education. So, start with baby steps like introducing small group instruction in one subject. Slowly, as you and your students adjust, you can extend it to other areas. You can also introduce technology and apps that allow students work through curriculum at their own pace.

Ready to get started? Happy Numbers would love to support you with high quality personalized math instruction you can use in your classroom. We are proud partners in many classrooms already, and would be thrilled to partner with you, too.

References

- [1] The Nation's Report Card www.nationsreportcard.gov
- [2] [High School Seniors Aren't College-Ready](#) by Lauren Camera
- [3] John Dewey at www.pbs.org/onlyateacher/john.html
- [4] Zone of proximal development at www.newclassrooms.org
- [5] [The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring](#), Benjamin S. Bloom, published by Educational Researcher in 1984
- [6] Pane, John F., Elizabeth D. Steiner, Matthew D. Baird, Laura S. Hamilton, and Joseph D. Pane, *Informing Progress: Insights on Personalized Learning Implementation and Effects*. Santa Monica, CA: RAND Corporation, 2017. https://www.rand.org/pubs/research_reports/RR2042.html.