

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
الْحَمْدُ لِلَّهِ الَّذِي
خَلَقَ السَّمَوَاتِ وَالْأَرْضَ
وَالَّذِي يُضَوِّبُ الْمَوْتَى
إِنَّ رَبَّهُ لَسَدِيدٌ
إِلَىٰ عَرْشِهِ الرَّحِيمُ
الَّذِي يُرْسِلُ الرِّيَّاحَ
تُضَوِّبُ السَّحَابَ الْمَوْبِقَ
فَيَأْتِي السَّمَاءَ بِسُحُبٍ
مَوْبِقَةٍ فَأَنزَلُ مِنْهَا
مَاءً بَارِكًا فَخَلَقَ مِنْ
تَحْتِهَا جِبَالًا بَالِيغَةً
إِلَىٰ السَّمَاءِ لِيُنزِلَ
مِنْهَا مَاءً بَارِكًا فَخَلَقَ
مِنْ تَحْتِهَا نَهْرًا جَارِيًّا
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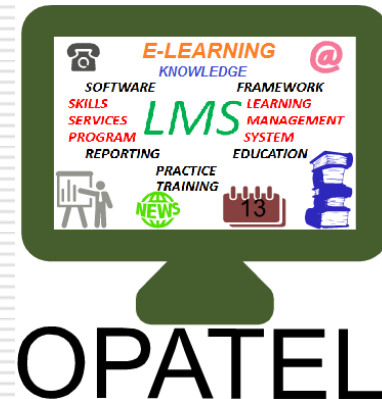
Flipped classroom

A new pedagogical Approach



Center of Excellence for e-Learning
in Medical Education

Virtual School - Tehran University of Medical Sciences



OPATEL Workshop, Tehran, 2-4 December



Co-funded by the
Erasmus+ Programme
of the European Union

Aeen Mohammadi MD MPH PhD

Department of e-Learning in Medical Education

Virtual School

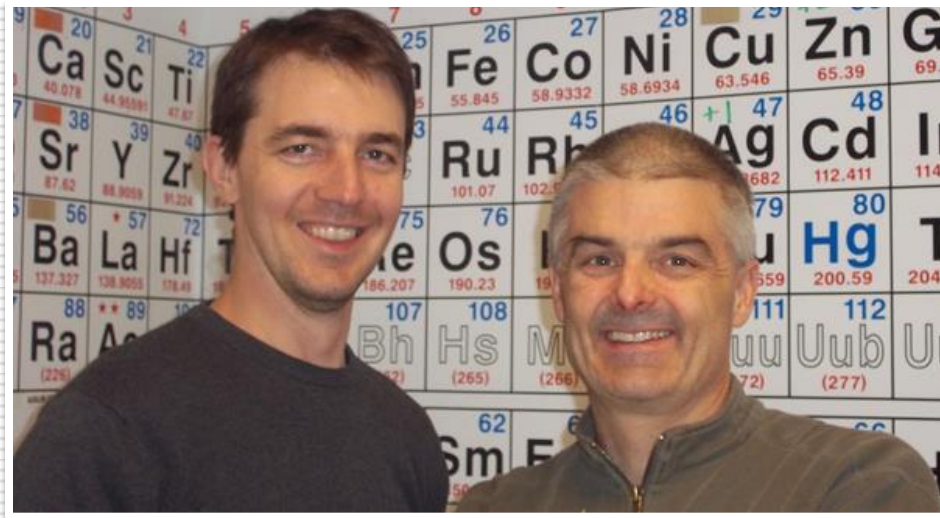
Tehran University of Medical Sciences

&

Vice chancellor of Infrastructure

Virtual University of Medical Sciences

❖ **Johnathan Bergmann and Aaron Sams (2007), science teachers at Woodland Park High School in Colorado, are considered the originators of the Flipped classroom.**



❖ Just since January 2012, the number of active members on the **Flipped Learning Network** site has grown from 2,500 to more than 15,000.



