

CHAPTER 7

Assessment in a Blended Environment

I have a concrete example of what is expected, but also the creative freedom to showcase my skills and pursue my specific passions.

—Eva Oliveri, 11th Grade

WHAT DO WE REALLY MEAN BY ASSESSMENT?

Assessment is any means through which teachers can achieve a greater understanding of where their students are along their learning paths. The multiple forms of assessment are categorized as either formative or summative. Where the former is typically progress-oriented and a low-stakes measurement, the latter is more evaluative and a high-stakes dimension. For example, graphic organizers, exit tickets, skill practice, and project benchmarks are more formative in nature compared to unit tests, papers, or final project outcomes. In a blended learning environment, both formative and summative assessments remain relevant; however, the digital learning tools available make the daunting task of administering frequent formative assessments and collecting data more manageable to teachers. Many of these tools also enable diagnostic assessment to determine the best starting point for learning. Further, these tools create multidimensional and creative lenses for teachers to see evidence of learning and provide feedback on an ongoing basis, even down to the minute!

This chapter

- explores what motivates and drives student learning;
- outlines different forms of assessment data and provides strategies for using data;
- taps into assessment resources from Learning Management Systems (LMS) platforms;
- explores tools for assessing higher order and creative learning in a blended environment;

- outlines different forms of formative assessment;
- provides strategies for planning with formative assessment with feedback in mind; and
- examines some challenges of assessment in a blended learning environment and provides solutions for overcoming them.

The overall data management and assessment process should become progressively more frequent and personalized as schools move along the *Blended Learning Roadmap*. By Phase 3: Expansion, schools are reviewing data and making daily instructional adjustments at the student level.

WHAT DRIVES STUDENT LEARNING?

Before delving into the nitty-gritty of assessment, it's beneficial for school leaders and teachers to discuss what motivates and demotivates students to learn in their school. Taking time to examine the existing culture of motivation in a school, what is working to inspire students and what is in the way helps to form goals for high engagement and motivation at the school level. Digital platforms offer a variety of tools that teachers can use within this loop, some of which align with incentive and reward programs while others are designed to capitalize on creativity and communication motivation. Whether a school is more or less incentive driven, a certain number of both extrinsic and intrinsic motivators are in play. Therefore, the more important question becomes where to use one motivator versus another, and what balance is healthy for the desired culture within the school.

Research suggests extrinsic motivators work best for simple tasks which can be accomplished expediently without much creative thought. However, the opposite is true for creative, complex tasks. In a popular Ted Talk, *The Puzzle of Motivation*, author Daniel Pink makes the case against extrinsic motivators for complex, creative tasks. He cites research that suggests in situations which require complex, divergent thinking, rewards are ineffective and counter-productive motivators, while more intrinsic motivators, such as autonomy, mastery, and purpose are much more effective.



If students are engaged as agents of their own learning, helping to set goals and choose learning experiences alongside their teachers, they can achieve an age-appropriate level of autonomy. Teachers can generate intrinsic motivation by providing students with a work model aligned with their individual learning preferences and talents. As educators have long recognized, students are much more motivated to engage in higher order thinking and working when learning is relevant and purposeful. Projects and experiences that put real-world problems at the forefront and tap into student passion or mastery provide an intrinsic catalyst for the best outcomes.

Educators also recognize other key motivators in place for students that operate on an innate level. The power of social motivation and an authentic audience cannot be overlooked. A quick peek into the world of fan fiction (fiction about characters or settings from an original work of fiction, created by fans of that work rather than by its creator) confirms this observation. Many writers feel not only inspired by their interest in this “fandom” subculture, but they also feel accountable to the writing community. Millions of teenagers are writing at a feverish, impassioned pace (sometimes at the expense of their assigned writing homework). When faced with this evidence of intrinsic motivation, it begs the question: *Why don't we see more of this in the classroom?* In a blended environment, opportunity exists to capitalize on this extracurricular trend, and move the needle on student learning. The same is true for other hobbies, such as gaming and hacking.

Many students trade in emotional currency; they yearn for validation and connection with a teacher who inspires them and believes in them. When technology can be used to bring teachers and students closer together in their rapport, motivation to learn is augmented. In planning for assessment within a blended learning environment, teachers can use their close knowledge of their students to align intrinsically motivating experiences which play off student talents and their sense of purpose. The incorporation of digital learning platforms that provide precise data on student learning complements this knowledge to allow a more comprehensive view of the student.



