Part 1

Understanding the Basics and Getting Ready

The Basics of Blended Learning

Key objectives

○ **Identify what is and is not blended learning**

○ **Recognize and distinguish the models of blended learning**

○ **Predict the types of circumstances where each model works best**

Content summary

Overview of blended learning

The future of education

Today's students are entering a world in which they need a student-centered schooling system. Student-centered learning—the opposite of what we call today's predominant factory-model school system in which students learn in lockstep—is essentially the combination of two related ideas: personalizing learning and competency-based learning (also called mastery-based learning, mastery learning, proficiency-based learning, or sometimes standards-based learning).

Personalizing learning

There are several notions of what personalized learning is, but when we say it, we think of it as a verb: personalizing learning. That means tailoring learning to an individual student's particular needs—in other words, customizing or individualizing to help each individual succeed, given that students learn at different paces, possess different background knowledge, and harbor different interests that ignite their learning. The power of personalizing learning, understood in this way, is intuitive. Research shows that when students receive one-on-one help from a tutor instead of mass-group instruction, they typically do significantly better. This makes sense, given that tutors can do everything from adjusting their pace if they are going too fast or too slow to rephrasing an explanation or providing a new example or approach to make a topic come to life for a student. A personalized approach also implies that students can receive a one-on-one learning experience when they need it, but can also partake in group projects and activities when that would be best for their learning.

Competency-based learning

The second critical element of student-centered learning is competency-based learning; that is, the idea that students must demonstrate mastery of a given subject—including the possession, application, or creation of knowledge, a skill, or a disposition—before moving on to the next one. Students don't move on from a concept based on the average pace of the class or within a preset, fixed amount of time, as they do in the traditional factory-model school system. Competency-based learning embeds aspects of perseverance and grit because in order to progress, students have to work at problems until they succeed; they can't just wait it out until the unit is over. If students move on to a concept without fully understanding a previous one, it creates holes in their learning. No wonder Sal Khan and many other luminaries have latched on to the many studies that show competency-based learning producing better results than time-based learning.

Blended learning as the enabler

When implemented well and jointly, personalizing learning with competency-based learning form the basis of a student-centered learning system. An important part of student-centered learning is that students build agency so that they can ultimately be effective lifelong learners, which is necessary in today's rapidly changing world, in which knowledge and skills become outdated quickly.

The challenge lies in how to implement student-centered learning at scale. Paying for a private tutor for every student would of course be wonderful, but it's prohibitively expensive. Differentiating instruction for each child—a step toward personalizing learning that teachers across America try valiantly to do—is difficult in today's factory-model education system. Similarly, allowing all students to progress in their learning as they master material may be possible in a school with a small student-to-teacher ratio and flexible groupings, but it is taxing

on an individual teacher who has to provide new learning experiences for students who move beyond the scope of a course, and it therefore strains the resources of most schools.

This is why blended learning is so important. Blended learning is the engine that can power personalization and competency-based learning. Just as technology enables mass customization in so many sectors to meet the diverse needs of so many people, online learning can allow students to learn any time, in any place, on any path, and at any pace—at scale. At its most basic level, it lets students fast-forward if they have already mastered a concept, pause if they need to digest something, or rewind and slow something down if they need to review. It provides a simple way for students to take different paths toward a common destination. It can free up teachers to become learning designers, mentors, facilitators, tutors, evaluators, and counselors to reach each student in ways never before possible.

Of course, just because a school adopts online learning does not guarantee that learning will be personalized or competency based; we wrote *Blended* and this accompanying workbook to help educators and students around the world realize these benefits. The blend of online learning into schools marks the most powerful opportunity the world has known to make student-centered learning a widespread reality.

What is blended learning?

Blended learning is critically different from—but easily confused with—the much broader trend of equipping classrooms with devices and software. The common use of "blended learning" in education circles and the media suffers from a Goldilocks problem. People use the term either too broadly, to refer to all education technology ("edtech") crammed into a classroom, or too narrowly, to point to only the types of blended learning that they like best.

Beginning in 2010, we interviewed the educators behind more than 150 blended-learning programs to arrive at a "just right" middle-ground definition that is broad enough to allow

for variation but narrow enough to differentiate it from the bottomless category of edtech in schools. The definition has three parts.

Blended learning is:

- Any formal education program in which a student learns at least in part through online learning, with some element of student control over time, place, path, and/or pace;
- The student learns at least in part in a supervised brick-and-mortar location away from home;
- The modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience.