The screenshot shows the homepage of the Flipped Learning Network. At the top, there is a navigation bar with a 'HOME' button and a 'DONATE' button. Below this is a large banner featuring the 'flipped learning network' logo on the left and a photograph of three students looking at a laptop on the right. A secondary navigation bar contains buttons for 'HOME', 'DEFINITION', 'ABOUT', 'RESOURCES', 'EVENTS', 'SUPPORT', and 'CALENDAR'. The main content area is divided into two columns. The left column contains a mission statement: 'The mission of the Flipped Learning Network™ is to provide educators with the knowledge, skills, and resources to successfully implement Flipped Learning.' Below this is a link to 'Definition of Flipped Learning and Four Pillars of F-L-I-P' and a paragraph explaining that this definition was released on March 12, 2014. The right column features a 'Follow @flippedlearning' button and a 'FlipCon 2015' announcement. The announcement states that registration for the 8th Annual Flipped Conference is now open, to be held at MSU in East Lansing, MI, from July 13-15, 2015. Below the announcement is a 'SCHEDULE OF EVENTS' section with a table showing an event on June 11 from 5:00 PM to 6:00 PM, which is a webinar titled 'WSQ (Whisk) Away to FlipClass'. At the bottom of the page, there is a 'Featured Links' section with a 'FlipCon 2015' link and a 'Flipped Learning for Science Instruction' link. The website footer includes a Windows taskbar with various application icons and the text 'EN'.

