The Flipped Classroom
Fact or Fad?

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• *Flipping the classroom* is not a “magic bullet,” it is a great first step in reframing the role of the teacher in the classroom.
• It helps to move classroom culture towards student construction of knowledge (*constructivist learning theory*) rather than the teacher having to tell the knowledge to students.
To be better EDUCators...

...we must first be better LEARNers.

Tom Whitby
Many changes have occurred in education over the past 25 years. Entering the world of education in the 21st Century is vastly different than education was even as recently as the 1980s or 1990s!

"Traditional transmission of knowledge from teacher to student is no longer sufficient for an educated citizenry" "Assessing knowledge gains will no longer be sufficient. Outcomes in critical thinking, cultural understanding, empathy, citizenship, and social responsibility will also be important." (Austin, 1996)
The flipped classroom is a manifestation of adaptive learning theories.

Adaptive learning, n.: A teaching method premised on the idea that the curriculum should adapt to each user.
The most obvious is the increase in information technology and computer use, but there are other significant changes as well. The student population is changing and the collegiate experience has become more diverse. This is summarized in the following sections.

- Changing nature of students
- Changing nature of the collegiate experience
- Changing understanding of how students learn
- Changing nature of teaching
- Changing nature of outcomes assessment
- (ACPA – Higher Education Trends for the Next Century)
- Increasing diversity in age, gender, station in life, race/ethnicity, sexual orientation, learning and physical ability, and career retooling
- "Such heterogeneity requires educational communities to be open to difference, as well as new and varied pedagogies and assumptions about levels of preparation, learning styles, and available time for study"
1) Need to Know
The flipped classroom must innovative. It must be paired with transparent and/or embedded reason to know the content. Adult learners will be engaged when the content is made relevant.

2) Engaging Models
Examples include project-based learning (PBL), game-based learning (GBL), Understanding by Design (UbD), or authentic literacy, find an effective model to institute in your classroom.

3) Technology
Computer-based simulations, mind maps, e-folios, lecture-capture (pre-recorded or capture of live presentations).

4) Reflection
Build in reflective activities to have students think about what they learned, how it will help them and reinforce its relevance.
Video Examples

- **Flipped Classroom Introduction**
  - http://www.youtube.com/watch?v=7oJnlu9XLG1
- **The Flipped Classroom as a Vehicle to the Future**
  - http://www.youtube.com/watch?v=ZpHfTO8SW7U
- **Teaching for Tomorrow: Flipped Learning**
  - http://www.youtube.com/watch?v=4a7NbUir_iQ
- **5 Things I Wish I Knew When I Flipped My Class**
- **The Flipped Classroom is not...**
  - http://www.youtube.com/watch?v=hGs6
Who are our students?

- **The Baby Boomers** (born between 1946 and 1964) growing up in a time of economic expansion and prosperity, major social movements, and national optimism. Core values include optimism, team orientation, personal gratification, health and wellness, personal growth, work, and involvement.

- **Generation X** (born between 1965-1977) witnessed corporate layoffs and corruption, inflation, the energy crisis, and nuclear proliferation. Core values include diversity, thinking globally, balance, techno-literacy, fun, informality, self-reliance, and pragmatism.

- **Generation Y** (born 1977 through 2000) grew up being defined by 9/11, bombings in Oklahoma City and school shooting. They were raised in a child-focused environment. Core values include optimism, civic duty, confidence, achievement, sociability, morality, street smarts, diversity.

- **Generation Z** (Millennials) (born early 1990s to present) grew up with the internet, cell phones, I-Pads and I-Pods. They get information fast and expect it quickly. They often are seen as impatient and are technically savvy. Core values are a sense of social justice, philanthropy and maturity that comes with growing up in an economically depressed time.
- Why I Flipped My Classroom
  [http://www.youtube.com/watch?v=9aGuLuipTwg](http://www.youtube.com/watch?v=9aGuLuipTwg)
- The Flipped Classroom is Born
  [http://www.youtube.com/watch?v=v-y9vR7YTak](http://www.youtube.com/watch?v=v-y9vR7YTak)
- 10 Reasons Blended Learning Isn’t Going Away
- Five Best Practices for the Flipped Classroom
Need more time to cover....

- Challenging concepts or content on a deeper level?
- Monitor students dissecting a case-study that involves critical thinking, clinical judgment and best practices decision making or interventions?
Passive

Read

Hear

Seeing (a picture)

Watching a Movie
Looking at Exhibits
Watching a demonstration

Participating in a Discussion
Giving a Talk

Active

Doing a Dramatic Presentation
Simulating a Real Experience
Doing the real thing
Cone of Learning (Edgar Dale)

After 2 weeks we tend to remember...