READING AND RESPONDING TO THE DATA NARRATIVE

In *UnCommon Learning*, Eric Sheneringer discusses the way in which digital learning has enabled the unprecedented capacity for transparent assessment and student engagement. However, he also cautions that high student engagement does not necessarily indicate student learning.

I have observed numerous lessons where students were obviously engaged through the integration of technology, but there was no clear indication that students were learning. Having fun, collaborating, communicating, and being creative are all very important elements that should be embedded elements of pedagogically sound lessons, but we must not lose sight of the importance of the connection to, and evidence of learning. (Sheneringer, 2016, p. 66)

The hard work in personalizing instruction is to thus correlate learning outcomes, instruction, and digital tools on a dynamic continuum in order to enable students to move at their own pace. One way to overcome this challenge and ensure evidence of learning is to leverage student data from adaptive learning software and use it to inform instruction.

Adaptive learning platforms have gained popularity in blended learning classrooms as teachers have come to recognize the value of the data narrative to inform instruction and personalize learning. Not only do such platforms foster student agency by allowing some amount of control over pace and content, they also increase student motivation by enabling awareness of progress toward mastery through an instant feedback loop. Where time in between assessment and feedback used to rely on the ability of the teacher to review rapidly and provide such feedback, students and teachers are now able to track achievement benchmarks instantaneously. Both field experience and research indicate that this decrease in the feedback response time is important to higher achievement. The 2011 study “Timing Matters” by Opitz, Ferdinand, and Mecklinger analyzed the feedback timing factor between two groups, finding performance gain was significantly larger for the group receiving immediate feedback as compared to the group receiving delayed feedback.

Tiffany: The Power of Instant Feedback

@TeachOnTheEdge

When the Redbird Math adaptive software we use launched a new teacher dashboard, I stopped into the math classes to see it in action. In 30 seconds, I was able to witness the power of the data-informed feedback loop to motivate and personalize learning. We had just met with a parent of a student who was struggling in math that morning, and his teacher Lyman Casey shared that the student's biggest obstacle was confidence, that he needed to believe he could do it. When I walked into this student's math class, Lyman was monitoring the “Happening Now” feed which shows minute-by-minute progress. It showed that this student had gotten ten in a row correct and prompted Lyman to “go give him a high five!” Lyman quickly circled over to the student to do exactly that and offer encouragement to keep the good learning going. The student smiled a large smile in return and returned to focus on his problem solving.



LINKS TO LEADERSHIP: TOOLS AND TIME FOR MANAGING DATA

Leaders can help support teachers in interpreting the data narrative by providing time for this task and for teams to share information about students. Tools are hitting the market which enable aggregation and sharing of data through a one-stop data dashboard, such as Ed Elements's *Highlight*, which is a Personalized Learning Platform which has a number of integration partners to support this type of synthesis. However, these tools are dependent on the integration capacity, so before purchasing leaders should examine the fit of the tool with the digital curriculum in use. As data dashboard tools are just now becoming an industry priority, leaders may need to get creative in

the meantime, building a school tool for simple data input into one place to provide the ongoing picture of each learner. Data teams can work together to determine which tools provide the richest assessment data, how to pull it and combine it, and how often to report it.

