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“Teaching is evolving, and technology is an important part of that evolution. Students deserve to learn using the technology they will inevitably encounter when they enter college and/or the workforce.”

- Catlin R. Tucker

*Blended Learning in Grades 4-12*
A Common Definition

More and more educators are combining traditional instruction with computer-based learning experiences, a practice known as blended learning. Blended learning has existed for years but as our world becomes increasingly tech-dependent, the role of blended learning is shifting from a luxury to a necessity. Providing opportunities for students to learn using technology opens a world of new possibilities and helps prepare them to be 21st century citizens. Schools across the world have made great strides in recent decades to increase student access to technology, but more can be done to increase its impact.

At times the definition of blended learning can be oversimplified or misunderstood.

Blended learning is not just giving a student a computer. *It is leveraging those technological tools to transform instructional design to shift towards personalization.*
Implementation can take many forms including: Rotation¹, Flex, A La Carte, and Enriched Virtual Models. Even though there are many ideas on how to implement blended learning, a widely accepted definition from Horn and Staker includes the following components of true blended learning programs:

- It involves teaching and learning within a formal education program
- Students learn at least in part through online delivery of content and instruction
- Students have some level of control over time, place, path, and/or pace
- Part or all of instruction is delivered away from home in a supervised, brick-and-mortar location

The authors of *Mean What You Say: Defining and Integrating Personalized, Blended, and Competency Education* emphasize that “the most important component of the definition is the element of student control.” This is a crucial aspect of the definition which this guide will investigate further.

¹There is a glossary of these models with complete descriptions at the end of this guide.
Blended learning is an offshoot of the broader idea of online learning, originally designed to support specific, non-traditional student needs. *The Rise of K-12 Blended Learning*, explains that “online learning started by serving students in circumstances where there is no alternative for learning - in the advanced courses that many schools struggle to offer in-house; in small, rural, and urban schools that are unable to offer a broad set of courses with highly qualified teachers in certain subject areas; in remedial courses for students who need to recover credits to graduate, and with home-schooled and homebound students.”

The idea of blended learning spread to classrooms worldwide, as schools were asked to do more with less and educators realized they could advance learning by harnessing the strengths of both classroom and online modalities.

In today’s schools, blended learning is becoming increasingly utilized due to improvements in technology and growing access to online learning materials. However, blended learning requires thoughtful implementation to reap its full benefits. Kiddom\(^2\) believes a successful blended learning program is the intentional integration of educational technology within the classroom to enhance the learning process. Students engage with content via multiple modalities and gain some control over their learning pace. Effective blended learning models have curricula designed for integration, student buy-in, and access to appropriate technology and resources.

\(^2\)Learn more: http://www.kiddom.co/teach/teaching-styles/blended-learning
In this guide, we seek to provide educators with a better understanding of how to implement blended learning programs, particularly in schools using standards-based or competency-based grading, as well as explore the ways in which Kiddom can support this effort.
Connecting Blended Learning to SBG

Blended learning in many ways is dependent on an understanding of standards-based grading (SBG). Since students are accessing personalized content and progressing at their own pace, an understanding of competency-based learning is implicit. The Innosight Institute identified many key components to maximize blended learning’s transformational potential including “moving to a system where students’ progress is based on their mastery of academic standards or competencies as opposed to seat time or the traditional school calendar.” In SBG 101: An Introduction to Standards-Based Grading, we explain the relationship between SBG and blended learning:

“As more schools adopt technology platforms and blended-learning models, understanding standards-based planning and assessment has become even more crucial. Using a SBG mindset when choosing which educational technology resources to use or purchase for schools ensures that the tools that provide the best curricular content or data analysis are chosen, not just the flashiest.”

Powerful blended learning designs build on standards-based instruction by ensuring failure is not an option. Technology can offer immediate intervention when a student is not demonstrating mastery of a skill.

³Learn more about SBG mindset and practice: http://www.kiddom.co/teach/standards-based-grading
The Case for Blended Learning Classes

When considering a change to instruction it is important to consider key stakeholders: students and teachers. Catlin Tucker, author of *Blended Learning in Action*, explains how both students and teachers benefit from blended learning instruction: “Blended learning allows for more communication and collaboration both synchronously and asynchronously, creates more opportunities for students to drive their own learning, provides teachers with more time to work one-on-one or in small groups to differentiate and personalize learning while providing more timely feedback.”