10% of what we READ
20% of what we HEAR
30% of what we SEE
50% of what we HEAR and SEE
70% of what we SAY
90% of what we both SAY and DO

Reading
Hearing Words
Looking at Pictures
Watching a Movie
Looking at an Exhibit
Watching a Demonstration
Seeing it Done on Location
Participating in a Discussion
Giving a Talk
Doing a Dramatic Presentation
Simulating the Real Experience
Doing the Real Thing

BEWARE A PARADIGM SHIFT

- The **Flipped Classroom** is one of the most talked about movements in education, perhaps surpassed only by the mobile devices (iPad / tablets / smartphones) and online learning.
The notion of a **flipped classroom** draws on such concepts as active learning, student engagement, learner-centeredness, hybrid or model course design, and lecture capture.
The flipped classroom turns traditional education on its head. Many educators are experimenting with the idea of a flipped classroom model. So what is it and why is everyone talking about it?

What is the flipped classroom?

The flipped classroom inverts traditional teaching methods, delivering instruction online outside of class and moving “homework” into the classroom.
WHAT A FLIPPED CLASSROOM MODEL DOES

- Students watch lectures at home at their own pace, communicating with peers and teachers via online discussions.
- Concept engagement takes place in the classroom with the help of the instructor.
A THEORETICAL FRAMEWORK

Educational technology and activity learning are two key components of the flipped classroom model. They both influence student learning environments in fundamental ways.
HOW IT CAME TO BE

Many factors influenced the creation and adoption of the flipped classroom model. However, two specific innovators played a key role.

ITS INFANCY

2007: Teachers Jonathan Bergman and Aaron Sams at Woodland Park High School in Woodland Park, CO, discovered software to record PowerPoint presentations.

They recorded and posted their live lectures online for students who missed class.

Bergman and Sams were asked to speak to teachers around the country about their methods.

The online lectures started spreading.

Teachers began using online videos and video podcasts to teach students outside class, reserving class time for collaborative work and concept mastery exercises.
WHAT'S DRIVING IT?

Two key factors are driving increased adoption of the flipped classroom model.

POOR LEARNING OUTCOMES

The traditional one-size-fits-all model of education often results in limited concept engagement and severe consequences.

Only 69% of students who start high school finish four years later.

An average of 7,200 students DROP OUT of high school each day, totalling 1.3 million a year.

PREVALENCE OF ONLINE VIDEO

The availability of online video and increasing student access to technology has paved the way for flipped classroom models.
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Adults Who Have Viewed an Online Educational Video

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Internet Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>15% of Internet Users</td>
</tr>
<tr>
<td>2010</td>
<td>30% of Internet Users</td>
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</tbody>
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+2,400 online video lessons in Khan Academy

covering topics from arithmetic to physics, finance to history

WHAT IT LOOKS LIKE

Many schools and classrooms have adopted the flipped classroom model. Here, we look at Clintondale High School near Detroit, which has employed the flipped classroom model to great success.
HOW IT WORKED

• Teachers created three videos a week.
• Students watched the 5- to 7-minute videos at home, or in school if they didn’t have Internet access at home.
• Class time was spent doing labs or interactive activities to illustrate concepts.

Students receive instant feedback. Teachers have more time to help students and explain difficult concepts.

Students don’t get as frustrated. Before, many students wouldn’t complete homework if they got frustrated with it. Working on problems in class minimizes this problem.

Teachers revisit concepts students don’t understand. After students watch lessons, they write down any questions they have. Teachers review those questions with students individually.

Teachers support students in class. Students who might not have technology or parents to help them outside of school now have teachers guiding them in class.

“It’s about changing instructional models so the students can receive more instructional support in the classroom from the experts that Clintondale has on staff.”

— Bruce Umpstead, Michigan Office of Education Technology & Data Coordination
THE RESULTS

BEFORE THE FLIP

+50% of freshmen failed English
44% of freshmen failed math

AFTER THE FLIP

19% of freshmen failed English
13% of freshmen failed math

736 discipline cases in one semester
249 discipline cases in one semester

Sources: Jeremy F. Strayer, Ohio State University | Flipped Class Conference 2011 | Telegraph.co.uk | Blendedclassroom.blogspot.com | Khan Academy | Education Week | Conserve Magazine
A problem that many new adopters have with the “flipped classroom” concept is

- What to do with a void during in-class time?

- How this could be a potential problem of the reversed of flipped learning method.

- Most teachers were students of traditional in-class lecture-based techniques and continue to teach using these old, rigid methods out of comfort, “tried & true” or a sense of control for student management.

- Sage on the Stage to Guide on the Side
When a “flipped” newbie decides to switch over to a student-based, project learning style during class time, they sometimes become confused.