HOME

flipped learning network

HOME DEFINITION ABOUT RESOURCES EVENTS SUPPORT CALENDAR

The mission of the Flipped Learning Network™ is to provide educators with the knowledge, skills, and resources to successfully implement Flipped Learning.

[Definition of Flipped Learning and Four Pillars of F-L-I-P](#)

Released on March 12, 2014, the board of the FLN defines Flipped Learning, distinguishes between the flipped class and flipped learning, and presents the Four Pillars of F-L-I-P and 11 indicators.

Follow @flippedlearning

FlipCon
2015

Registration for Virtual FlipCon 2015 is [now open!](#)

The 8th Annual Flipped Conference will be held at MSU in East Lansing, MI
July 13-15, 2015

The only Onsite & Virtual event for & by flipped educators.

Featured Links

FlipCon
2015

FlipCon 2015 - the 8th Annual Flipped Conference is coming July 13-15, 2015
This year we welcome Keynote Speaker Paul Andersen - 2011 Montana Teacher of the Year and Finalist for 2011 National Teacher of the Year. VIRTUAL FLIPCON 2015 REGISTRATION IS NOW OPEN!

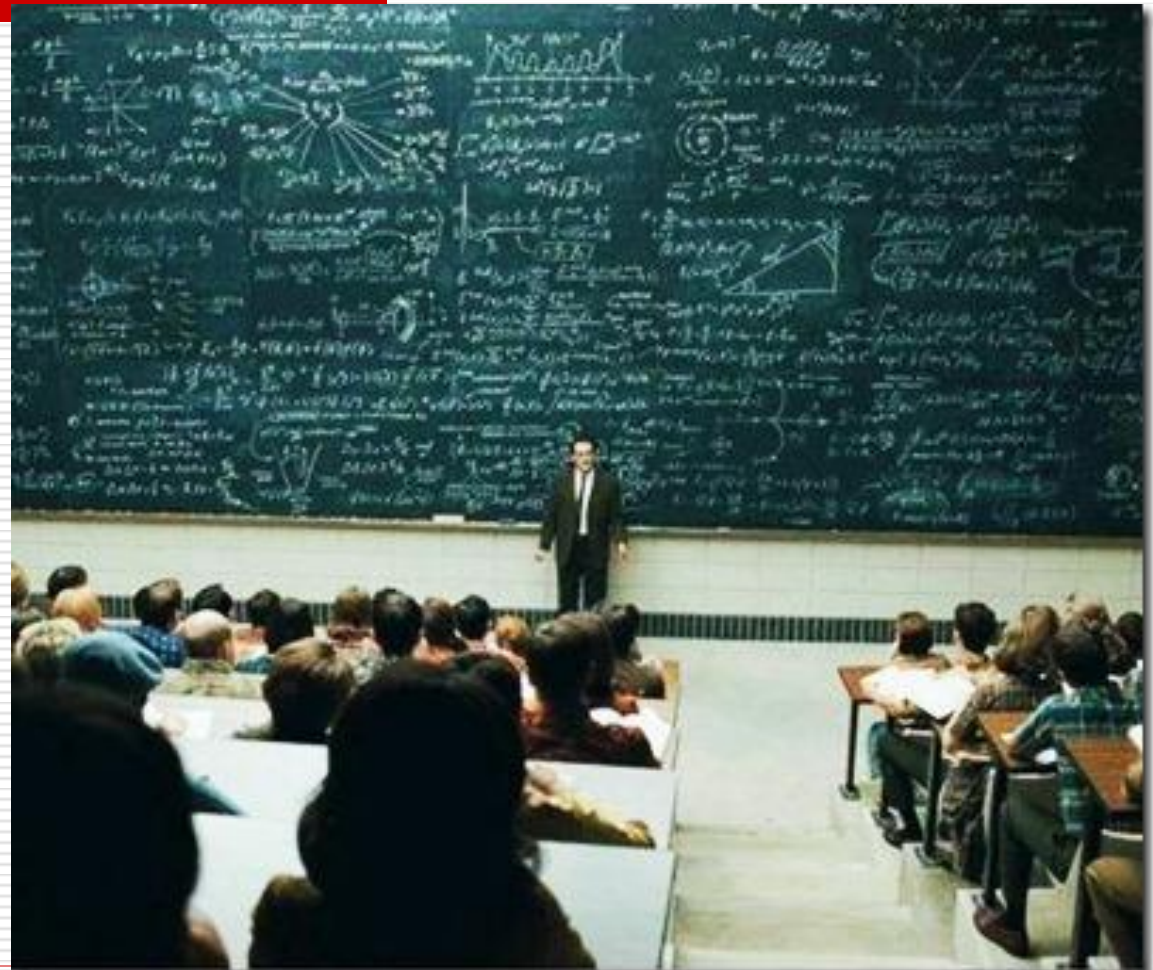
Flipped Learning for Science Instruction
Building on their best-selling and landmark book, Flip Your Classroom: Reach Every Student in Every Class Every Day, flipped education innovators Jonathan Bergmann and Aaron Sams return with a book series that supports flipped learning in five topic areas: science, math,