**Communication**

Purposefully designed blended learning classes can improve communication between teachers and students, as well as foster student-to-student collaboration. Oxford Learning describes this benefit:
“When students need to contact an instructor – whether during or outside of class hours – blended learning tools enable them to make this connection at their own convenience. Instructors can then respond directly to students and help these students using relevant online tools, in addition to any face-to-face interaction. All students are able to voice their thoughts and opinions and collect feedback from their peers – even if they were hesitant to say it in class, or didn’t think of the point until later. This allows all students to talk freely about course topics and gain constructive feedback.”

Heather Starks, a 12th grade English Teacher at Warren Central High School writes in her blog, *Why I am Loving Instead of Hating the Beginning of This School Year,* “I have never had this kind of one-on-one time with my students before! I actually feel like I know many of my students better now, after just 6 weeks of school, than I knew many of my students that I had for an entire year in the past. Blended learning can help you optimize face-to-face time by providing data on trends for purposeful grouping and affording more 1:1 and small group time.”
Personalized Instruction

Improvements in face-to-face communication contribute to the personalization of instruction. When students spend time on personalized skill instruction online, teachers are able to use face-to-face time to further personalize with engaging learning opportunities such as Socratic seminars and projects that require higher order thinking. The technology itself is not the “magic wand” for personalization. Bronx Arena, a high school serving at-risk youth in New York City is well known for its blended learning implementation. Sam Sherwood, former assistant principal, describes how the staff views blended learning: “Our teachers see blended learning as a tool to reinvent their craft... Blended learning is about the ability to personalize instruction. The only way to do that is for teachers to use the data constantly to individualize instruction and provide targeted instruction.”

Student-Driven Learning

One way teachers personalize learning is by allowing for student choice. One of the benefits of blended learning is that technology helps to expand and enhance student choices for educational resources and learning materials. The pathways for how a student learns, where and when a student learns, and how they demonstrate mastery can be flexible with the support of technology.
“Blended learning is not teachers simply putting lesson plans online or content resources online. It is not just having teachers recording lessons so that all students do the exact same lesson in the same format with the same pacing each day.”

- Mean What You Say: Defining and Integrating Personalized, Blended, and Competency Education
Previously mentioned teacher, Heather Starks, uses playlists in her blended learning practice. She explains, “In many cases, they are given options of what to complete on the playlist, giving students a sense of ownership in their learning. The idea that they have some voice and choice in their learning is having a positive impact on students’ motivation and their grades.” While it’s possible to provide choice for students in a traditional classroom, the added technology components of blended learning amplify this experience.

*Improved Self-Management Skills*

From the lens of social emotional learning (SEL⁴), another reason to consider adopting a blended learning instructional practice is the natural opportunity it creates to develop self-management skills. Self-management includes the ability to set and work towards personal and academic goals and is a vital skill for 21st century students (as identified by CASEL, the Collaborative for Academic, Social, and Emotional Learning). In 2014’s *Blended Learning Report* by the Michael and Susan Dell Foundation, a case study of K-12 schools that adopted blended learning revealed most sites adopted a goal setting routine for their blended learning classes and “goal setting helped students to become more invested in their learning and to see both the rewards of meeting goals and consequences of failing to meet them.”

⁴Learn more about social emotional learning: http://www.kiddom.co/teach/social-emotional-learning
Results

Do students actually perform better in blended learning classes? The research is trying to catch up. While it’s difficult to capture the variety of different factors involved in implementing blended learning programs, studies reveal a positive impact on student learning outcomes. A meta-analysis of 45 studies of online and blended learning programs performed by Teachers College at Columbia University concluded, “blended approaches have been more effective than instruction offered entirely in face-to-face model.” In this meta-analysis, studies were eliminated if they didn’t measure specific learning outcomes such as scores on teacher-created midterms/finals, standardized tests, researcher-created assessments, and grade point averages.

The conclusions on the effectiveness of blended learning were based on improvements in these learning outcomes. This analysis also emphasized the advantage of blended learning to online learning: “The meta-analysis findings do not support simply putting an existing course online, but they do support redesigning instruction to incorporate additional learning opportunities online while retaining elements of face-to-face instruction.”
According to the Innosight Institute, blended learning classes have the best results when teachers use the face-to-face time to “focus on high-value activities like critical thinking, writing, and project based learning as they spend less time on low-value, manual tasks.”