- This style pushes teachers to incorporate creative projects into their material. Some teachers are so used to providing most or all information to their students for the entire class, stumble during class time (it inadvertently contributes to student dependency & passiveness.

- The newbie has trouble filling up this time getting students to work in groups or engaging activities during the transition.
During in-class sessions, faculty functions as coaches, facilitators or advisors, encouraging students in individual inquiry, engaging activities, support and collaborative effort.

So.....
• Students are able to review and replay the instructional segment as many times as necessary. A variety of strategies and materials can be provided to meet the various student needs. This provides for those students who wish to move through the material quickly. While those who need to take their time and process are also able to.

• It allows for greater differentiation in meeting student needs.

• Students have greater control over their learning
Why Flip Classroom Instruction?

- Student Benefits
- Differentiation
- Student-centered
- Support
- Review and Remediation
IMPROVE student learning and teacher satisfaction in one Flip of the Classroom

"The biggest and best change in my teaching practice in 25 years."

"Game-changing! I can meet more students' needs more often."
What do teachers who’ve flipped their classrooms have to report?

TeacherView™ Survey on Flipped Classrooms Reveals...

(Preliminary data as of 6/21/12, with responses from 453 flipped educators)

Impact on Teachers

**Job Satisfaction**
- Improved: 88%
- Improved significantly: 46%

**Online Instruction**
- 43% have put 50% or more of their instruction online
- 28% are reporting more than 75% online

99% would use it again next year

“I will never go back to traditional teaching methods.”

“It’s differentiation on steroids!”
Impact on Students

Standardized Test Scores: 67%

Student Attitudes: 80%

Teachers reported benefits for all students, and in particular AP and Special Needs students.

"I have taught math for 10 years, and have never seen my students work this hard or learn this much."

"Flipping my classroom has dramatically improved the number and quality of interactions with individual students."
Who’s Flipping?

85%  91%
7+ years of teaching  Have used the flipped model less than 2 years

SCIENCE 46%

ELA 12%

MATH 32%

95%  50%
of respondents are secondary school teachers  from suburban schools

SUBJECTS MOST FREQUENTLY “FLIPPED”

25% urban
25% rural

"The more I flip, the more I want to flip!"

Contribute your voice to this ongoing survey at http://www.classroomwindow.com/review-a-product
The coursecast, video lecture or lecture capture is often seen as the key ingredient in the flipped approach, such 24/7 available lectures being either created by faculty or publisher and posted online (Eagle Online, EduTube or Learning Web) or selected from an online repository.
A growing number of institutions are moving away from the traditional instructor-focused teaching model of face-to-face lecture to a new student-centric/learner-centered approach that favors a more personalized, collaborative, anytime-anywhere—access to content from any device, a new learning experience.
The Flipped Classroom IS:

- A means to INCREASE interaction and personalized **contact time** between students and teachers.
- An environment where students take **responsibility for their own learning**.
- A classroom where the teacher is not the "sage on the stage", but the "guide on the side".
- A **blending** of direct instruction with constructivist learning theories.
- A classroom where students who are **absent** due to illness, circumstances or extra-curricular activities such as athletics or field-trips, don't get left behind.
- A class where content is permanently **archived** for review, remediation or refinement.
- A class where all students are **engaged** in their learning.
- A place where all students can get a **personalized** education.
The Flipped Classroom is NOT:

- A synonym for online videos. When most people hear about the flipped class all they think about are the videos. It is the interaction and the meaningful learning activities that occur during the face-to-face time that is most important.

- About replacing teachers with videos.

- A completely online or DE course.

- Students working without structure.

- Students spending the entire class staring at a computer screen.

- Students working in isolation.
**Flipped VS Traditional**

**Flipped**
- Teacher instructs lesson at home (video / podcast / book/ website)
- Students work in class.
  - Deeper understanding of concepts, applications, and connections to content are made.
  - Students receive support as needed.

**Traditional**
- Teacher instructs
- Students take notes
- Students follow guided instruction
- Teacher gives assessment
- Students have homework
The 21st Century Instructor’s Affirmation

I believe my role is a tour guide of learning possibilities - providing students with a menu of possibilities to learn the content.
Resources

- The Flipped Classroom Infographics
  http://www.knewton.com/flipped-classroom/

- Teachers use technology to flip classrooms
  http://www.techsmith.com/flipped-classroom.html

- Educause: 7 Things You Should Know About Flipped Classroom

- The Flipped-Classroom; Pro & Con
  http://www.edutopia.org/blog/flipped-classroom-pro-and-con-mary-beth-hertz

- Top EdTech Trends for 2012: The Flipped Classroom

- Center for Digital Education

- Flipped Classrooms: Turing Learning Upside down
trust@concorde.edu