

7 Things K-12 Educators should Know about Flipped Classrooms

Scenario

John is a 6th grade middle school student who lives in a one parent home with his mother and is studying division of fractions by fractions. In the past, John would bring his mathematics homework home and would forget what the instructor said during the class. John would refer to his notes that he took in class on fractions but could not make sense of what was written down on his paper, which led to frustration. John's mother is unable to help him since it's been 30 years since she had a mathematics class and she has forgotten most of the main concepts of math.

Now, John is involved with the flipped classroom model for his mathematics class. He goes home every weeknight to view a video or videos explaining the division of fractions for a total of 15-20 minutes. During the videos, he takes notes in regards to the lessons in the videos or takes a small quiz. John also writes down a higher order question on what he does not understand on a concept that he cannot answer.

The next day, when John arrives in his mathematics classroom, all the students ask the teacher their questions in regards to the videos on the division of fractions. The teacher answers all questions and clears up misconceptions. Next John and his peers take out practice problems, and with the teacher, work through the problems together from the content viewed last night. Finally, John and his classmates work on the rest of the problems in the classroom. If John gets stuck on a problem within the classroom, his peers help him through the process of solving it, and his teacher is there to guide him.

Being involved in a flipped classroom has helped John clarify mathematical concepts as he can view the videos at any time and at his own pace. Also, John's teacher is available to help him on mathematical problems during class time every day.

1. What is it?

The flipped classroom is a pedagogical strategy that uses a **blended learning approach** where blended learning **incorporates face to face instruction with instruction facilitated with technology**. It is a non- traditional classroom model where students utilize technology to watch videos or auditory files at home or elsewhere and then work on projects, problems, discussions, or key activities in the classroom while receiving face-to-face interaction with peers and the teacher. The direct instruction **or lecture is assigned for homework and what used to be homework is completed in the classroom**. In addition, the term flipping includes: direct instruction is flipped from being teacher focused to student focus where the teacher moves from the "sage on the stage" to the "guide on the side," and class-time is flipped from being lower order of thinking skills to higher order thinking skills such as what is listed on the Bloom's Taxonomy Chart.

2. How does it work?

Students view lectures at home or other locations, and work on homework at school.

Teachers decide what they want their students to know, be able to do, and master in order to create learning objectives. Teachers use resources such as videos or audio files, created by themselves or others, that will be accessible to students. Students view direct instruction of their lesson at home or by means of a video or audio file and replay them when needed. Spot check on-line quizzes, journal writing, or teacher created forms can be used to accompany the videos for formative assessment. When students are in the classroom, they engage in discussion, ask higher order questions, and solve problems based on the lesson viewed the night before. Peers help each other first with questions and problems and then the teacher helps. The teacher can spend 100% of their time to guide, monitor, and help students to find various solutions to their problems or define content. Teachers can learn about flipping lessons by joining a network such as <http://flippedlearning.org>.

The flipped classroom uses 21st Century Skills: engagement, inquiry, collaboration, critical thinking, communication, problem solving, learning by digital means, student-centered learning, and differentiation within the classroom.

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3. Who's doing it?

Higher education have been using the flipped classroom model with success, and this **pedagogical strategy is now moving into K-12 education and becoming one of the popular methods used within the classroom.** In addition, museums are flipping their exhibits for K-12 classrooms. Many schools in K-12 education use videos from Khan Academy to help flip the classroom such as Hamilton Middle School's 8th grade students, who fill out checklist sheets during class to check their progress, and have made academic gains. In addition, Durant Road Middle School, in North Carolina, flipped their 8th grade math class and has made improvements on academics with higher test scores (Sawyer, 2013). And, eighth grade English teacher, Nichole Carter from Neil Armstrong Middle School, flipped her classrooms, and no longer reviews books in class, as that process has been replaced by videos at home. Now Carter is seeing her students "learn by doing" by "creating essay ideas for their book review on H. G. Wells "War of the Worlds" and 78% of her students favor the flipped model over the traditional (Bloom, 2012)

4. Why is it significant?

Traditional classrooms have the following pattern: lecture, homework, lecture, homework and teachers were spending a small percentage of time working hands-on with the students. With the flipped classroom model, **teachers can spend 100% of their time with the students.** Students who are absent, sick, and have no help at home will not miss main teaching points. They will be able to view the videos or audio files at home, and be able to come to school prepared. Students are able to pause, repeat, and review the videos at any time. In the traditional setting, after a few homework assignments, students would take an exam and no matter what the students scored, the teacher would move on to the next topic. With the flipped learning model, students and teachers are able to close the gaps in the learning process by asking questions until mastery is achieved within the classroom. Teachers are able to work one on one with students and in small groups to help master concepts.

5. What are the downsides?

Collecting or creating resources such as videos and audio podcasts, and assessments for the flipped classroom **is a time consuming process.** A learning curve also exists for teachers in creating the videos or audio files. Some educators do not have access to technologies such as the internet and computers for this model. And, just like the traditional classroom, many students still will not complete their videos at home and will come to school prepared due to lack of motivation. In order to combat incomplete viewing of videos, computers can be accessible in the classroom for students. Also when viewing the videos at home, questions cannot be immediately answered, however this is remedied by asking the questions to the teacher the next day.

6. Where is it going?

It's still too early to tell if the flipped classroom model is just another educational fad as more K-12 schools are making the paradigm shift to this model. **This model is easily integrated in the math and science classes.** It would be best for the teacher to decide what lessons to flip, and to start small by implementing just a few lessons in the subject before flipping the entire subject. Overtime more videos will exist to flip other subjects besides math and science such as socials studies, art, and english language arts. As stated by Troy Cockrum, and Indianapolis middle school teacher, "educators are always presented with the next new thing, but you can tune a lot of 'em out really fast. People aren't turning this out. When people ask about it, people keep asking — -it's like they can't find enough information" (Stokes, 2012).

7. What are the implications for teaching and learning?

Teachers turn control over to the students in the teaching and learning process where teachers become the "guide on the side." Students are in an environment where they take control of their learning and mastery of the content being presented by engaging, communicating, collaborating, and asking questions. This model incorporates direct instruction with constructivist leaning and incorporates 21st century skills such as collaboration, problem solving, and incorporating technologies.

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References

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Read All About It!

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