One note for clarity. When we say "modalities," we mean the different mediums and formats in which a student learns—whether the learning occurs online, offline, in a project, through direct instruction, and so forth.

Blended examples

Blended provides a breakdown of each of these parts of the definition. This section offers hypothetical situations to help you understand whether a student is experiencing blended learning.

Scenario 1

Dominique's teacher posted all of his lesson plans, assignments, and quizzes on Blackboard's learning management system. Dominique can access this class page online from her brick-and-mortar classroom or from home using the tablet her school loaned her.

This is not blended learning. Because the Internet is only hosting information and tools for Dominique's class, but is not managing the delivery of content and instruction—the face-to-face teacher is doing that—Dominique does not have control over the time, place, path, or pace of her learning. The class is learning the same thing at the same time and moving through

the curriculum as a single batch, or perhaps in a few groups, instead of using an online platform to serve each student the right level of content at each moment of learning. Dominique is in a "technology-rich" classroom, but not a blended one.

Scenario 2

Matthew is a full-time student at Mountain Heights Academy. He completes his work on his own off campus but connects with his online teachers live via webcam and Skype video-conferencing software. He also uses Skype to connect synchronously with the school's virtual chess club and virtual student government.

This is not blended learning. Matthew is not learning in a supervised brick-and-mortar location away from home. He is a full-time virtual school student, not a blended learner.

Scenario 3

Twenty students in a class are working on Khan Academy at their individual, appropriate level. Meanwhile, the teacher is working with ten other students who are all struggling with the same concept.

This is blended learning. Because students are learning at their own pace and the online and offline learning are connected—that is, the teacher is using the online activity to inform how to target instruction and what students do offline—it is blended learning.

Check for understanding

Is it blended?

Here are some opportunities for you to practice identifying whether a student is experiencing blended learning. The answers and explanations are in an appendix at the end of this module.

1. A teacher assigns students a group project in which they use Google Docs to collaborate on the writing and research.

    Blended learning? Yes   No

    Why?

    _____

    _____

2. A teacher shows an online video in class during a lecture to help illustrate a point.

    Blended learning? Yes   No

    Why?

    _____

    _____

3. Students choose from a list of learning resources that include videos, texts, and simulations to master content so that they can pass a quiz testing their knowledge of tectonic plates.

    Blended learning? Yes   No

    Why?

    _____

    _____

4. Students play Minecraft after completing their regularly scheduled class work in geometry.

    Blended learning? Yes   No

    Why?

    _____

    _____

5. Students use a math program that provides practice problems with varying difficulty based on the questions they answer correctly and incorrectly. Meanwhile, the teacher uses this data to track the progress of the class.

    Blended learning? Yes   No

    Why?

    _____

    _____

6. Students work independently through an online course as a teacher periodically calls them into one-on-one meetings to discuss their progress.

    Blended learning? Yes   No

    Why?

    _____

    _____

Content summary

Models of blended learning

Blended learning generally looks different across different classrooms and schools, but typically fits somewhere within the broad parameters of four main models.

Rotation model

This category includes any 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 such activities as small-group or full-class instruction, group projects, individual tutoring, and pencil-and-paper assignments. Students learn mostly on the brick-and-mortar campus, except for any homework assignments. Broadly speaking, there are four different types of Rotation models:

1. 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.

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

3. 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 primary delivery of content and instruction is online, which differentiates a Flipped Classroom from a class in which students are merely doing homework practice online at night.

4. 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 sets individual student schedules. An individualized

playlist is a curated set of online and offline resources, lessons, and activities through which students learn. In some cases, students have a prescribed pathway; in others, students have the choice of how to navigate the playlist.

Flex model

This category refers to 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 among learning modalities. The teacher of record is on-site, and students learn mostly on the brick-and-mortar campus, except for any homework assignments. The teacher of record or other adults provide face-to-face support on a flexible and adaptive as-needed basis through such activities 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.

A La Carte model

This model encompasses any 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.

Enriched Virtual model

This category includes any 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.

Figure 1.1 offers a diagram of the terms. In many cases, schools use multiple models and combine them in different ways to create a custom program. The purpose of these terms is to provide a shared language to describe the basic building blocks of the various combinations.

