Chapter 21
Student–Driven Education with Flipped Learning and 20–Time

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ABSTRACT
Educators from a wide-range of K-12 settings have begun implementing a variation of blended instruction commonly referred to as flipped learning. This typically refers to shifting direct instruction online through screencast videos, therefore enabling more authentic and collaborative classroom experiences. Some suggest that not only is the direct instruction flipped, but also the ownership of learning from the teacher to the student. An example of how Flipped Learning opens up opportunities for personalized, inquiry-based learning is the emergence of 20-Time. These 20-Time projects, largely influenced by research on cognition and emerging business world practices, aim to foster creativity and higher-order thinking by tapping into students’ intrinsic motivations. Flipped learning and 20-Time projects are emerging as innovative and practical ways for K-12 educators to develop and implement effective, student-centered blended learning environments.

INTRODUCTION
Emerging Approaches to Blended Instruction

Of the many approaches to blended instruction in K-12 education, the Flipped Learning concept is gaining considerable traction as both effective and practical in nature. Although there are several variations of Flipped Learning, this typically refers to the shifting of direct instruction online by creating instructional videos with the use of screencast technology. This shift frees up a considerable amount of class time, enabling increased opportunities for more authentic and collaborative classroom experiences. When many in the field describe flipped learning, they suggest that this approach also flips the ownership of learning from the teacher to the student.

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Another developing movement in K-12 education is 20-Time, an approach that provides a great example of how Flipped Learning can create opportunities for personalized, inquiry-based instruction. These 20-Time projects, largely influenced by research on motivation, creativity, and cognition, aim to foster higher-order thinking by harnessing students’ intrinsic motivations. Both Flipped Learning and 20-Time projects are emerging as innovative and practical ways for K-12 educators to develop and implement effective, student-centered blended learning environments.

**FLIPPED LEARNING**

**What is Flipped Learning?**

While the concept has been years in the making, many in the education community first heard of the flipped classroom after Salman Khan’s influential TED talk in March of 2011. The founder of Khan Academy, which is currently funded by the Bill and Melinda Gates Foundation, promotes the use of technology to assign video lectures as homework, while doing advanced exercises and activities in class with the teacher’s help (Khan, 2011). The origins of this approach, however, go back further than Kahn’s TED talk and educational programs. Many credit Colorado educators Jonathan Bergmann and Aaron Sams with pioneering the flipped classroom model. They along with several other influential educators web published “The Flipped Class Manifest” to explain their approach and clarify any misconceptions. Although this idea may seem new, its theoretical foundations are anything but. According to the authors, flipped classrooms “actively transfer the responsibility and ownership of learning from the teacher to the students” and develop them into “active learners rather than receptacles of information (Bennett et al., 2011, para. 2).” Educators, theorists, reformers, and others who have a vested interested in education have been advocating such changes for decades.

What Bennett et al. (2012) considered a traditional method where students are “receptacles of information,” education theorist Paulo Freire referred to as the banking model. In his influential publication, Pedagogy of the Oppressed, Freire (2003) laid out his blistering critique of a typical education:

> The teacher[s]… task is to “fill” the students with the contents of his narration -- contents which are detached from reality, disconnected from the totality that engendered them and could give them significance… it turns [students] into ‘containers,’ into ‘receptacles’ to be ‘filled’ by the teachers… Education thus becomes an act of depositing, in which the students are the depositories and the teacher is the depositor… This is the ‘banking’ concept of education, in which the scope of action allowed to the students extends only as far as receiving, filing, and storing the deposits. (p. 72-73).

Similar critiques had been made long before Freire, such as those made by theorist John Dewey in his seminal *Democracy & Education*. One common thread emerges amongst these critiques. They all advocate a shift towards an education that empowers and engages students. Proponents of the flipped class approach claim that it leverages technology in ways that help educators meet this goal, but how? Bennett et. al. suggest that modern technologies, such as instructional videos created with screencast software, can “time-shift direct instruction where appropriate (Bennett et al., 2011, para. 3).” A common misconception is that flipped classrooms are simply those where teachers create and assign video lectures for homework. Although delivery of direct instruction through these videos is valuable, it is...