Blended & Personalized Learning: 10 Key Findings From BetterLesson's Master Teacher Project

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In 2014, BetterLesson partnered with The Learning Accelerator (TLA) to join a small but powerful cohort of human capital organizations committed "to transform K-12 education by accelerating the implementation of high-quality blended learning in school districts across the US. This white paper shares the 10 key findings from this exciting project.

About BetterLesson

BetterLesson's mission is to empower schools and districts to develop and retain world-class teachers by providing the right kind of support to teachers at the right time. Since our founding in 2009 as a platform for teachers to share their lesson plans, we have been steadfastly committed to "sharing what works." With over a million teacher-generated resources on our "Community" site and 20,000 freely available additional resources created by Master Teachers in Science, Math, ELA, and Blended Learning, BetterLesson has become one of the most reliable sources of high-quality Common Core and blended learning resources for the 300,000-400,000 teachers who use our resources each month. BetterLesson's focus over the last few school years has been to develop, launch, and refine PersonalizedPD, an innovative professional development platform that supports hundreds of K-12 teachers across the country to design and implement personalized learning strategies that solve their most pressing teaching challenges.

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Summary of Key Findings

1. Implementing blended learning can be a strategy for schools, districts, and networks to sustain and retain talented, experienced teachers by making teaching more manageable, effective, and joyful. Digital assessments and content make it possible for caring teachers to be more responsive to individual students' needs without having to do an unsustainable amount of planning.
2. Blended teachers face challenges that are unique and challenges that are common to all teachers; therefore, they require ongoing personalized supports such as virtual coaching and virtual affinity-based PLCs.
3. Very few effective blended learning teachers implement "pure" blended models; teacher-driven model evolution is a necessary and good part of the process of learning what works best for students in a given context.
4. Certain traditional blended learning models are developmentally appropriate entry points for teachers and students at specific school levels.
5. There are three equally valid development paths to which schools and districts that are just starting to explore blended and personalized learning should pay close attention:
    a. committing to a whole-school blended learning model
    b. committing to a content-driven blended approach in a part of a school
    c. supporting individual teachers and teams of teachers to design structured blended learning experiments
6. All three paths require school, district, and network leadership to have clarity at the outset about the problems they are trying to solve through blended learning.
7. Effectively implemented blended learning strategies can have a transformative impact on student engagement, ownership, growth, and achievement, especially for students who experience shame about where they are in their development.
8. All students, especially older students, need ongoing and explicit instruction about how to learn differently in a blended classroom.
9. Administrators who are the most supportive of blended teachers encourage risk-taking, ensure that teachers have the resources they need, and authorize teachers to evolve the school's blended learning model.
10. Creative blended teachers who are given a modest budget can devote more of their time and energy to planning excellent experiences for their students and less time scrounging and hacking for free resources, grants, and workarounds.

Introduction

The world is moving rapidly towards models of learning for both adults and children that are both "blended"--strategically and skillfully integrating effective digital and human-to-human learning strategies--and highly personalized for each learner. The proliferation of affordable (and, in many cases, free) new educational software, apps, and hardware has made real personalization possible for millions of K-12 students. The promise of helping all students develop the skills they need to be successful in the 21st century has never felt more achievable. At the same time, almost none of the 3.5 million teachers in the United States were educated in a personalized learning environment, and a very small percentage of teachers had the opportunity to be trained in blended and personalized learning strategies in their pre-service preparation. Therefore, there is a significant urgency for teachers to develop and practice the skills, habits, and dispositions that will allow them to become the teachers their students need them to be.