Figure 1.1: Blended Learning Models
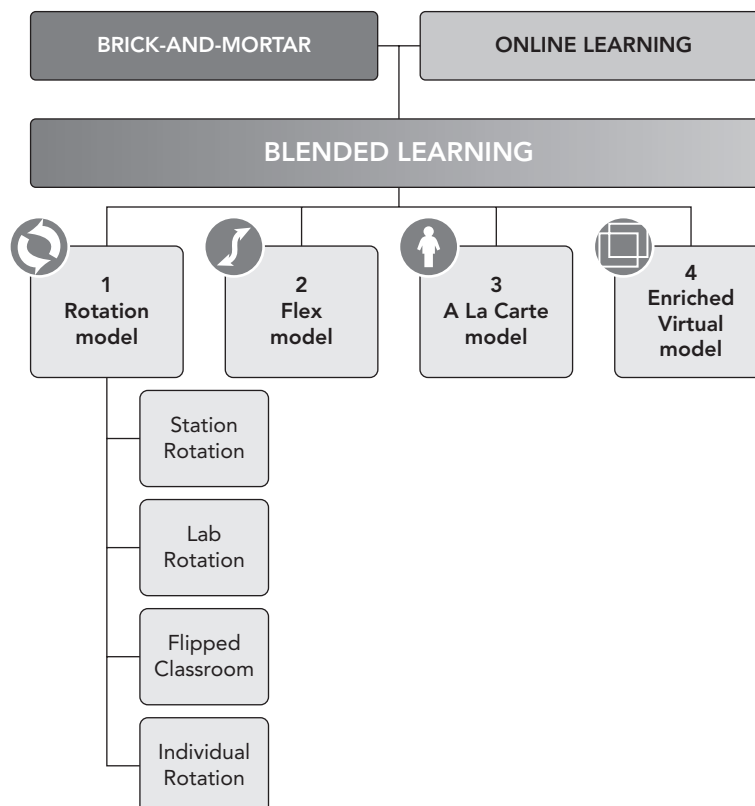
Understanding and using the vocabulary of the blended-learning models serves two purposes. First, it helps you communicate your vision to other stakeholders. When you explain that your design involves a Flipped Classroom combined with a Flex model, for example, other people with at least a basic familiarity with blended learning get a preliminary idea of your intentions in only a few words. Second, naming the models helps with your research and development. Other blended programs across the world are tagging their designs with the names of the models. Enter the model name in an online search at the Blended Learning Universe or in Google, for example, and you will find examples of other blended programs that resemble your design.

Blended model examples

This section provides hypothetical situations to help you identify the different models of blended learning.

Scenario 1

A class begins with a whole-group discussion. Students then break into groups and rotate at fixed times through three stations:

- Small-group direct instruction, in which the teacher uses resource books and works closely with individual students
- Individualized learning, using online software to practice reading skills
- Individual modeled and independent reading, in which students read paperbacks or listen to an audio book

This is the Station Rotation model. Students are rotating on a fixed schedule among learning modalities.

▶ WATCH CLIP 4: Aspire ERES Academy uses a Station Rotation to facilitate differentiated instruction.

www.wiley.com/go/blended4

Scenario 2

Students rotate between traditional classroom learning and a computer lab for their online learning, where they learn at their own pace.

This is the Lab Rotation model. Students are rotating on a fixed schedule and go to a lab for online learning.

▶ WATCH CLIP 7: Rocketship Education relies on a strong culture and an innovative staffing model to facilitate its Lab Rotation.

www.wiley.com/go/blended7

Scenario 3

Students watch Khan Academy videos online at home and then come to school, where they engage in practice and projects with their fellow students and the teacher.

This is the Flipped Classroom model. Students are learning online from Khan Academy at home in place of doing traditional homework and then attend the brick-and-mortar school for face-to-face, teacher-guided practice and projects.

▶ WATCH CLIP 9: Some teachers at DongPyeong Middle School flipped their classrooms to engage their students and boost learning.

www.wiley.com/go/blended9

Scenario 4

All students rotate once in their math class, but while one child learns online by himself for both rotations, another child works in a small group with the teacher and then in a group project for her second rotation. Still another child learns first in small-group instruction, but then learns online with a virtual tutor.

This is the Individual Rotation model. Each student has an individualized playlist and does not necessarily rotate to each available station or modality, but all students rotate at a fixed time.

▶ WATCH CLIP 10: The Individual Rotation model at Carpe Diem in Yuma, Arizona, relies on a unique facility and staffing design.

www.wiley.com/go/blended10

Scenario 5

Students in a center take a course online, while an in-person teacher moves around to help them one-on-one or pull them out into small groups when it makes sense to do so.

This is the Flex model. An online course is the backbone of student learning, and students are moving on an individually customized, fluid schedule among learning modalities. The teacher of record is in person.