SCHEDULE OF EVENTS

Jun 11	5:00 PM - 6:00 PM Webinar: WSQ (Whisk) Away to FlipClass
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EN

The Traditional Classroom



Teachers: Lecturing ✓
Students: Listening ✓

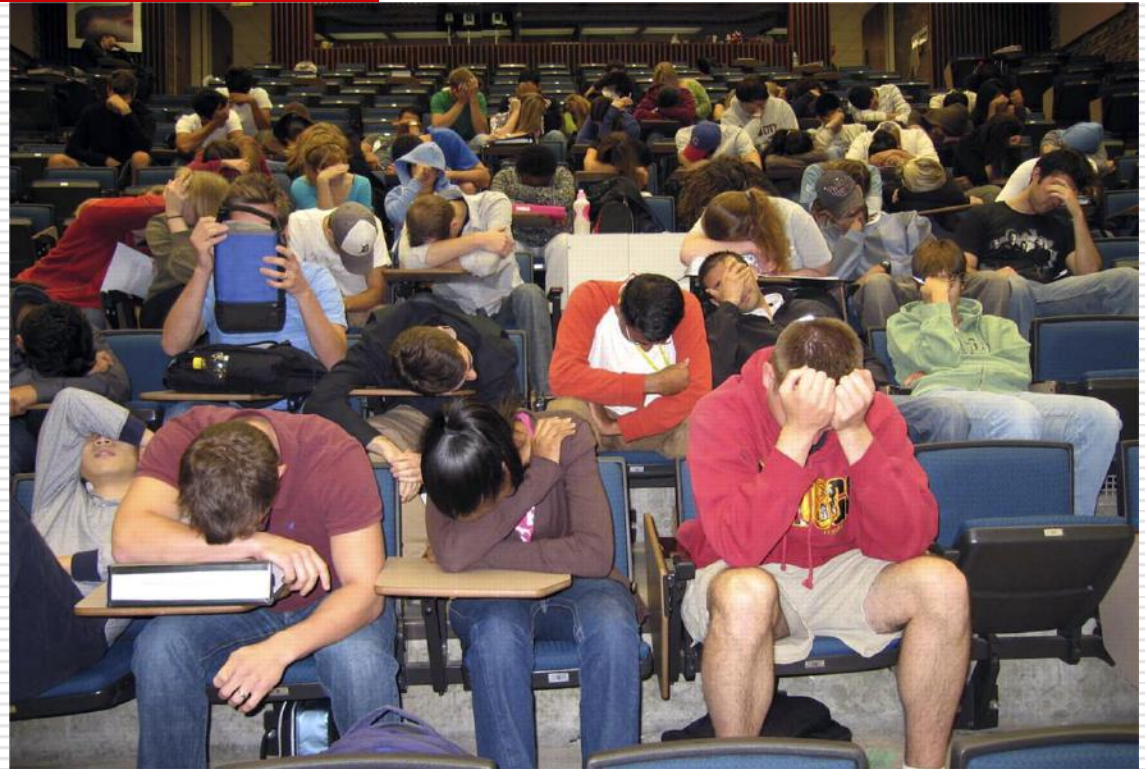
The Traditional Result



- ✓ Teachers: Still Lecturing
- ✓ Students: Out Cold

The Problem

- ✗ Students: Passive Learners
- ✗ Teachers: "Sage on the Stage"



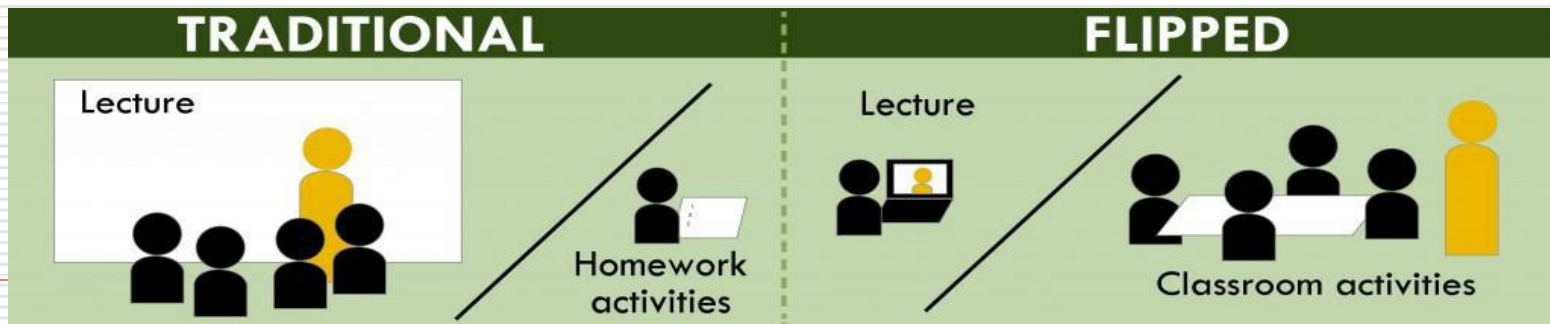
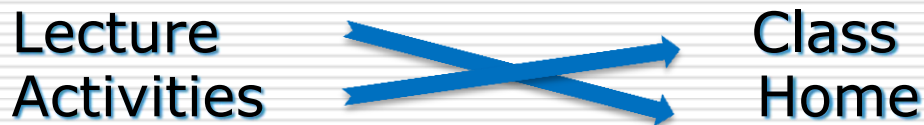
The Solution

- ✓ Students: Active Learners
- ✓ Teachers: "Guide on the Side"

The Steps

1. Record Lecture & Post Online
2. Assign Video as Homework
3. Use Class for Activities

The Method



What is flipping?