As an organization that pays careful attention to promising trends in K-12 education, we could see early on that "blended learning"--a broad term for a variety of educational models and approaches in which high-quality human-to-human teaching strategies are strategically integrated with technology-enabled learning--held the potential to revolutionize the way that teachers teach and students learn. At the same time, we recognized that there were very few accessible and publicly visible models for what effective blended teaching strategies actually looked like. In 2014, BetterLesson partnered with The Learning Accelerator (TLA) to join a small but powerful cohort of human capital organizations committed to advancing TLA's mission "to transform K-12 education by accelerating the implementation of high-quality blended learning in school districts across America." BetterLesson was awarded a substantial grant from TLA to identify a small cohort of effective blended learning teachers, codify their practice, and showcase their teaching strategies as we had done successfully in our earlier Master Teacher Projects in Math, ELA, and Science.

Unlike Master Teacher Projects we had previously hosted, which highlighted Master Teachers' lesson plans and organized project content according to the Common Core and Next Generation Science Standards, the [Blended Master Teacher Project](#) was small by design and focused on demonstrating what effective blended learning teachers do and why they do it.

The content produced through this project is unique, both in its comprehensiveness and its level of detail about specific blended teaching strategies. Nearly 19,000 different teachers have viewed the site since its launch in February 2015. There have been 93,000 page views of the content on the UI. Our blended strategy videos, perhaps the project's most important contribution to the field so far, have been viewed nearly 27,000 times in that same period. Not only have the strategy videos been viewed thousands of times, but our analytics data suggests that teachers who use our blended resources spend more time interacting with blended strategies (an average of over 3 minutes per strategy) than with any other content in BetterLesson's vast catalogue of teacher resources.

The work of our Blended Master Teachers has been widely publicized by national thought leadership organizations such as EdSurge, EdWeek, The Hechinger Report, and The Clayton Christensen Institute. The project's content has also been incorporated into the resources and tools of many prominent

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national blended and personalized learning organizations, including New Schools for New Orleans, RELAY Graduate School of Education, The Friday Institute, The Highlander Institute, Next Generation Learning Challenges, The Rogers Family Foundation, The Clayton Christensen Institute Blended Learning Universe, and Jobs for the Future's Students at the Center Hub. The BetterLesson Team was invited to share the content of the project at various national conferences--including iNACOL, New Schools Venture Fund's Summit, ISTE, and The Highlander Institute's Blended Learning Conference--where it has been warmly received and praised as an important body of new resources.

We have learned a great deal from designing and hosting the Blended Master Teacher Project, coming as it did at a time when we are refining and rolling out PersonalizedPD, our innovative personalized learning platform for teachers. We are convinced now more than ever that all learning is inexorably headed in the direction of being more self-paced, technologically enabled, and mastery-driven. Traditional models of teaching and learning are rapidly giving way to new and exciting approaches like the strategies that are featured in this project. We are grateful for our partnership with TLA and proud of the accomplishments of our Blended Master Teachers and our Blended Learning Team, and we are excited to share our findings with the general public.

We invite you to share feedback about this paper and our Blended Master Teacher Project via Twitter (@JLBetterLesson and @BetterLesson) or email: jeff.liberty@betterlesson.com. Thanks for reading!

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Section 1: Project Design

Application and Selection Processes

After only a few months of recruitment in the spring of 2014, BetterLesson had received nearly 200 applications for the Blended Master Teacher Project. Given how nascent the practices of blended and personalized learning are in the field of contemporary education, the high volume of applications and the talent of the applicant pool surprised us. Most applicants came from one of three teaching contexts--**fully blended school models; schools that had adopted a blended learning approach in a particular content area; and schools in which the teacher applicants were one of (if not the only) blended learning pioneers**. The candidates were diverse in terms of geography, racial and cultural identities, and blended model types.

After an intensive recruitment and screening process that spanned three months, we ultimately assembled a cohort of 11 Blended Master Teachers. The final cohort consisted of charter school teachers and traditional public school teachers. There were teachers from every educational level except kindergarten and all core content areas. Teachers who were blended pioneers in their schools were chosen alongside those who had been in fully blended models and others who were part of a content-specific blended model. There was good racial and cultural diversity represented in the final cohort as well as a ratio of men-to-women that was proportional to the overall candidate pool (i.e., slightly more male-heavy).