▶ WATCH CLIP 11: At San Francisco Flex Academy, students learn online and get help on a flexible basis from academic coaches and teachers.

www.wiley.com/go/blended11

Scenario 6

A student takes an AP course online with a virtual teacher for her sixth class of the day at a traditional brick-and-mortar school.

This is the A La Carte model. A student is taking a class entirely online with an online teacher but also learning at a brick-and-mortar school for the rest of the day.

Scenario 7

A student learns online from home three days a week to accommodate her training schedule for ice hockey. The other two days, she learns at a traditional school with her fellow students and teacher.

This is the Enriched Virtual model. The student has required face-to-face learning sessions with her teacher of record but then learns online remotely for the rest of her learning.

▶ WATCH CLIP 12: Henry County Schools in Georgia provide a learning space and face-to-face teachers to enrich students who are taking online courses at Impact Academy.

www.wiley.com/go/blended12

Check for understanding

Which blended model is it?

Here are some opportunities for you to practice identifying which model of blended learning is being used in the different scenarios. The answers and explanations are in the appendix.

1. Aaron Sams uses online learning to teach his students science. Watch this video to see how he does it: www.wiley.com/go/blended8.

    Which model of blended learning is it? _____

    Why?

    _____

    _____

    _____

2. In Spanish class, Zach and Paula spend the first twenty minutes learning about irregular verbs with their whole class. In the next twenty minutes, Zach goes with half the class to the computer lab to practice irregular verbs online; the online program assesses his abilities and sends the results to the teacher. Paula and the other half of the class pair off to practice speaking and listening to irregular verbs. In the final twenty minutes of class, the two groups switch while the teacher uses data from the online program to inform the next day's lesson.

    Which model of blended learning is it? _____

    Why?

    _____

    _____

    _____

3. Destiny has trouble understanding the teacher's lesson on finding the area of a circle. The teacher directs Destiny and a group of students to work on Chromebooks in class, where Destiny solidifies her understanding of a circle's radius through online practice problems. After thirty minutes, another group of students work online while Destiny and her group work with the teacher. After gaining a better foundation of knowledge and with the aid of her teacher, who had gained a sounder understanding of where Destiny's gaps were, Destiny now grasps how to find the area of a circle.

Which model of blended learning is it? _____

Why?

_____

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_____

4. Naveed has independent work time all Friday morning, during which he chooses how to learn from a variety of online resources that his teachers have compiled about sediment formation. He watches videos and does practice quizzes in class until he feels ready to take an assessment on the topic.

Which model of blended learning is it? _____

Why?

_____

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_____

5. Students work through their online learning playlists during personalized learning time and then complete skills-based projects and collaborative projects facilitated by the teachers in their classes. Watch this video to see how this model looks: www.wiley.com/go/blended17.

Which model of blended learning is it? _____

Why?

_____

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_____

6. Bo's school doesn't offer Chinese, so he takes an online Chinese course in the library with a certified online teacher.

Which model of blended learning is it? _____

Why?

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_____

7. Annie's homeschool co-op meets in person on Mondays and Wednesdays. The other days, the students complete online coursework from home. During the in-person meetings, Annie meets in a small group or individually with the teacher to get help with the online course. She spends the rest of class time either meeting with other students to finish their team project or continuing to work online, depending on her deadlines.

    Which *two* models of blended learning are these? _____

    Why?

    _____

    _____

    _____

8. Marco watches his teacher's recorded calculus lecture on his smartphone as homework. The next day at school, his class spends thirty minutes reviewing the online lecture (if necessary) and completing online practice exercises, as well as thirty minutes completing a group project on Riemann sums.

    Which *two* models of blended learning are these? _____

    Why?

    _____

    _____

    _____

Apply the learning

Visually represent each blended model

The blended-learning models are classified based on how students move among different learning modalities and on their interaction with their teacher. Drawing—or diagramming—the different models can be a helpful way to deepen your understanding of the models. In the space below, diagram each of the seven different models in whatever way helps you visualize how students experience them. Our diagrams of the models are in Appendix 1.2 in Chapter One of *Blended.*

When is each model a fit?

Educators often get hung up trying to decide on the "best" model of blended learning. That question is a dead end. A better way to think about it is to consider the types of circumstances that are well suited to a particular model and the types of circumstances in which a model is a bad fit.

Deepen your understanding of the blended-learning models by thinking about that question and filling in the following tables. Try to think of three or four circumstances for each box.

