CONTINUED PROGRESS PROMISING EVIDENCE ON PERSONALIZED LEARNING

A new report commissioned by the Bill & Melinda Gates Foundation has found that students in schools using personalized learning strategies made greater academic progress, over the course of two years, than a comparison group of students with similar academic performance and from schools with similar demographic profiles.

According to RAND Corporation researchers in "Continued Progress: Promising Evidence on Personalized Learning," the students in the study made gains in math and English language arts that were significantly greater than their peers in other schools. Importantly, average performance of students in the study's schools were below the national averages for their starting grade, and above the national averages for their ending grade two years later. Moreover, the gains made by the personalized learning schools were relatively large compared to gains measured in studies of other educational interventions. A large proportion of students with lower starting achievement levels experienced greater growth rates than their peers, particularly in math. A majority of the 62 mostly public charter schools in the sample had statistically positive results. Although it is not possible to separate the effects of personalized learning from other school effects, the researchers consider the results "largely positive and promising."

While the concept of personalized learning has been around for some time, advances in technology and digital content have placed personalized learning within reach for an increasing number of schools. "Continued Progress" is the second report from the study, which examines student achievement, school design, and student and teacher perceptions of schools using personalized learning strategies through the analysis of interviews, surveys, site visits, and achievement data. The findings in this latest report are similar to those reported previously, but are based on a much larger sample of approximately 11,000 students. Although the field of education does not yet share one common definition for personalized learning, leading practitioners in the field generally look for the following three elements in this instructional approach:

1. Systems that deepen and accelerate student learning by tailoring instruction to an individual's needs, skills and interests



Students made significant gains in mathematics and reading, overall and in elementary and middle schools *Fall 2013 to Spring 2015*

¹ Solid bars indicate statistical significance (p < 0.05) after adjustment for multiple hypothesis tests. Outlined bars are not significant.

² Percentile gains translate the treatment effect sizes into the amount of improvement experienced by the median student.

Note: Effect size is a standard way researchers measure the impact of an educational strategy.

- 2. Approaches that offer a variety of learning experiences that prepare students for college and careers
- 3. Teachers who play an integral role by managing the learning environment, leading instruction and guiding students to take ownership of their learning.

In this study, the researchers looked at how a subset of 32 schools implemented five specific strategies of personalized learning that included learner profiles, personal learning paths, competency-based progression, flexible learning environments, and a focus on college and career readiness and found that

schools adopted these components to varying degrees. The extension of existing practices such as providing students with more one-on-one support was more common while practices that are more challenging to implement, such as competency-based progression, were less common.

Learner profiles encompass using data including academic tests, projects, and student behavior and aspirations to gauge students' progress and help them develop and refine learning goals. All of the schools in the sample used data from different sources to understand student progress, half developed personalized goals for students, and two thirds provided data to students and discussed it with them.

Personal learning paths involve providing a variety of instructional approaches and supports to allow flexibility in student paths through content. All schools provided time for teachers to give students individual support. Three quarters of the schools used a variety of instructional formats. Fewer schools offered opportunities for students to learn outside of school and these opportunities were not substantially different from those offered in traditional environments. Students' ability to choose a path or project varied by age, course, and teacher. Older students tended to experience more choice than younger ones.

In competency-based learning models, students work with content that is appropriate to their learning level, and they are supported as they work at their own pace, taking the time they need to master the material. Fewer schools implemented this personalized learning strategy than other strategies which was due in part to the need for teachers to prioritize content specified by grade-level standards.

Flexible learning environments describe arranging resources such as time, staff, and physical space to respond to student needs, adjusting to what teachers glean from data. Whether it's the grouping of desks or the scheduling of classes, the environment is designed to support personalization. It also integrates technology. About three quarters of administrators said that learning time at their schools was flexible and responsive to student needs. Most schools had extended school days or school years, and the extra time was used primarily for additional instruction or to provide individualized support. Educators at many of the schools are thinking flexibly about how staff are used for instruction and student support.

College and career readiness is preparation for postsecondary life, including non-academic competencies such as resilience, and skills such as the ability to plan and understand college requirements. All the schools were incorporating ways to develop these skills into the curriculum. They commonly did this through advisory time and cooperative projects. Administrators at all grade levels said they were working to develop students' knowledge of postsecondary options.

No single component of personalized learning distinguished the schools with the strongest achievement results from others in the sample; however, the most successful schools were the only ones reporting implementation of all three of the following: grouping students according to data in ways that respond to their needs, providing data to students and using it to discuss their learning goals, and providing learning spaces that supported the personalized learning model. While this analysis is not conclusive, it suggests that these components may be particularly important.

Finally, there were a number of cross-cutting factors around professional development, staffing, and support to note. First, teachers across schools expressed positive opinions about support from colleagues and administrators. Second, a majority of administrators cited staffing as a challenge: high teacher turnover was a common problem. Finally, teachers were less likely to identify obstacles to technology than effective implementation of personalization instruction overall.

The RAND Corporation will produce a more comprehensive report with additional details in 2016.