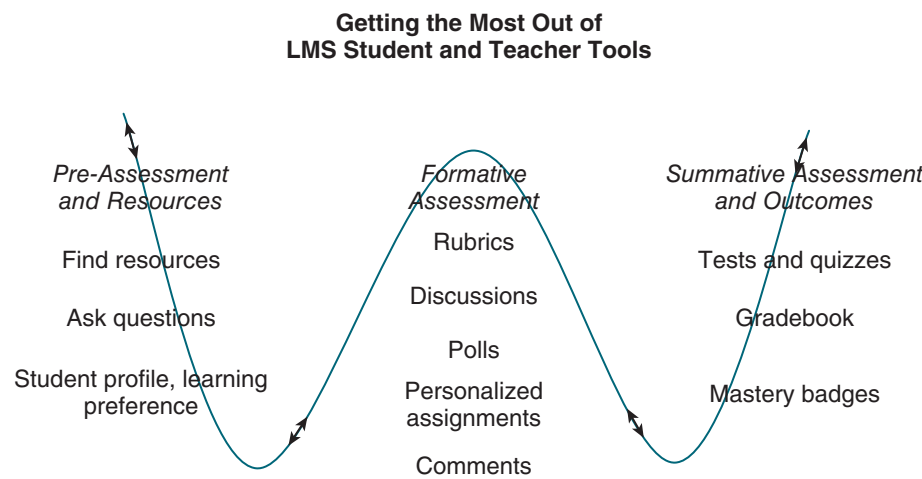


Maximizing the LMS

As discussed in Chapter 5, an LMS, such as Schoology or Google Classroom, can serve as an assessment hub, containing a variety of formative assessment tools and providing student access to performance data on a regular basis. The following are features of an LMS which empower the assessment and feedback loop:

- Polls—Teachers can check for understanding, gauge student interest, or form groups based on poll responses.
- Discussions—Through discussion tools, the whole class or individual groups can share ideas to extend learning. Teachers have the option to enable the grading tool for the discussion or to simply encourage participation.
- Rubrics—While there are great online tools teachers can use to create rubrics like *Rubistar*, it is now possible to do so within the LMS. The rubrics are simple to create and translate to the grade in the gradebook within the LMS directly so students can see their feedback and teacher comments.
- Mastery, Individual, & Small-Group Assignment—Within the LMS, it is possible align assignments to standards for mastery grading and to assign activities to individuals or small groups.
- Comments—When students submit work via the LMS (e.g., the Dropbox feature in *Schoology*), teachers can comment and annotate the documents, providing feedback for students.
- Gradebook—LMS platforms have a gradebook feature which can be set up according to the school's specific grading scale and preferences. It is possible to have this open to parents for viewing constantly, periodically, or never.
- Badges—Badges have become increasingly popular for recognizing achievement, especially in blogging spaces. Students may appreciate the extrinsic reward of a badge, especially if they help to design it and decide which indicators will be used to award it.
- Tests/Quizzes—The LMS provides tools for building tests and quizzes within the platform. It is even possible to enable autograding for objective questions and to manage when and how students can see their results, and/or retake an assessment.

FIGURE 7.1 Getting the Most Assessment Value From Your LMS



Beyond Grades and Data

Project-based and discovery learning play a significant role in a blended learning classroom. These types of assessment allow for a flexible timeline and the type of “rough synchronization” mentioned in Chapter 12 as effectively proven for high levels of online collaboration. Students can have a project to work on over the course of a specified period, and during this time work at their own pace during allocated project time, whether during a rotation experience at a project-based learning (PBL) station, or within an individual playlist schedule. Projects and discovery-based explorations, such as webquests or virtual field trips also serve as complementary assessments to the more data-driven adaptive platforms, and help teachers see the learner in a multidimensional manner. There are several digital tools teachers are using to amp up creativity in their classroom through project-based learning. For example, the “Padagogy Wheel” developed by Allan Carrington illustrates a number of such tools organized by Bloom’s taxonomy and the SAMR (Substitution, Augmentation, Modification, Redefinition) technology integration framework. A live version of this tool is maintained at www.padagogy.net and can help teachers identify the tool aligned with their targeted assessment outcome.

Rubrics are essential tools in a project-based or discussion environment. Whether creating an infographic on *Piktochart*, contributing to a *Padlet* idea board, or writing on a class blog, students need to understand the standards used to measure their work and the expectations of performance around each standard. The creation of so many different rubrics can be a challenge for teachers. Figures 7.2 and 7.3 are examples of rubrics designed to be broad enough to apply to a number of learning experiences, categorized by type.