Station Rotation

Imagine a few circumstances in which this model is a good fit	Imagine a few circumstances in which this model is a poor fit
Example: A third-grade teacher has 30 students and wishes she had a way to do small-group instruction.	*Example:* Zack is capable of working twice as fast as the rest of his class in math, but all of the stations in the rotation are for the same math unit.
2.	2.
3.	3.
4.	4.

Lab Rotation

Imagine a few circumstances in which this model is a good fit	Imagine a few circumstances in which this model is a poor fit
1.	1.
2.	2.
3.	3.
4.	4.

Flipped Classroom

Imagine a few circumstances in which this model is a good fit	Imagine a few circumstances in which this model is a poor fit
1.	1.
2.	2.
3.	3.
4.	4.

Individual Rotation

Imagine a few circumstances in which this model is a good fit	Imagine a few circumstances in which this model is a poor fit
1.	1.
2.	2.
3.	3.
4.	4.

Flex

Imagine a few circumstances in which this model is a good fit	Imagine a few circumstances in which this model is a poor fit
1.	1.
2.	2.
3.	3.
4.	4.

A La Carte

Imagine a few circumstances in which this model is a good fit	Imagine a few circumstances in which this model is a poor fit
1.	1.
2.	2.
3.	3.
4.	4.

Enriched Virtual

Imagine a few circumstances in which this model is a good fit	Imagine a few circumstances in which this model is a poor fit
1.	1.
2.	2.
3.	3.
4.	4.

Draft your plan

Plan a two-hour student experience

For each of the models, write out what a two-hour experience might look for a student working in that model. The time does not need to be contiguous or in one setting. To get you started, here's an example:

Example: Station Rotation for grade 3 math

30 minutes—Student learns individually online on ST Math; when she gets stuck, she talks to her friend next to her for help.

30 minutes—Small-group instruction with teacher and fellow students who are working on the same set of math concepts.

30 minutes—Collaborative small-group project in which the student works with physical manipulatives in a group of two others to solve a series of math problems.

30 minutes—The whole class works in small groups of their choice on "math challenges," an activity that stretches the ability of the students in the class to solve fun, real-world problems.

Now it's your turn.

Station Rotation

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Lab Rotation

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Flipped Classroom

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Individual Rotation

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Flex

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A La Carte

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Enriched Virtual

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APPENDIX

Check for understanding: Is it blended?

1. No. Although collaboration tools enable students to work more efficiently together, they don't manage the delivery of content and instruction; the face-to-face teacher does that. The students are still learning the same thing at the same time. They therefore do not have control over the time, place, path, or pace of their learning, so it is not blended learning.

2. No. Although online resources can be valuable additions to the classroom, in this instance the teacher is not using online content to give students individual control over their learning. The students are still learning the same thing at the same time. They therefore do not have control over the time, place, path, or pace of their learning, so it is not blended learning.

3. Yes. Students use the learning resources to control the path of learning; each can master the standards through different means. They also use it to control the pace of learning; when they are ready, they show they have gained mastery through an assessment. This is blended learning.

4. No. Although video games can be effective in engaging students in their learning, in this instance Minecraft is used as a supplemental tool and is not connected to students' other learning experiences, so it is not blended learning.

5. Yes. Students are controlling the pace of their learning online, and the teacher is able to use this data to target instruction, so the online and offline learning experiences are connected. This is blended learning.

6. Yes. Students have control over the over the path and pace of their learning with guidance from a teacher. This is blended learning.

Check for understanding: Which blended model is it?

1. Flipped Classroom. This is the Flipped Classroom model because the student has control over the time and pace of the content delivery. Class time builds off that content.

2. Lab Rotation. This is the Lab Rotation model because the student rotates on a fixed schedule and/or at the teacher's discretion into a computer lab for the online learning component.

3. Station Rotation. This is the Station Rotation model because the student rotates into different stations within the classroom, and all students go to all stations.

4. Flex. This is the Flex model because the student moves on a flexible, fluid, personalized schedule through the learning.

5. Flex. This is the Flex model because the student moves on a flexible, fluid, personalized schedule through the learning.

6. A La Carte. This is the A La Carte model because the student takes a fully online course to accompany a brick-and-mortar experience.

7. Enriched Virtual and Flex. This is in part an Enriched Virtual model because students are required to meet in person with their face-to-face teacher on Mondays and Wednesdays and then are free to complete the rest of the course remote from campus. The in-person class time is a Flex model because the students move on a flexible, fluid schedule based on their needs.

8. Flipped and Station Rotation. This is a Flipped Classroom model because the students control the time and place where they consume the online lecture. During class time, it's a Station Rotation. The students rotate in thirty-minute increments between online learning and project-based learning.