**FLIPPED
CLASSROOM
FLIPPED**

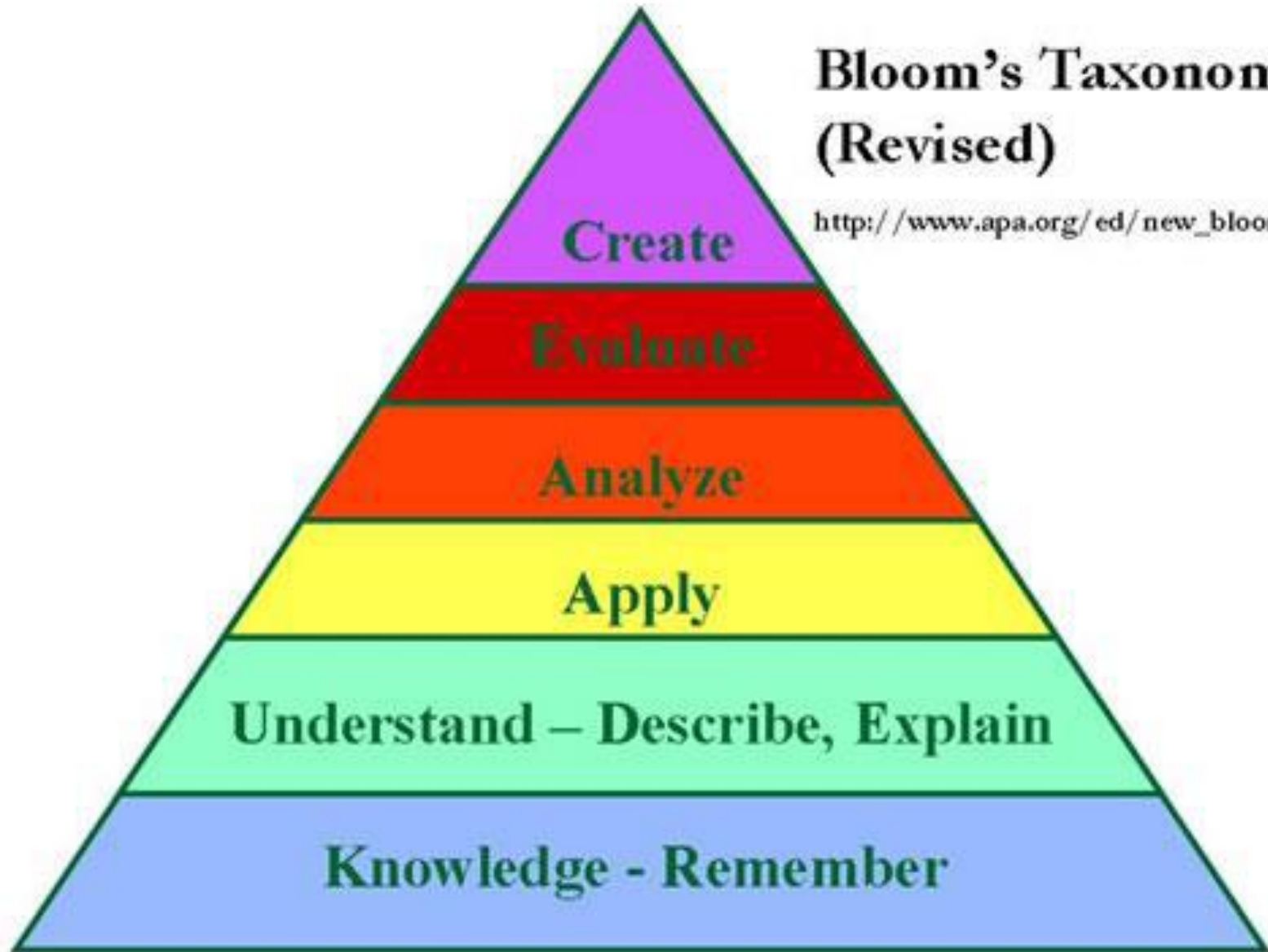


Flipped learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.

Flipped Learning Network Definition, 13/03/14

Bloom's Taxonomy (Revised)

http://www.apa.org/ed/new_blooms.html



Based on an APA adaptation of Anderson, L.W. & Krathwohl, D.R. (Eds.) (2001)

Traditional Model

Flipped Model



Flipped Learning Network Definition, 13/03/14

“Nice to meet you.”

Before Class

- Watching videos and reading
 - Getting familiar with terms and phrases
 - Introduction to concepts
-
- Formative assessment
 - Check for understanding



“Let’s Do Something Together.”

During Class

- Projects, problems, small groups, discussions, labs, creating things, analyzing things
-
- Formative assessment
 - Check for understanding



“Will you be my...?”

After Class

- Projects, papers, creating things, reviewing key concepts
-
- Formative assessment
 - Check for understanding



-
- We move **lectures out of the classroom**. We tape them in advance and post them on a website. Students **watch lectures** before coming to class. Frequent **low-stakes quizzes** motivate students to keep pace and watch the videos.

 - Classroom contact hours are for **coached activities, discussions**, and student presentations.
-



- We draw **exam questions from a published pool**, handed out as a study guide. Students prepare for exams by writing answers to the study guide questions. Because students have had plenty of open-book preparation time and opportunity **for peer-review**, we can require more carefully considered, better written answers.”

The UPRM model :

- 1- A set of pre-Lecture Modules and Exercises, delivered online;
- 2- A Lecture that responds to the students' experience in the pre-Lecture activities,
- 3- A Problem-Solving Session after each Lecture.