So students performed better, but what do teachers have to say about it? In a research report on the adoption of blended learning models in five K-12 schools, the SRI International Center for Technology in Learning gathered teacher feedback on their satisfaction with blended learning instruction and the impact on student learning. According to the report, a majority of teachers surveyed believed that “computer-mediated instruction played a major role in providing enrichment for advanced students and remediation for struggling students.”

At KIPP Empower Academy, a school that uses an in class-rotation blended learning model, students were grouped by current mastery level and teachers differentiated the instruction based on the level of each group. While a group of students completed personalized work using adaptive online software, the other students worked directly with their teacher.
Becoming a Blended Learning School

While shifting to a blended learning model may seem like the obvious next step, it’s important to learn from the struggles of early implementers. The Blended Learning Report researchers found that teachers’ satisfaction with their school’s blended learning models varied. While some teachers at three of the schools were satisfied with blended learning instruction, about half of the teachers at two of the schools were not. There are important lessons to learn from these early adopters that can help schools prepare to teach blended learning classes of their own. The research revealed the following patterns relevant for schools adopting blended learning models:

- Prepare for internet issues (infrastructure and technology). A reliable Internet connection and sufficient bandwidth are vital.

- On-site IT support and backup plans are critical to buffer schools from the inevitable technology issues.

- Blended learning coordinators played an important role in supporting schools’ adoption of blended learning.
● Establishing productive, self-directed learning cultures is important for students to fully benefit from online learning.

● Single sign-on portals can allow even very young children to quickly access online programs.

● Teachers’ satisfaction with training associated with the adoption of the blended learning model varied by site.

These are some of the operational implications of blended learning instructional models, but once schools solve for these potential issues, they find they can use staff, space, and time more efficiently and effectively.

School leaders may also need to shift the mindsets of teachers who view technology as a babysitter. By sharing the rationale in this guide, they can combat the idea that blended learning is just about giving students access to technology and support teachers as they redesign curriculum to create student-personalized learning experiences.
Teaching a Blended Learning Class

As you prepare to teach a blended learning class, remember that a shift in instructional practice should enhance your class. Determine why you want to use it or which issue you hope to solve. Are you constantly torn between the needs of lower and higher performing students and want a way to differentiate instruction? Are you hoping to revive student motivation by supporting student choice? Do you feel passionate about embedding tech skills into your assignments so students are prepared for college and careers? Blended learning can address common pedagogical issues but in order to allow for continuous growth and improvement, identify a specific goal and use data to assess how the change in teaching method strengthens your impact.

Keep in mind, you don’t have to be part of a blended learning school to experiment with it. Inquire about internet bandwidth with your school administrator(s) or operations team and find out who is available for IT support. Prepare to share your reasons for making this instructional shift.
There is an abundance of literature on getting started, but we’ll synthesize it here:

1- Determine your technological requirements and constraints. How are you planning to use technology? How prepared are you to take advantage of the technology addition? Do you have enough devices or know how to get more?

2- Explore how other educators are implementing blended learning in their classroom and decide what works best for you. There is a video directory of blended learning in action at http://www.blendedlearning.org/directory/ that features different blended learning methods.

3- Get excited about enhancing your curriculum! This is an opportunity to hone your craft: you can revive the joy of teaching that can sometimes get lost in the day-to-day. Finding the right tools to support the procedural skill development to allow you to plan engaging projects is an important part of this process. Try not to feel like you need to reinvent the wheel or record countless videos of yourself (unless you absolutely love it).
Kiddom Supports Blended Learning

Kiddom supports blended learning by connecting assessment, curriculum, communication, and analytics in one free platform.

One of the findings from the *Blended Learning Report* by The Michael and Susan Dell Foundation was “how assignable online instruction programs are may limit their integration with the classroom curriculum.” Kiddom addresses this issue in three ways.
Teachers may link and/or share videos directly with students from their dashboard. Videos can be assigned as primary or supplemental sources of instruction, enrichment, or intervention.

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**Chemistry of Life**


**Elements and Atoms**

How elements relate to atoms. The basics of how protons, electrons, and neutrons make up an atom.
Kiddom’s Google Drive integration allows teachers to seamlessly share Drive attachments with students. Students access their own unique copy, complete the assignment in Drive, and notify teachers in Kiddom when finished.
Content integrations provide teachers with an unlimited library of premium, standards-aligned content. Teachers may explore these resources and tailor cohesive curriculum for a class, a group of students, and even individual students.
The Kiddom platform addresses several of the factors that limit teachers’ use of data from online systems to inform instruction. According to the *Blended Learning Report*, “Because the data from the online programs were not well integrated into a single dashboard, many teachers found that reviewing the data was too time consuming to do on a regular basis.”

