
Core Function: Personalized Learning

**Effective Practice**

Blended learning: Mix traditional classroom instruction with online delivery of instruction and content, granting the student a degree of control over time, place, pace, and/or path

Overview: Blended learning combines online learning with face-to-face classroom instruction to allow for personalized and student-centered learning. Teachers' roles will shift away from traditional practices towards providing individualized support as learning designers, mentors, and facilitators. Teachers will require ongoing training and support to implement blended learning, and teachers should be encouraged to work in teams, specializing in various roles. While technology provides personalized learning at scale, it cannot substitute for relationships or socialization; blended learning approaches afford both. Students within blended learning programs can also use digital portfolio technology to represent their learning and provide documentation of their interests, skills, competencies and growth over time.

Evaluate your Practice: What is blended learning and how is it implemented within K-12 education? What is the teacher's role within blended learning environments, and what kinds of training and support are needed for effective implementation? How can technology be used to maximize personalized learning within blended learning instructional settings?

What is blended learning and how is it implemented within K-12 education?

Learner-centered or personalized learning refers to “a teacher’s relationships with students and their families and the use of multiple instructional modes to scaffold each student’s learning and enhance the student’s personal competencies” (Twyman & Redding, 2015, p. 3). The student is actively involved with the teacher in co-constructing their individualized learning pathway, and the location, time, and pace of learning may vary from student to student (Redding, 2016). Blended learning is defined as “a 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, and at least in part at 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” (Christensen, Horn, & Staker, 2013, p. 10). Blended learning is designed to be a “delivery mechanism” for personalized learning (Patrick, Kennedy, & Powell, 2013). While a good deal of research evidence has supported the use of technologies and online instruction to increase student achievement (e.g., Tamin, Bernard, Borokhovski, Abrami, & Schmid, 2011), K-12 blended learning research is limited (Sparks, 2015). However, some evidence suggests that students with access to blended learning models may outperform those experiencing only one type of instruction (Bakia, Shear, Toyama, & Lasseter, 2012; Means, Toyama, Murphy, Bakia, & Jones, 2010; Means, Toyama, Murphy, & Bakia, 2013; Pane, Griffin, McCafrey, & Karam, 2014; Pane, Steiner, Baird, & Hamilton, 2015).

Through their research on blended learning schools and programs, researchers at the Christensen Institute have identified four blended learning models that are most prevalent within K-12 schools: 1) **rotation models**, in which students rotate among learning modalities (e.g., online learning, whole-group class discussion, projects, small-group instruction) on either a fixed schedule or at the teacher’s discretion; 2) **flex models**, in which online learning at the brick-and-mortar campus is the core vehicle for student learning, and students progress along an individualized, custom, and fluid schedule among learning modalities; 3) **a-la-carte models**, in which students take a course entirely

online that is designed to support and/or complement learning experiences at the brick-and-mortar school; and 4) **enriched virtual models**, in which students are required to have face-to-face learning experiences with their teacher but complete their remaining classwork remotely (Clayton Christensen institute, n.d.). Rotation models are more widely used, particularly at the elementary level, and offer the benefits of allowing teachers to work with smaller student groups, making differentiated instruction more cost-effective and efficient (Christensen et al., 2013; Staker, 2014). The Flex, A-La-Carte, and Enriched Virtual Models involve more dramatic changes to traditional school models; these models are more often used at the middle and high school levels, where students presumably may be more capable of self-regulated online learning (Means et al., 2013). They may enable students to better learn at their own pace, engage with teachers more effectively, and recover more dropouts by removing traditional classroom barriers; they also can allow more students to take electives, foreign language, and advanced placement classes which may not be available in their brick-and-mortar school (Staker, 2014).

What is the teacher's role within blended learning environments, and what kinds of training and support are needed for effective implementation?