The final cohort represented the diversity of the applicant pool in almost every way except that **10 of the 11 teachers who were chosen taught in urban schools**. One teacher--Jessica Anderson, the 2016 Montana Teacher of the Year--hails from a rural town in Montana with a population of approximately 3,000 inhabitants. Although our team did not set out to assemble an urban blended teaching cohort per se, even in the earliest days of the project we wondered about the degree to which opportunities for and support of educational innovations like blended learning might be tied in some way to the urgency that often accompanies teaching students living in poverty. We would have assembled a cohort that included teachers who served suburban students or more affluent students if they had been the strongest candidates in the applicant pool. Ultimately, however, the teachers who demonstrated the most effective blended teaching and the teachers with the most interesting and articulate insights about their blended practice served students from lower socio-economic backgrounds. We decided we would continue to explore the connection between poverty and blended learning innovation as we launched the project in earnest.

> *"I am most proud of the fact that Holmes, a perennial low performing school, has a positive example online for teachers everywhere to see."*
> *— Daniel Guerrero, Holmes Elementary School*

Project Requirements

Our ultimate goal was to share the effective practices of our selected Master Teachers, and we realized that we could not accurately and powerfully convey the elements of each Blended Master Teacher's strategies through the lens of teachers' lesson plans as we had in previous Master Teacher Projects. While our Master Teachers' lesson plans and related resources have been essential to hundreds of thousands of teachers in the early days of Common Core and NGSS implementation, our sense was that what teachers, administrators, parents, and policy makers most needed at this moment was a clear illustration of what effective blended teachers do and why they do it. With that in mind, we created an organizational framework for the project that was elastic enough to apply to the diverse teachers in the cohort and plainspoken enough in its nomenclature to be accessible to visitors to our site from a variety of backgrounds and levels of blended experience.

> *"I was hoping to be a part of putting together something that made a lasting impact on the state of blended learning and education as a whole, and I definitely feel like that has been accomplished."*
>
> — *Jeff Astor, Cindy and Simon Technology Academy High School*

From our interviews with candidates for the project, we learned that all effective blended teachers do three main things consistently and equally well:

- They **design** all aspects of their students' experience intentionally to maximize engagement and personalization.
- They **deliver** high quality instruction and assessment in a variety modalities with an eye towards meeting the needs of all of their students.
- They **develop** their skills and iterate on their models continuously.

These three areas of effective blended practice became the "headlines" of our initial Blended Learning Taxonomy, which our Master Teachers helped to vet and shape throughout the project.

As with previous Master Teacher Projects, we required all of the Blended Master Teachers to document their practice in a very rigorous way, including agreeing to participate in five professionally shot high-definition filmings of their classrooms in action and numerous filmed interviews with themselves and their students reflecting on specific areas of their practice. In addition, all cohort members had to document, curate, and share artifacts that would help visitors to the project's website understand aspects of their practice. Finally, each Blended Master Teacher agreed to participate in the ongoing gatherings of the cohort, all of which were designed to make participation in the project clearer and to make project participants better at what they do by engaging in authentic professional learning with the BetterLesson Blended Team and their project peers.

Section 2: Insights

As a consequence of our deep relationships with each of our Master Teachers and our careful documentation of their practice as well as our ongoing work with our partner schools and districts, BetterLesson has developed a unique depth of insight into the state of blended and personalized learning in the United States and the support teachers need in order for blended and personalized learning to flourish in the coming decades. Some of the insights we've arrived at corroborate and build upon the theories and insights offered by other thought leaders in the blended and personalized learning space. Other insights are new and contribute important layers of nuance to prevailing theories about what blended learning is and how to bring promising blended and personalized learning practices to scale.