- Papadopoulos C, Santiago-Roman A and Portela G (2010) Work in progress — Developing and implementing an Inverted Classroom for Engineering Statics. *Frontiers in Education Conference (FIE), 2010 IEEE*
-

-
- ❖ Today, it seems, there is **no one correct** way to flip the classroom, and approaches vary both by subject and educational philosophy.
 - ❖ But no matter what the underlying philosophy, creating, curating, and maintaining a trove of video resources is central to success.

Bergmann & Sams coauthored the book: Flip Your Classroom: Reach Every Student in Every Class Every Day

The flipped classroom is NOT:

Ernest Reynolds, MS, RN, RRT; December-2012

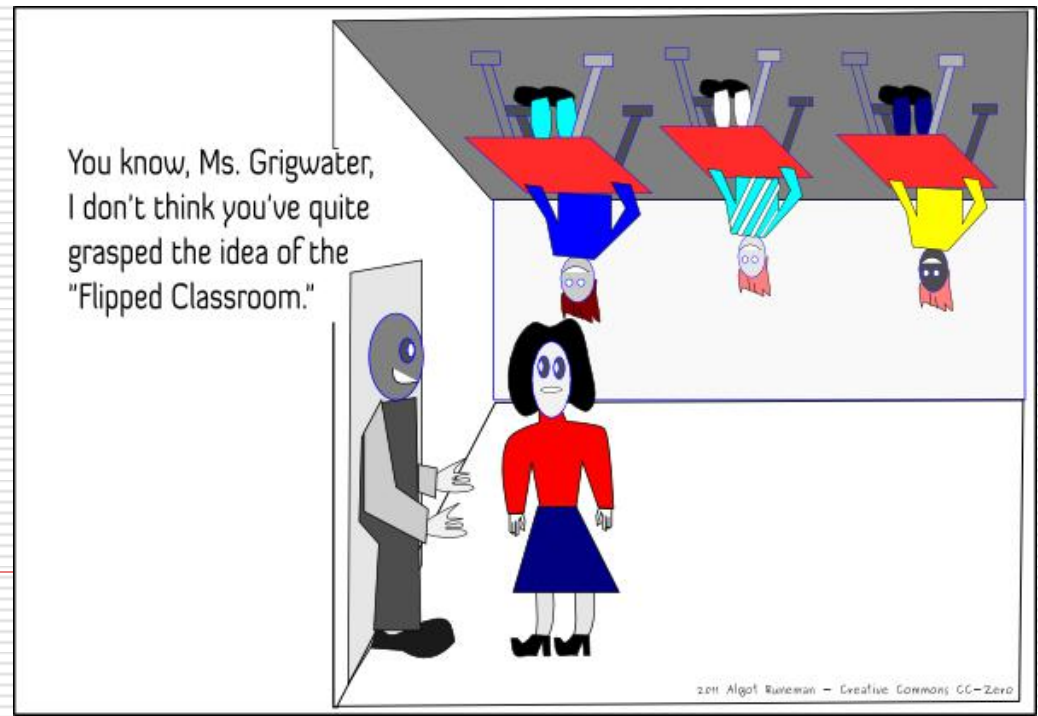
- **A synonym of online videos. It is the interaction and the meaningful learning activities that occur during the face-to-face time.**
 - **About replacing teachers with videos.**
 - **A completely online course.**
 - **Students working without structure.**
 - **Students spending the entire class staring at a computer screen.**
 - **Students work in isolation.**
-

There are Many Ways to Flip Your Classroom

- **Don't think you have to make your own videos—there is much available now on line (Khan Academy, YouTube, ...)**
- **Takes time to plan on what “parts” of your content/classroom you want to flip—not everything fits with flipping”**
- **Find out what is the “best” way to access your students—what access to they have at home, do some need to have the information “burned” on a disc, do all have the capability of Elluminate, etc?**
- **Find a way to engage students in the videos, not just “listening” to lectures on tapes. Should follow by some sort of discussion questions, etc.**

Problems:

- ✓ We don't know what to do with the extra time if we do not lecture in the class.
- ✓ Time is needed to develop the videos and discussions as well as activities that will be done in the classroom



Perceived Challenges

Rebecca Hamlett, hamlett@william.jewell.edu

✓ **Faculty buy-in**

- ✓ Faculty may not be open to a different pedagogical method of teaching
- ✓ Faculty may be unwilling to assign out-of-class material for instruction sessions