Blended learning is about the instructional shift towards personalized, student-centered learning rather than the technology in and of itself; educators must reconsider their roles and build students' self-regulated learning in order to foster the student agency and responsibility that is critical for blended learning to be successful (Murphy et al., 2014; Powell et al., 2015). Teachers' roles shift from more traditional curricular and administrative tasks to working with data and providing more individualized support to students (Ames, 2012). Blended learning requires teachers to become "learning designers, mentors, facilitators, tutors, evaluators, and counselors to reach each student in ways never before possible" (Horn & Staker, 2015, p. 11).

It is essential that teachers are properly trained and supported in order to successfully function in their new roles (Horn & Staker, 2015). Horn and Staker recommend that the following training and support be provided for effective blended learning: 1) extend the reach of great teachers by enabling the use of digital technology (e.g., have these teachers lead professional development or online classes); 2) assign teachers specialized responsi-

bilities (e.g., content experts develop curriculum, data experts); 3) allow teachers to teach in teams; 4) award micro-credentials for skills mastery; and 5) grant authority to blended learning teams. In addition, identifying a small core group of teachers to begin blended learning implementation prior to whole-school adoption allows these teachers to be more easily supported as the program unfolds (Darrow, Friend, & Powell, 2013). Instructional teams must also consider common potential implementation barriers such as insufficient connectivity/broadband; providing for a site-based blended learning coordinator/manager may help address these issues (Darrow et al., 2013; Murphy et al., 2014).

How can technology be used to maximize personalized learning within blended learning instructional settings?

Blended learning is the strategic integration of in-person and virtual learning to personalize instruction (The New Teacher Project, 2014). Differentiating instruction for every child is difficult, if not impossible, without the assistance of technology. Technology and online learning adjust automatically to the level of each individual learner and "...provide a simple way for students to take different paths towards a common destination" (Horn & Staker, 2015, p. 10). It is critical to note, however, that technology and data do not substitute for the student's relationship to the teacher and other students within blended learning environments; rather, technology serves as a tool to enhance already proven effective pedagogy (Redding, 2014). Blended learning is a pedagogical approach that combines "the effectiveness and socialization of the classroom with the technology-enhanced active learning possibility of the online environment" (Dziuban, Harman, & Moskal, 2004). Completion of activities, readings, and assessments happens in the online environment, while face-to-face time is preserved for discussion and collaboration between teachers and students and between students and their peers. Not only does this "blended" arrangement produce positive student learning outcomes, but students report appreciation for the more effective face-to-face time and flexibility for learning that blended learning offers (U.S. Department of Education, 2010; Riley et al., 2014). In addition, technology offers the opportunity for students to connect, socialize, and learn from students all over the world who may share their interests and who they would not have encountered without the use of technology (Wellman & Gulia, 1999; Wellman et al., 1996).

Digital portfolios offer additional opportunities for personalized learning within blended instructional environments. Digital portfolios are purposeful collections of work, captured by electronic means, which serve as an exhibit of individual efforts, progress, and achievements (Cramer, 2009). They are used as part of ongoing assessment of learner progress in one or more subject areas, but can also create an authentic and public way for students to demonstrate mastery of basic media skills (Cramer, 2009; Weidner, 1998). Digital portfolios offer several advantages over paper-based approaches, including high rates of active student participation in selecting the media to capture events; enhanced creativity; heightened student interest; motivation and responsibility for learning; and easier access to materials by assessors (Athanases, 1994; Buschmann, 1993; Newhouse, 2015; Vizyak, 1994). Teachers must decide in advance what they wish students to demonstrate within their digital portfolio; in addition, expectations must be clear to both students and assessors, with explicitly defined learning objectives serving as a guide (Stobart & Eggan, 2012).

Indicators to Support the Effective Practice
All teachers receive initial and ongoing training and support in effective use of blended learning methods.
Instructional teams determine which blended learning model is appropriate for the school or individual classroom.
All teachers build students' ability to learn in contexts other than school.
All teachers connect students' out of school learning with the school learning.
Hardware, web browser, and software requirements are specified to students and parents before the use of online instruction outside of school.
All teachers employing blended learning methods make sure that technology and data enhance relationships but do not pretend to substitute for them.
Instructional teams and teachers use fine-grained data to design for each student a learning path tailored to that student's prior learning, personal interests, and aspirations.

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