Key Insight #1: The Changing Role of Blended Teachers

Effective blended teachers play many new roles. They are proficient technicians, innovative designers, and expert facilitators of student learning in a variety of learning modalities. Contrary to misconceptions about blended learning being a strategy for computers to "replace" teachers, **our Master Teachers have been clear that blended learning has helped both to sustain and retain them by making teaching more manageable, effective, and joyful.** This positive experience of being a blended learning teacher is largely attributable to **four main features of teaching in a blended environment**:

- The availability of high-quality digital content, online tools, and adaptive software makes it possible for blended teachers to be more responsive to individual students' needs in real time to the degree that they have always wanted to without having to do an unsustainable amount of planning each day.
- The availability of digital assessment tools can significantly reduce the time teachers have to spend sifting through hundreds of small pieces of data and can increase the time they spend on identifying trends and designing customized supports and growth opportunities for their students.
- Instead of having to stand in front of a class and "teaching to the middle" for hours every day, blended teachers are able to play the role of a coach/facilitator, which is ultimately more gratifying and effective than being expected to be a "sage on the stage" all the time.
- The ongoing and spontaneous problem solving required by a blended learning approach draws out teachers' creativity, which encourages experimentation and fosters deeper ownership of their practice and their students' growth and achievement.

"A conversation I have early on with my class is that I may be the teacher in the classroom but that doesn't mean that they're only going to learn from me."

— Raul Gonzalez, Aspire Titan Academy

Key Insight #2: Teacher Support and Continuous Professional Learning

Despite the apparent rewards of teaching in a blended environment, **blended teachers also have a unique set of challenges**. On the one hand, they face challenges that are particular to both the design and implementation of their blended models. Most of these challenges fall into one or more of the following categories:

- Developing and sustaining classroom culture, routines, and procedures that undergird effective blended and personalized learning.
- Shifting their planning and instructional practices, including using data nimbly to shape instructional decisions and skillfully orchestrating instruction in multiple modalities simultaneously.
- Cultivating mindset shifts among their students, especially building capacity among students to collaborate and to drive their own learning.

At the same time, **blended teachers also face many of the same teaching challenges that all other teachers face**—providing timely, clear, and actionable feedback; meeting the needs of diverse learners with limited resources; and designing learning experiences and assessments that are purposefully sequenced and meaningful to students. What we've learned from interacting with our Blended Master Teachers and other blended educators across the country is that blended teachers deliberately address these challenges with a range of blended instructional strategies that include the best of human-to-human interactions with technology-enabled learning for individuals and small groups.

"I became part of a terrific community of professional teachers and coaches. BetterLesson created activities and opportunities to reflect and improve my practice all within a very safe and thoughtful space."

— Aaron Kaswell, Middle School 88

We've also learned that:
- **All blended teachers need ongoing personalized support**, **including teachers who are leading-edge blended pioneers** in their schools, districts, or networks. Many of our Master Teachers are looked to as blended learning "experts" within their schools and districts, but these "experts" are seldom able to access the kind and the amount of support they need to improve their own practice. As part of the Blended Master Teacher Project, we convened our Master Teachers in small "PersonalizedPD" teams, virtual professional learning communities (PLCs) that met every two weeks and were organized by common teaching challenges identified by the teachers in the PLCs. It was clear from the Master Teachers' participation in these virtual PLCs that there is a substantial need for leading-edge teachers to find and collaborate with teacher peers who are at or near their level of development. We found that **creating virtual PLCs consisting of flexible teams of teachers with common developmental interests and needs is an excellent strategy for reducing isolation and for incubating developmentally appropriate innovation among leading-edge blended teachers and blended novices alike.**

Key Insight #3: Blended Learning Models as Entry Points

In the practice of our Blended Master Teachers, we see exciting examples of effective blended teaching and learning happening in a variety of contexts. At this point in time, when we are all still learning so much about the possibilities of blended and personalized learning, **we believe that it makes sense to invest in the growth, documentation, and development of a variety of blended learning models and approaches at varying degrees of scale.** Trying to arrive too quickly at a small number of "best practices" in such a nascent and dynamic field will likely stifle innovation, including teacher-led innovation, which is so apparent in our Master Teachers' practice.