FIGURE 7.2 Communication and Sharing Rubric

ONLINE BLOGGING/DISCUSSION RUBRIC (FOR USE IN LMS, BLOG, TWITTER BACKCHANNELS, TODAY'S MEET, PADLET, ETC.)				
	(4) EXCEEDS EXPECTATIONS	(3) MEETS EXPECTATIONS	(2) PARTIALLY MEETS EXPECTATIONS	(1) DOES NOT MEET EXPECTATIONS
What I Say	<ul style="list-style-type: none"> is original and shows understanding is supported by textual evidence extends ideas is ___ in length contains extras like media, links, hashtags 	<ul style="list-style-type: none"> is thoughtful and shows understanding is supported by evidence extends ideas is ___ in length 	<ul style="list-style-type: none"> is thoughtful and shows partial understanding would benefit from more evidence partially meets length and/or citation requirement 	<ul style="list-style-type: none"> lacks thought, understanding, or effort is not supported repeats rather than extends ideas does not meet length requirement
How I Say It	<ul style="list-style-type: none"> is elevated in academic tone and respectful gives credit where due is grammatically correct 	<ul style="list-style-type: none"> is appropriate for academic setting and respectful gives credit where due contains up to ___ errors 	<ul style="list-style-type: none"> is appropriate, but too casual in tone may not give credit contains up to ___ errors 	<ul style="list-style-type: none"> is too casual, inappropriate, or disrespectful may not give credit is not indicative of editing effort
How I Engage	<ul style="list-style-type: none"> responds to ___+ users engages in dialogue with peers extends the thoughts of others through good questions and suggestions 	<ul style="list-style-type: none"> responds to ___ users somewhat engages, but may not follow up with comments mainly agrees or disagrees, but extends little 	<ul style="list-style-type: none"> responds to ___ users could have more responses and engage in peer dialogue would benefit from extending the ideas of others further 	<ul style="list-style-type: none"> does not meet required response minimum does not interact with others and extend thoughts

FIGURE 7.3 Creative Project Rubric

ONLINE CREATIVITY TOOL RUBRIC (FOR USE IN SLIDE PRESENTATIONS, MEDIA, INFOGRAPHIC, ETC.)				
	(4) EXCEEDS EXPECTATIONS	(3) MEETS EXPECTATIONS	(2) PARTIALLY MEETS EXPECTATIONS	(1) DOES NOT MEET EXPECTATIONS
Meat <i>What ideas are conveyed?</i>	<ul style="list-style-type: none">• is original and shows understanding• is supported by textual evidence• cites ___ sources• is ___ in length• contains extras like media, links, hashtags	<ul style="list-style-type: none">• is thoughtful and shows understanding• is supported by evidence• cites ___ sources• is ___ in length	<ul style="list-style-type: none">• is thoughtful and shows partial understanding• would benefit from more evidence• partially meets length and/or citation requirement	<ul style="list-style-type: none">• lacks thought, understanding, or effort• is not supported and/or does not properly cite• does not meet length requirement
Magic <i>Is it creatively presented?</i>	<ul style="list-style-type: none">• shows highly creative, “outside the box” thinking• has that “wow” factor	<ul style="list-style-type: none">• shows creative effort• is neat and impressively designed	<ul style="list-style-type: none">• shows some creative effort• would benefit from more effort and attention to design	<ul style="list-style-type: none">• does not show creativity, originality, and/or presentation effort
Mechanics <i>Is it well-edited and academic in tone?</i>	<ul style="list-style-type: none">• is elevated in academic tone• gives credit where due• is grammatically correct	<ul style="list-style-type: none">• is appropriate for academic setting• gives credit where due• contains up to ___ errors	<ul style="list-style-type: none">• is appropriate, but too casual in tone• may not give credit• contains up to ___ errors	<ul style="list-style-type: none">• is too casual, inappropriate• may not give credit• is not indicative of editing effort

Making It Personal

The closer teachers are able to get to a student's passion or optimum learning mode, the greater the opportunity to maximize gains. Providing students with experience using many tools is important to this process as students may not know of a tool unless required to explore it once or twice. However, where it is appropriate to then allow for student choice, the personalization of learning is enhanced. National Board Certified Teacher (NBCT) teacher and author Starr Sackstein encourages teachers to provide variety and choice in formative assessment practices. Starr's most recent book, *Hacking Assessment*, offers a number of creative assessment options for teachers to "go gradeless in a traditional grades school" (Sackstein, 2015, cover).

Teacher Vignette: Starr Sackstein, NBCT @mssackstein

Find What Tool Works for Each Child and Let Them Use It

With technology changing rapidly over the last few years of my teaching career, I have found that different tools engage different learners. Rather than require any one tool for all of my students, I've realized the importance of using a variety to help engage them all.

As an English teacher, I have the luxury of unlimited formative opportunities to engage and assess student learning all of the time, and maximizing that potential is my business. For reticent students, we use Twitter as a backchannel for classroom conversation. Using the class hashtag #WJPSAPlit, students can contribute in meaningful ways in and out of class, asking questions, sharing resources, and engaging with each other.