✓ **Student resistance**

- ✓ Students may be resistant to completing video assignments
- ✓ Students may not be at their “point of need”

✓ **MONEY – who has any?**

Benefits of the flipped classroom

Rebecca Hamlett, hamlett@william.jewell.edu

- ✓ Students are able to watch recorded lectures/tutorials any time, any where
- ✓ Students are able to review the material as many times as necessary to understand the content without frantic note-taking
- ✓ Different learning styles can be better accommodated by instructors and applied by students
- ✓ Instructors are able to devote class time to the application of skills instead of “telling” students the information
- ✓ Collaborative activities can be better designed to further peer teaching
- ✓ Students have an opportunity to ask questions during application rather than after class or from graded feedback

Comparison Traditional to Flipped

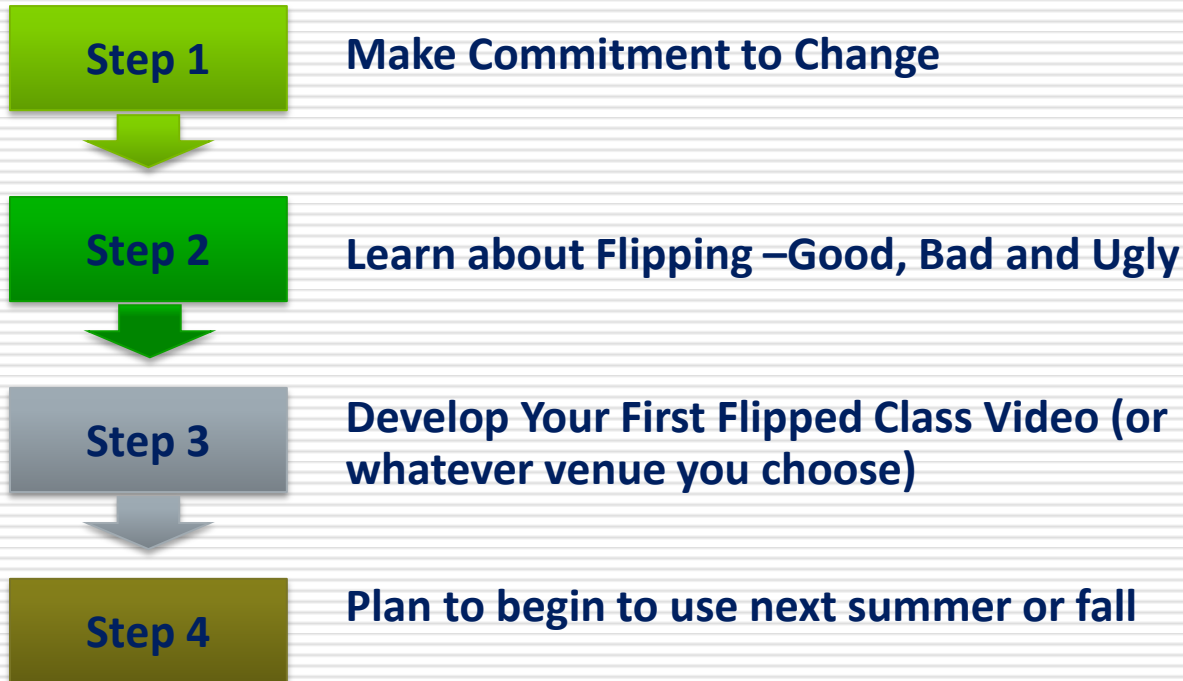
Traditional

Activity	Time
Warm-up Activity	5 min
Go over previous night's homework	20 min
Lecture new content	30-45 min
Guided and independent practice and/or lab activity	20-23 min

Flipped

Activity	Time
Warm-up Activity	5 min
Q&A time on video	10 min
Guided and independent practice and/or lab activity	75 min

What's Next?



Flipped Classroom: Yes or No?



THE FUTURE?

Rebecca Hamlett, hamlettr@william.jewell.edu

The Future of Flipped Classrooms

- Flipped classroom methodology is being actively explored in all disciplines and levels of education
- Technology has expanded the number of tools, many free, to facilitate active learning and peer collaboration
- Flipped classroom pedagogy is currently being widely debated
- Is this a better method to deliver instruction? Just a different one? Not a method that fits your needs?

Why not try it and see?



OPATEL





با تشکر