Indeed, one thing that has become clear in working with our Blended Master Teachers is that **very few of them implement "pure" blended models of the variety that have been documented by the Clayton Christensen Institute and other thought leaders in the blended learning space** (e.g., station rotations, individual rotations, flex, etc.). As experienced blended practitioners with years of accumulated wisdom and a high degree of classroom autonomy, **many of our Master Teachers have evolved their practice by combining elements of traditional blended learning models to develop hybridized models in order to better address their students' needs**.

At the same time, **certain traditional blended learning models seem to be developmentally appropriate entry points for teachers and students at specific school levels**. For example, there is good evidence from our Blended Master Teacher Project that the following blended learning models are promising initial frameworks for students at each developmental stage:

- *Elementary School:* Blended rotational models like station rotations and individual rotations combine high-quality online learning experiences for students and dynamic student-specific data with excellent human-to-human teaching strategies. They also feature clear and predictable routines and rituals that elementary students need to be successful. Because many elementary teachers are used to teaching in stations, this approach is scalable throughout an existing elementary school and can be built into a new school design provided that equal attention is paid to teachers becoming as proficient in the digital learning strategies as they are in their human-to-human strategies in one-on-one and small-group settings.
- *Middle School:* Content-based blended programs like School of One and Discovery Education provide dynamic content and developmentally appropriate autonomy that make self-paced and personalized learning exciting to early adolescents. These programs embed elements of station rotations and individual rotations into their models and do not necessitate substantial changes in a school's master schedule or a whole-school commitment to a blended model. In this way, they offer schools and districts a way to implement blended learning at a controlled scale and to compare student outcomes against outcomes of similar students in non-blended learning environments, which might ultimately allow for a greater degree of choice by teachers, students, and their families about the types of teaching and learning environments that best fit their needs.

- **High School:** Mastery-based approaches that combine elements of project-based learning and/or flipped learning tap into older adolescents' need for authentic, hands-on learning that is social and personally meaningful. Effectively implemented, this type of blended model allows high school students a large degree of choice in the content they explore and the pace of their learning, resulting in higher degrees of student engagement and buy in without the shame and stigma that can plague adolescents who are either far ahead or far behind their peers in their academic and social development.

Although these entry points offer strong initial affinity with students and teachers at different developmental levels, our experience with our Master Teachers suggests that everyone involved in a blended learning initiative should understand that the ultimate goal is not to implement the chosen model with fidelity per se, especially since all of these blended model types are relatively new and likely to evolve. **The true goal of implementing a blended model as an entry point should be to test, adapt, and evolve the model locally to better meet the needs of the students for whom they are designed.** Teachers who lead and initiate blended learning models should be explicitly coached and authorized by their administrators to make these adaptations whenever the data about students' experience suggests that they should.

> *"I pride myself on the level of civic engagement in this classroom. When the work that (my students) do has a space outside of the classroom where it's being showcased there's this level of true authenticity to what they're doing."*
>
> — *Johanna Paraiso, Fremont High School*

Key Insight #4: Blended Development Paths

After examining the experiences of our Blended Master Teachers in developing and iterating on their models, **we have concluded that there are three equally valid development paths—each with its own specific assumptions, required conditions, and theories of action--that schools and districts that are just starting to explore blended and personalized learning approaches should pay close attention to when deciding how and when to launch their blended learning initiatives. All three paths require school, district, and network leadership to have clarity at the outset about the problems they are trying to solve through blended learning.**

The first path involves identifying and committing to a whole-school blended learning model. The second path is committing to a content-driven blended approach in a part of a school. The third path is supporting individual teachers and teams of teachers to design structured blended learning experiments that will reveal what works best to personalize student learning in a given context. None of these development paths is inherently good or bad; all three can be implemented effectively or poorly. Indeed, each of the three paths can be used in combination and in a sequence that makes sense in a given school or district. Identifying the right initial path should be based on a clear-eyed analysis of the human capital, political dynamics, and resource constraints and flexibilities in one's local context.