**Kiddom allows teachers to access data from multiple sources on one beautiful, actionable dashboard.** Automatic grade backs from third party partners simplifies educators’ lives by eliminating low-value manual tasks like student assessment data entry. Kiddom allows you to reap the benefit of improved communication. Students can communicate directly with their teachers and ask for additional resources to meet their needs.

Soon, teachers using Kiddom will be able to access and assign curated playlists: educator-reviewed units pre-packaged for student learning. Kiddom’s curriculum specialists review the abundance of online content and package exemplars in a curated playlist that can be flexibly integrated with the teacher’s curriculum planner.
Share Your Story

Now that you have the basics, start the process of incorporating blended learning in your classroom. Join our community of lifelong learners to share lessons learned, best practices, and ask burning questions. Tweet @kiddomapp (with #blendedlearning) with tips and tricks. This guide is just the beginning.

Finally, Kiddom is looking for passionate and inspiring educators to help ground the organization in their work and connection to school communities via our Educator Brain Trust. The Educator Brain Trust understands how vital it is for education technology companies to understand “what it’s really like” in schools, big and small. They help Kiddom develop solutions to serve all students. To learn more about Kiddom’s Educator Brain Trust, visit: http://www.kiddom.co/brain-trust
Glossary of Blended Learning Terms

1. Rotation Model - a course or subject in which students rotate on a fixed schedule or at the teacher’s discretion between learning modalities, at least one of which is online learning. Other modalities might include activities such as small-group or whole-class instruction, group projects, individual tutoring, and pencil-and-paper assignments. Students mostly learn on the brick-and-mortar campus, except for homework assignments.

A. Station Rotation - a course or subject in which students experience the Rotation model within a contained classroom or group of classrooms. The Station Rotation model differs from the Individual Rotation model because students rotate through all of the stations, not only those on their custom schedules.

B. Lab Rotation - a course or subject in which students rotate to a computer lab for the online-learning station.

C. Flipped Classroom - a course or subject in which students participate in online learning off-site in place of traditional homework and then attend the brick-and-mortar school for face-to-face, teacher-guided practice or projects. The delivery of content and instruction is all online, which differentiates a Flipped Classroom from students who are merely doing homework practice online after school.

D. Individual Rotation - a course or subject in which each student has an individualized playlist and does not necessarily rotate to each available station or modality. An algorithm or teacher(s) sets individual student schedules.

2. Flex Model - a course or subject in which online learning is the backbone of student learning, even if it directs students to offline activities at times. Students move on an individually customized, fluid schedule. The teacher of record is on-site, and students mostly learn on the brick-and-mortar campus, except for homework assignments. The teacher of record or other adults provide face-to-face support on a flexible and adaptive as-needed basis through activities such as small-group instruction, group projects, and individual tutoring. Some implementations have substantial face-to-face support, whereas others have minimal support. For example, some Flex models may have face-to-face certified teachers who supplement the online learning on a daily basis, whereas others may provide little face-to-face enrichment. Still others may have different staffing combinations. These variations are useful modifiers to describe a particular Flex model.

3. A La Carte Model - a course that a student takes entirely online to accompany other experiences that the student is having at a brick-and-mortar school or learning center. The teacher of record for the A La Carte course is the online teacher. Students may take the A La Carte course either on the brick-and-mortar campus or off-site. This differs from full-time online learning because it is not a whole-school experience. Students take some courses A La Carte and others face-to-face at a brick-and-mortar campus.
4. **Enriched Virtual Model** - a course or subject in which students have required face-to-face learning sessions with their teacher of record and then are free to complete their remaining coursework remote from the face-to-face teacher. Online learning is the backbone of student learning when the students are located remotely. The same person generally serves as both the online and face-to-face teacher. Many Enriched Virtual programs began as full-time online schools and then developed blended programs to provide students with brick-and-mortar school experiences. The Enriched Virtual model differs from the Flipped Classroom because in Enriched Virtual programs, students seldom meet face-to-face with their teachers every weekday. It differs from a fully online course because face-to-face learning sessions are more than optional office hours or social events; they are required.
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