In addition to Twitter chats and conversations, students write literature blogs in lieu of meaningless reading logs where they read books of their choosing and share reactions about writing, characters, themes, or make connections to their lives. They are taught and encouraged to comment using practiced feedback techniques on each other's blogs to enrich the classroom conversation about the literature we use in class. Blogger has been an easy addition, since the school is already using the Google Educational Suite for everything else.

Google docs has made the writing process more inclusive and meaningful. Students draft in this cloud-based platform and then feedback is provided through comments on their documents by me and other students and then revisions are made. Revisions can be tracked through revision history and students can literally see their drafts transformed when it comes time to reflect. In addition to a number of Google Chrome extensions for Google docs, we've also used Voxer, a free walkie-talkie app

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to continue learning conversations as a dialogue. Students love to work with Voxer, to ask questions, and work through a dilemma with me rather than have to set up an appointment.

In addition to offering multiple ways of engaging students, assessments are always linked to deep reflection. Using Google forms, I'm able to gather data and then speak to students in class about their learning against the standards. For my students who prefer not to write everything out, they can do screencasts of their portfolios, walking me through their learning virtually, or send audio files that address specific learning. There is such a focus on depth of understanding that students are always meaningfully toiling with what they know and can do, and aren't focused on test grades or numbers. Instead, students regard progress through feedback that has been on-going, and specific to each of their needs.

The English classroom is no longer a silo for the solid few who like to read and can analyze, leaving the rest behind. Students show aptitude through movies, storyboards and comics, screencasts, papers, and tableaux. This year I even had a student make an entire movie in Minecraft and do voice-overs to explore their knowledge of A Christmas Carol. The English classroom isn't the only place for blended learning though. My journalism class on newspapers is completely blended as we create and run a student media outlet called WJPSnews.com. The students: organize using Google Sheets, write and provide feedback using Google docs, take pictures using their iPhones, record podcasts and interviews with their phones, and manage a site on Wordpress. A social media manager is responsible for our brand on Facebook, Twitter, and Instagram. All of these places ensure that the school is well represented and the students are learning real-world skills, which is often a result of their choices in the class.

LEADING AND LEARNING WITH FORMATIVE ASSESSMENT

When students enter a new grade level, they often carry one summative data point—their standardized testing data. Thus, this is sometimes the very first point from which learning is designed. However, when testing data precedes formative assessment, teachers understand the limitations of this data and the missed opportunity to understand the learner on a deeper level. Lower stakes and more frequent assessments of learning can illustrate more precise progress in skill development. Further, teachers are using formative assessment to gauge a variety of indicators beyond readiness and learning outcomes, including interest, grit, learning preference, and disposition toward learning. Table 7.1 outlines different types of formative assessments and some digital tools that enable them.

TABLE 7.1 Formative Assessment Types and Tools

BRAINSTORMING	WRITING	PRACTICING	SHARING
<ul style="list-style-type: none">• polls• Bubbl graphic organizers• discussions• pictures, media	<ul style="list-style-type: none">• blogs• shared documents• comments, “suggesting mode”	<ul style="list-style-type: none">• adaptive software• Socrative quizzes• Practice sites	<ul style="list-style-type: none">• discussions• Padlet• social media posts• pictures, media

Planning with formative assessment in mind can be challenging, especially when students are working toward personalized goals. In an environment where there are many differences in the learning experience and path, it is helpful to establish routines and unifying anchors that help students navigate with clear expectations, and help teachers manage within these variables. Formative assessment templates help provide such an anchor. For example, the use of a Google form, which provides a template for students to record very different activities in the same format, can help teachers assess personalized progress in a similar fashion and see all entries in one place (see example at <http://bit.ly/plearninglog1>).

Choice boards, such as the Tic-Tac-Toe style illustrated in Figure 7.4, can be created with links to digital tools where applicable. These are helpful in ensuring balance of learning modes and environment, between online and face-to-face. Another template which can be created for broad use in the blended learning classroom is a rubric for rotation station work, discussion board participation, essays, or projects.

This choice board can be used for a number of different subjects with teachers specifying relevant content or changing out the tasks. Students can record their work by circling or highlighting the three options in a row that they select and then either linking their evidence of learning, or including it on the document.