New charter schools that are either replications of existing models or new school models (e.g., Aspire, Rocketship, Summit, etc.) can build into their charters—and therefore into their budgets, their early technology investments, and their job descriptions and hiring decisions—a whole-school approach to blended and personalized learning. This approach to designing and launching a whole-school blended model can also be implemented in non-charter public schools and existing charter schools that are not blended by design (this was in fact the experience of the schools in the early Aspire network), but the transformation process often takes longer and is more dependent upon context-specific fiscal and political conditions than starting a new school with an embedded blended instructional model. Irrespective of the context in which a whole-school blended model originates, it is clear from our conversations with our Blended Master Teachers that **all whole-school blended models need to continue to evolve after initial implementation as teacher practitioners and administrators learn more about what their students need and the degree to which the chosen whole-school model meets those needs**.

Committing to a content-driven blended learning path in a defined part of a school such as a specific grade-level or content area can be a good strategy for schools and districts that possess the resources to purchase and maintain the software licenses and the hardware required to implement curricular programs like School of One and Discovery Education's Techbooks. This approach allows school leaders to launch their blended learning initiatives in a controlled and strategic way and allows them to provide an opportunity to learn in an innovative way to large numbers of students and to choose teachers who want to opt in to the new paradigm for teaching and learning without committing their entire schools to blended learning. Partnerships with curriculum providers can provide useful content and data that can be leveraged by teachers with a range of skills and interest in content curation and development. At the same time, teachers who crave more autonomy in the development of content for their students and/or who want more and different kinds of data than their schools' content providers generate can experience this type of blended model as restrictive.

The third path to blended and personalized learning in a school or district is a "bottom-up" approach that originates in a clear need to address specific teaching challenges and student growth areas. This approach can be pursued by individual teachers and small teams of teachers without a huge initial capital outlay or a time-consuming whole-staff consensus building process and can include designing and implementing multiple blended pilots simultaneously in a school or district. Many of our Master Teachers developed their models in this fashion, and BetterLesson has supported hundreds more teachers who are committed to building their capacity to meet their students' needs through blended and personalized learning approaches that begin as smaller bottom-up pilots. **This "bottom up" path often results in deep teacher understanding and buy-in due to teachers' participation in the design of**

their pilots and the relevance of the chosen blended systems and strategies to real problems of practice in their classrooms. As was the case with many of our Blended Master Teachers, this approach can also result in innovative blended model evolution and hybridization because teachers are able to adjust their models nimbly in response to real-time student needs and experiences.

> *"The number one motivation for creating [a small group and individual model] was to realign myself with the students. The power dynamics in my class are not about me telling students what to do, but aligning them with their own goals. I am their coach, but not their manager"*
>
> — *Ben Siegel, New Vision Charter High School for Humanities II*

Regardless of how or where a blended model is derived and what it consists of, we have found that a set of interrelated "Core Practices" form the foundation of all effective blended models. These Core Practices include:

- an intentional focus on non-cognitive skills development and student agency
- flexible modes of instruction driven by data and student needs
- a commitment to establishing and maintaining strong classroom culture
- effective systems for family and community engagement

> *"My classroom's flexibility allows me to confer with students and to give coaching and advice to them. The amount on 1-on-1 interactions have doubled in my blended learning classroom."*
>
> — *Freddy Esparza, Aspire Titan Academy*

These Core Practices are coherently and strategically linked to key blended "Design Elements" that our Master Teachers employ in different ways to personalize instruction for students. The three Design Elements, which can be combined effectively and organically, include:

- competency-based/mastery-based learning
- authentic/relevant learning experiences and assessments
- individual student learning paths

In building teachers' capacity to understand and implement effective blended and personalized learning strategies, we are finding that our Core Practices and Design Elements are in many ways more powerful starting points for organizing teacher entry into an exploration of blended and personalized learning than starting with using established blended learning models as the frame for professional learning and the design of student learning.

