



## Full length article

# Implementing flipped classroom using digital media: A comparison of two demographically different groups perceptions



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## ABSTRACT

Flipped classroom is a relatively new model in education that primarily focuses on learner-centered instructions. In other words, the model allows both management and teachers to build a more active and dynamic learning environment on the campus. The current paper tries to document the implementation of the flipped classroom model in two big data courses. Here, the course contents have been curated from a couple of websites with different contents including videos and short books as well as reports. The mixed-method approach was applied while analyzing the student perceptions in demographically two different groups. It was found that students of both groups responded positively to the flipped classroom, with each focusing on their specific goals. Consequently, the first group focused on the academic achievement whereas the second group with managerial jobs focused on solving problems in their workplaces. Students of both groups, although preferred TED talks and documentaries, they were opposed to university-like videos and O'Reilly short books and reports. Meanwhile, the use of English language contents turned out to be both a challenge and an opportunity for students.

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## 1. Introduction

Over the past few decades, there has been a surge of new innovations and improvements in the field of Information Technology. The advent of the internet, cheaper and more accessible storage, increasing computing power, new devices such as smartphones, tablets and other mobile apparatus are some of the breakthroughs that helped boost only new digital experience but guided the new generation to change their daily lives and learning habits.

In the present era, there are wider emphases on environments that support multitasking and augment social aspects of learning. However, evidences show that millennial students (those born between 1982 and 2002) have been relying on technologies more than ever while at the same time demonstrating an ever-decreased tolerance for lecture-style presentations. In other words, since students have completely different needs and expectations from an educational system, it unsurprisingly necessitates a change in our thinking style. In that given scenario, the aforementioned tools allow us to think about education from scratch and redesign the

built-in concepts we used to live with. In other words, this idea necessitated a paradigm shift from the traditional teaching and learning to the active learning strategies and help students in better engaging with their learning environment (Roehl, Reddy, & Shannon, 2013).

## 2. Background of the study

### 2.1. Background of flipped classroom

The flipped classroom is a new instructional model that has been widely used in recent years. The simplest definition for this model is: what has been traditionally done during class time i.e. class presentations is shifted to home activities and what has been traditionally done at home i.e. homework and projects are transferred to as class activities. Accordingly, students watch educational videos at home and do their homework during the class hours with the help of classmates and under the supervision of instructors (Chen, Wang, Kinshuk, & Chen, 2014; Lage, Platt, & Treglia, 2000).

The flipped classroom was initiated by two high school teachers- Jonathan Bergmann and Aaron Sams in 2007. The duo recorded the lectures to help absent students keep up with their classmates. For that matter, they also used software and PowerPoint to record the lessons and made them accessible via YouTube. Soon after, they

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