FIGURE 7.4 Sample Choice Board

TIC-TAC-TOE		
YOU PICK 3 IN A ROW		
MAKE A COPY OF THIS SHARED DOCUMENT TO RECORD YOUR WORK		
Read (offline, learning)	Draw (offline, doing)	Present (offline, demonstrating)
Discuss (offline or online, demonstrating)	Write (offline or online, demonstrating)	Watch (online, learning)
Tinker (offline, doing)	Discover (offline or online learning)	Create (offline or online, doing)



How Can Formative Assessment Foster Student Ownership?

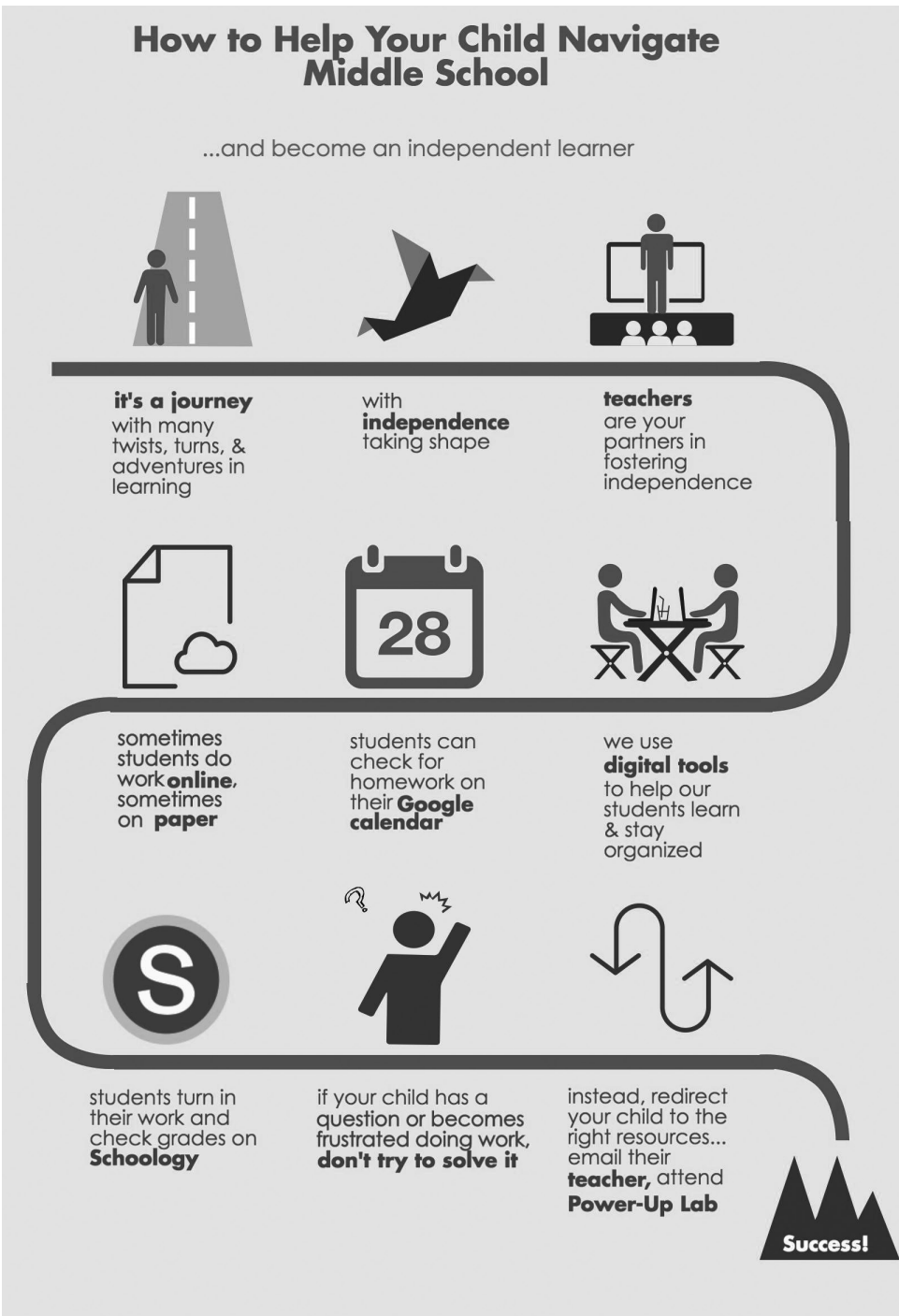
Formative assessment can empower ownership of learning when students are engaged in the process of planning for and reflecting on learning. Digital tools, such as an LMS or adaptive platform, offer more awareness of progress, allowing for more self-assessment and adjustment to meet goals. Other tools empower student agency through voice, with students contributing to and even leading discussions. The 2015 Harvard Business School study of online collaboration points to high effectiveness of peer to peer social learning, which substitutes for expert knowledge.