Key Insight #5: Student Experience

Although the Blended Master Teacher Project primarily focused on the strategies, decisions, and mindsets of teachers, we learned a great deal about how students experience blended learning along the way. Our interviews with students, our observation of their learning during our classroom filming sessions, and our review of student data, student work, and other artifacts our Master Teachers shared with us suggest that **effectively implemented blended learning strategies can have a transformative impact on student achievement and academic and social growth**. Our most powerful insights in this area include:

- **Personalizing the learning experience of students through blended learning works especially well for students who might otherwise (and may have previously) experience shame about where they are in their intellectual and academic development,** including English Language Learners, students who are "behind" or "ahead" of their peers academically, and/or adolescents. This insight is especially significant given that all of our Master Teachers serve a majority of students who are living in poverty.
- Effective blended teachers pay careful attention to their students' experience. They have a variety of formal and informal mechanisms for getting ongoing student feedback and they make adjustments to their practice based on real-time information. **Teacher responsiveness to students' experiences in a blended classroom results in a higher degree of student engagement and, ultimately, ownership of their own learning.**
- As with their teachers, the older a student is, the less likely s/he is to have previously experienced learning in a blended and personalized environment. **Older students**, who may have grown up learning in classrooms in which whole-class instruction was the norm and in which their personal needs and potential were seldom the focus of their interactions at school, **often need time to adjust to the shifts in the expectations their blended teachers have of them and the new modalities of learning that form the core practices of an effective blended classroom**. At first, some students may not welcome the new freedoms and the associated social and academic expectations that accompany this new way of learning. Therefore, regardless of students' previous experiences with blended learning, **all students need ongoing and explicit instruction about how to learn differently in a blended classroom**. For example, effective blended teachers, especially those in self-paced classrooms, teach students strategies and foster new mindsets to help them take more agency over their learning while navigating the tension between their individual growth and achievement and the need for whole-class community.

Key Insight #6: Impact of Administration

Not surprisingly, school, district, and CMO network administrators have a significant impact on the success and the challenges of blended teachers. Based on what we've learned from our Master Teachers, **administrators who are the most supportive**:

- **Encourage risk-taking** among their teachers and create a culture in which it is safe for teachers to try new things and fail.
- **Ensure that teachers have the resources they need** in a timely fashion (e.g., planning and release time, hardware, software, internet connectivity, etc.).
- **Authorize teachers to evolve the school's blended learning model** (i.e., if something isn't working, teachers are encouraged and trusted to make changes). Even teachers within well-defined blended models need and want the flexibility to iterate on the models they are implementing based on their students' needs.

Key Insight #7: Impact & Implication of Available Resources

As we have indicated at various other points in this paper, all of our Master Teachers teach in communities that are generally under-resourced. There was, however, significant variation among the cohort members in terms of the resources that their individual schools, charter networks, and districts were able to bring to bear to support them and their students. Some of our Master Teachers teach in 1:1 environments with strong wireless infrastructure and good technical support. Others teach in environments in which the wireless access, air conditioning, and electrical power were not consistently reliable and in which they were serving as their own tech support personnel. Despite these challenges, some of our most under-resourced Blended Master Teachers found creative ways to cobble together access to powerful blended tools at low/no cost. Their experience has lead us to the following hopeful insight: Creative blended teachers who are given control of a modest budget ($1,000-$2,000/year) can devote more of their time and energy to planning excellent experiences for their students and less time scrounging and hacking for free resources, grants, and workarounds.

