STUDENT ACHIEVEMENT PARTNERS

There is promise in personalized learning, yet much of it is as yet unstudied and unproven. While personalized learning has been around for millennia, scant research on its efficacy exists in literacy. That's basic efficacy—defined as whether the treatment moves learning attainment at all compared to other conditions. In many studies, the variety of alternative treatments and conditions present makes it challenging to determine to what degree the personalized learning treatment was the major contributor to improved learning. It is our position that the field needs a major infusion of support for research and specific attention to the variation in outcomes across racial, socio-economic, and language demographics. Only then we will have solid evidence of the *effectiveness* of personalization approaches in schools and classrooms, and understand the impact of specific tools on students and their learning.

Significant additional research is needed on individual products or approaches in order to build a foundation for understanding what works to support student acceleration in literacy. Specifically, research is needed into the following four areas:

1. STUDENT EXPERIENCE

User experience studies and other qualitative studies are needed to better understand the positive and negative experiences of students with regard to personalized learning and how those experiences vary by student racial, social, and academic background. Additionally, studies are needed to better understand the features and impact of approaches that draw specifically on student motivation to accelerate literacy. These studies should pay careful attention to the extent to which outcomes vary based on student demographics and/or student starting points. This research needs to be published in academic journals and made widely available.

TOPIC	POTENTIAL RESEARCH QUESTIONS TO EXPLORE
STUDENT EXPERIENCE	• How do students experience various personalized learning approaches? • What is the relationship between a student's desire to participate in personalized learning and a student's experience and/or outcomes? • Given the likely variance in student experience—even with one product—what can we learn about how to build an approach that meets the varied needs and preferences of students?
STUDENT ENGAGEMENT	• Can personalizing literacy help support student engagement and sense of belonging at key transition points, particularly the most stressful (i.e., 8th to 9th grade)?
STUDENT MOTIVATION	• How do personalized learning tools or approaches impact student motivation and growth on literacy accelerators?

2. EFFECTIVENESS

Significantly more research is needed into the effectiveness of specific personalized learning products and approaches and how their effectiveness varies across students (by their academic and sociodemographic backgrounds) and contexts (schools, classrooms, teachers) in order to build our collective understanding of what approaches work best to accelerate literacy. This report uncovered scant evidence of the efficacy of personalized learning approaches in literacy.

Schools and school systems will need a coherent and well-rounded approach to literacy and will likely need to pull from multiple products and approaches to achieve this goal. It is critical to understand how various products and approaches work together and how effective they are in combination, as well as separately.

Finally, there are good opportunities to fund and study efforts to disband tracking through the equitable and personalized use of high-quality instructional materials.

TOPIC	POTENTIAL RESEARCH QUESTIONS TO EXPLORE
EFFICACY	• Does the hypothesis that personalizing the literacy accelerators will further boost student acceleration hold up? • Do specific personalized approaches pair well with specific accelerators? • What types[1] of personalization drive the strongest results for each literacy accelerator? • How does the student experience with products/approaches connect to the efficacy of that approach?
INTEGRATION OF PRODUCTS/ APPROACHES	• Are there combinations of various approaches and products that lead to intellectual richness and better student growth? • Are there particular personalized learning approaches or products that pair well with specific curricula? • What professional learning and support do teachers need to be able to effectively and equitably employ personalized instructional strategies and products?
FURTHERING EQUITY	• Can personalized use of high-quality instructional materials accelerate student literacy while dismantling the practice of tracking by ability?

3. CONTINUED DISCOVERY

There may be significant and relevant research conducted by product developers and/or technology companies into the effectiveness and/or student experience with personalized learning approaches. Supporting efforts to identify and bring such research into the public eye for stakeholders to know would be worthwhile.

TOPIC	POTENTIAL RESEARCH QUESTIONS TO EXPLORE
EXISTING RESEARCH	• What relevant efficacy research is currently held by private organizations such as content developers and/or technology companies?

[1] We find the Substitution, Augmentation, Modification, Redefinition (SAMR) model developed by Dr. Ruben Puentedura a worthwhile way to categorize types of educational technology approaches and products. Another way to categorize types of personalized learning is by the kind of practice(s) the product or approach employs (i.e., culturally relevant pedagogy, project-based learning, real-world problem solving, learner profiles, data-driven instruction, etc.).

4. BIAS IN BOTH TECH-ENABLED PROGRAMS AND HUMAN IMPLEMENTATION

We must understand the impact educator bias has on the design *and implementation* of both tech-enabled and human-enabled personalized learning approaches and what could work to mitigate these biases.

TOPIC	POTENTIAL RESEARCH QUESTIONS TO EXPLORE
BIAS	· What can we discover about the racial, gender and/or language biases built into personalized learning algorithms? What can be done to create greater equity within these algorithms? · How do the racial, linguistic, class or other identity biases of teachers impact the student experience and efficacy of personalized learning approaches or products? · What interventions are most promising to reduce the impact of these human biases?

5. RESEARCHER DIVERSITY

We conducted an independent analysis of the racial and gender diversity of the researchers whose work we have included this synthesis. These studies were conducted overwhelmingly by White men. There is a clear need to expand the field to include researchers with diverse identities and backgrounds, particularly to invite in researchers who better represent the diversity of students served in American classrooms. Doing so would enrich the educational research field by offering a greater diversity of perspectives.

TOPIC	POTENTIAL RESEARCH QUESTIONS TO EXPLORE
DIVERSITY	· How can the pool of researchers in literacy and personalization become more diverse so that new perspectives are available? · Are there paradigms that can better prioritize equity as a goal of research?