“When students struggled with a concept, we resisted (even more) the urge to jump in and correct the group, but relied on peers to do so. The results were remarkable (and somewhat humbling if you’re an expert): in more than 90% of cases, questions were precisely and accurately answered by the peer group” (Anand, Hammond, & Narayanan, 2015, p. 1). Sharing planning documents between students and their teachers is another means to engage students as partners and drivers of their own learning. Some schools also cultivate student ownership by putting the student’s voice at the center of conferences more traditionally experienced between parents and teachers in the absence of the student. For example, at The Mandell School in New York, students learn to lead their parent-teacher conferences so as to share their goals and strategies for actualizing them.

FIGURE 7.5 Common Assessment Challenges and Solutions

CHALLENGE	SOLUTION
Synthesizing multiple data sources	Select core tools to provide the majority of the data for analysis.
Tracking assignments	Use the LMS Dropbox or have students link their finished assignments to one shared document. The simple interface of the LMS and ability to grade and comment directly in the assignment field can greatly assist in tracking student work.
Sharing with parents	Communicate which tools will be used, obtain permission, and provide login credentials for those requiring online profiles for students under thirteen. Host a workshop for parents to receive training on digital tools. Having students teach their parents by showing them how they use the tools in class is a way to also strengthen both student agency and partnership. Provide a guide for parents to understand the digital tools and how to support their child (see Figure 7.6).

FIGURE 7.6 Parent Guide to Homework Empowerment in a Blended Environment (made with Piktochart)



What Are the Challenges of Assessment in the Blended Environment?

The several advantages of digital assessment tools are accompanied by some challenges as well. Figure 7.5 (p. 90) outlines common assessment challenges and solutions in a blended learning environment.

WRAPPING IT UP

To get our best measure of how students are progressing, teachers need to see students' best efforts. Students are motivated to put forth their best by different incentives, ranging from extrinsic to intrinsic. Discussed in the opening chapter, the hallmarks of optimal blended learning are aligned with intrinsic motivators: autonomy (student agency); mastery (personalization); purpose (creativity, authentic audience); and peer interaction (connectivity). In a blended environment, this motivation can be augmented by immediate feedback through adaptive data and teacher reinforcement.

In addition to its motivational value, a blended environment offers a variety of tools for formative assessment. Students engage in formative assessments frequently and diversely, not only as a means of measuring progress, but also as learning itself. Whether participating in a discussion, creating something cool, or practicing a skill, students learn collaboratively with peers and teachers, and demonstrate their learning in multiple ways. As teachers and leaders consider the assessment tool kit they will use, it is important to keep core tools at the center so as to help teachers manage data and read the data narrative. Teachers can look to maximize tools like the LMS for its assessment value and build uniform rubrics for personalized pathways.

BOOK STUDY QUESTIONS

1. In what ways do you see students motivated or demotivated to learn and do their best in your school now? Think of ways that you can motivate students through agency, passion, purpose, social interaction, and rewards within your classes. Discuss the balance of intrinsic and extrinsic motivation within your school.
2. What assessment data is currently available within your school, and how are you using the data? What data would be useful to have? Explore adaptive tools which would provide this type of formative data.

3. If your school uses a Learning Management System, what tools are you currently using? Is there potential to maximize assessment and feedback value through increased use of the LMS tools?
4. How do you currently tap into higher order thinking in your classroom? Using a tool like the Padagogy wheel, discuss opportunities to digitize some of these assessments, or to explore new ones using digital tools.
5. Analyze the application of the rubrics for communication and project-based learning to a current assessment in your practice. Modify the rubric as needed to suit your classroom experience.
6. How are students involved in the assessment experience in your current practice? Discuss ways in which students can be further engaged as agents.
7. Which of the assessment challenges outlined in this chapter would be most relevant to your environment? Discuss solutions to these challenges.