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Section 3: Conclusions and Next Steps

There are approximately 50 million public school students in the United States, all of whom need and deserve an educational experience that is responsive to and driven by their needs. Blended and personalized learning practice will continue to evolve rapidly as the pace of the development of educational technology accelerates and market forces being powerful learning tools into classrooms across the country that make it easier for teachers to focus their energy and attention on student learning that requires human-to-human interaction. Meanwhile, policymakers, foundations, school and district administrators, and teacher practitioners will all need additional resources and support as they consider the best path for launching and nurturing the development of blended and personalized learning in their local contexts.

As an innovator in the national conversation about teacher growth and development, BetterLesson will continue to provide leadership in the effort to scale effective blended and personalized learning strategies, mindsets, and models. We will convene, support, and learn from new and experienced blended and personalized educators in our partner schools and districts via our PersonalizedPD Design Studios and ongoing teacher coaching. We will also devote additional time and resources to thought leadership, including publication of our learning about coaching teachers as well as facilitation of virtual and in-person convenings of teachers who are interested in building their capacity to employ blended learning strategies.

We are in active and very hopeful conversations with major national foundations to launch a second and larger Blended Master Teacher Project in school year 2016-17. Our learning agenda for the next Blended Master Teacher Project includes identifying and documenting:

- Effective whole-school blended learning models
- Effective practice at additional grade levels and content areas (e.g., World Languages, kindergarten, upper-level secondary mathematics, social emotional learning, middle school science, etc.)
- Effective strategies for supporting special student populations (e.g., students with disabilities, English Language Learners, "gifted and talented" students, students who are significantly overage for grade and/or students who have experienced interrupted schooling, etc.)
- Effective blended models and practices in suburban and rural communities
- Effective strategies for collaboration with colleagues, families, and the community

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"Blending your classroom doesn't just make your life easier (though it does), but it fundamentally changes the purpose of learning for students and the role of the teacher. It allows me the flexibility to support students in the ownership of their own learning by focusing on outcomes and soft skills that will support students in their lives."

— Daniel Guerrero, Holmes Elementary School

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About the Authors

Jeff Liberty is BetterLesson's Vice President of Personalized Learning. An educational innovator with over twenty years of experience as a teacher, an urban school reformer, and a founding principal of a charter school in Boston, Jeff joined the BetterLesson team in May of 2014 to design and lead the Blended Master Teacher Project. Jeff is responsible for BetterLesson's blended and personalized learning partnerships with schools, districts, and foundations across the country and BetterLesson's thought leadership in the area of blended and personalized learning.

Abbey Goldstein Moss joined BetterLesson's Blended Learning Team in September of 2014. Formerly a bilingual elementary teacher in Texas, Abbey also previously served as a Design and Implementation Team Consultant at Education Elements and as the Education Director of the Education Innovation Fellowship at the CityBridge Foundation. Abbey was named BetterLesson's Director of Master Teacher Projects in February 2015 and assumed responsibility for the day-to-day operations of the Blended Master Teacher Project until it concluded in August 2015. She now serves as BetterLesson's Director of Design Studios and is a Blended Learning Coach as well.

Nicole Nardella, an experienced BetterLesson Project Manager and a former TFA Corps member in Washington, D.C., played a prominent role in selecting the members of the Blended Master Teacher Project and in designing all of the systems that supported and organized teachers' participation, including the capture and curation of their blended strategies.

Daniel Utset-Guerrero believes deeply in the personalization of student learning and the strengthening of the teaching profession to build students who challenge the 21st century's problems. Daniel began his career teaching 4th and 5th graders in a high-needs school in his hometown, Miami, Florida. In response to the immense challenges his students faced, he devised blended strategies to personalize learning and increase student agency in his classroom. In 2014, Daniel was one of eleven teachers selected to share their instructional models and strategies as part of BetterLesson's Blended Master Teacher Project. In 2015, Daniel joined the BetterLesson Team as a Blended Learning Instructional Coach.

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