ABSTRACT

The flipped classroom method has the potential to transform schools by promising an innovative instructional design that merges a student-centered approach with a technology-assisted application. The method has attracted attention over the past 10 years. The Ministry of Education of the People’s Republic of China has supported the inclusion of technology, digital learning environments, and new instructional models as an important aspect of educational reform. The chapter begins with a background of the flipped classroom, including origin, history, and usage. Next there is a discussion of the design models that have been addressed in the research field, and a comparison of instructional practices in different regions of China. Several empirical studies that reflect the effectiveness of the flipped classroom are examined as well. This chapter sheds light on the benefits and challenges of the flipped classroom in Chinese school systems. Future research directions are articulated for those who may be interested in the use of the flipped classroom for educational purposes.

BACKGROUND

Conceptualized initially in a small, private university in Ohio in 1995 (Baker, 2000), the flipped classroom method has evolved into a technology-reliant strategy in which students receive direct instruction via digital tools outside the classroom and then participate in activities with teachers and peers inside the classroom. In the past decade, this flipped classroom model has promised to transform schools all over the world, thanks to the advancement of educational technologies and greater access to the internet.

The flipped classroom has drawn increasing attention in current research studies and has been touted as a silver bullet strategy among advocates in the United States. The idea has been promoted on American television news programs, in a variety of magazines, and on countless blogs and websites as

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a ground-breaking method to alter the way students learn and teachers teach (Moran & Young, 2015). The essential ingredient in this new recipe for learning is Technology with a capital “T.” Although the internet was not in most American households when the idea was born, Baker’s (2000) students had the ability to view his PowerPoint slides on the unique, university-wide internet site, which allowed them to access content outside the classroom, outside normal school hours. Soon, other American university professors with similar technology access began adopting the idea (Lage & Platt, 2000; Lage, Platt, & Treglia, 2000).

As the internet exploded in the 21st Century, the use of technology as a delivery vehicle for instruction began to gain a foothold in secondary classrooms in the United States (Bergmann & Sams, 2012a; Bergmann & Sams, 2012b). In 2016, about 77% of Americans in 2016 owned a smartphone, and 73% said they had broadband service at home – an increase of 6 percentage points from year before, according to the Pew Research Center. Greater access to the internet and internet-enabled devices has created a call among stakeholders within and outside education for teachers to capitalize on the affordances of digital technology for education, even if it meant introducing technology without adequate professional development (Spries, Hervey, & Watson, 2013).

Indeed, there has been a greater increase in the number of teachers trying the flipped classroom model, according to the Flipped Learning Network, a web-based resource center on the flipped classroom (www.flippedlearning.org). Yet much of this effort has been without the benefit of professional development or instruction on how to flip (Miles & Foggett, 2016). According to some researchers, this has created a blind-leading-the-blind mentality in the flipped classroom, with students feeling as if they are required to “teach themselves,” and teachers feeling as if they don’t know how to implement a flipped classroom (Miles & Foggett, 2016). Some teachers have sought support from courses or Massive Open Online Courses (MOOCs) to help implement the flipped method, while others have resorted to instructing students to watch videos freely available through Khan Academy (KA) (https://www.khanacademy.org). Cargile and Harkness (2014) found that teachers who used KA videos and website materials exclusively for flipped instruction were not using them as founder Sal Khan intended (as supportive elements in the curriculum), but were allowing the videos to supplant instruction – not supplement it. This tension between advocates for the method and those suspicious of its benefits has dogged the flipped classroom, even as demands for teachers to implement it have increased (Snelling, Karanicolas, & Winning, 2016).

Historically, many school districts have encouraged their teachers to integrate technology and other innovations into their teaching, but provided little support (Young & Bush, 2004). Spires et al. (2013) wrote “the pressure on teachers to embrace new literacies and to integrate effectively technology in the classroom is steadily increasing” (p. 34). The flipped method possibly is no different. Some teachers view the method with skepticism and point to the labor-intensive effort of creating videos and online lessons (Berrett, 2012). In addition, some teachers fear embarrassment in acknowledging they know very little about technology (Fabry & Higgs, 1997), a fact they likely do not want to admit to eager administrators. Teachers may be resisting the pressure to implement the flip – or technology in general – because of the “disconnect” between the glamour of using the method and the realities of constructing it (Young & Bush, 2004). Yet, others have found the technology aspects part of the fun and readily accessible through free programs like Weebly, Edmodo, and Voicethread (Moore, Gilett, & Steele, 2014). Teachers who have mastered the flip say it allows them to spend more individual time with students and more effectively address the curriculum (Fulton, 2012). They say it allows for a classroom centered on inquiry and problem-based learning (Bergmann & Sams, 2012a), and it helps eliminate the constant homework struggle (Strayer, 2007) by moving much of the traditional “homework” out of the home and