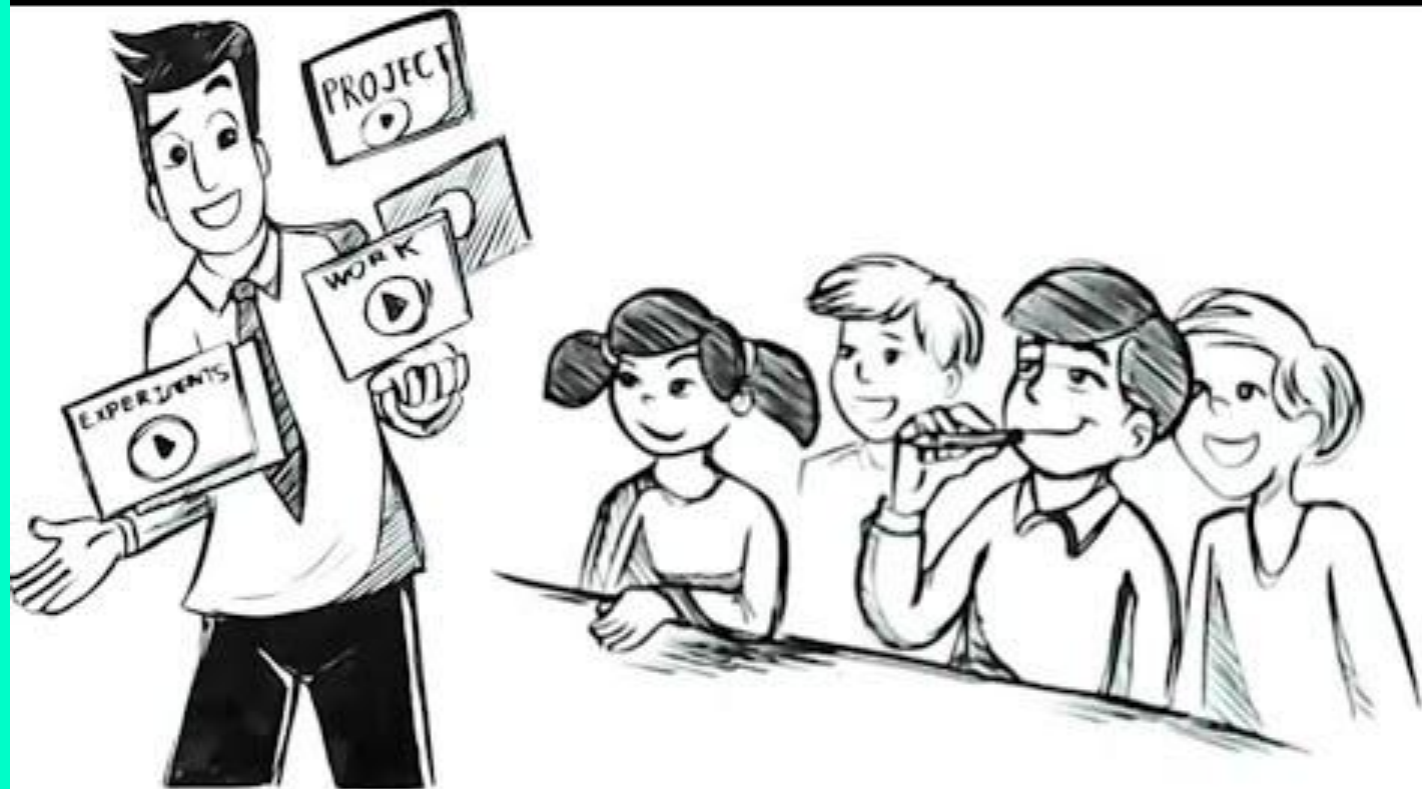
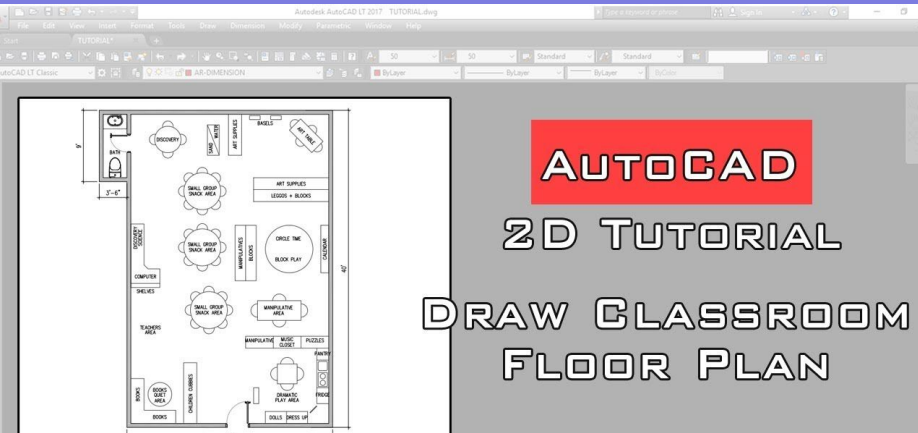


# WHY I LOVE MY FLIPPED CLASSROOM

**Stacey McGee, Centennial High School**  
**[stacey.mcgee@wcs.edu](mailto:stacey.mcgee@wcs.edu)**



# WHAT INSPIRED ME?



Adults Who Have Viewed an Online Educational Video

**2007** 15% of Internet Users

**2010** 30% of Internet Users



covering topics from arithmetic  
to physics, finance to history



## 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.

## THE RESULTS

### BEFORE THE FLIP

**+50%**

of freshmen  
failed English

**44%**

of freshmen  
failed math

**736** discipline cases  
in one semester

### AFTER THE FLIP

**19%**

of freshmen  
failed English

**13%**

of freshmen  
failed math

**249** discipline cases  
in one semester

"SPARTAN COLLEGE SEES RESULTS WITH CURRICULUM OVERHAUL", OCT. 7, 2014,

TULSAWORLD.COM

This article discusses the use of flipped teaching and learning techniques at Spartan College of Aeronautics and Technology in Tulsa, Oklahoma. The article includes the following specifics re: measured success with the use of flipped instruction (the "new program"):

"The combined first-time pass rate under the old, traditional learning style program was **83.9 percent**, college data show. The combined first-time pass rate for the new program is **96 percent**, a more than **12 percentage point increase**.

Overall costs of the program have been reduced for the student because every time a student failed an FAA test they would have to go back and retrain, Goertzen said."

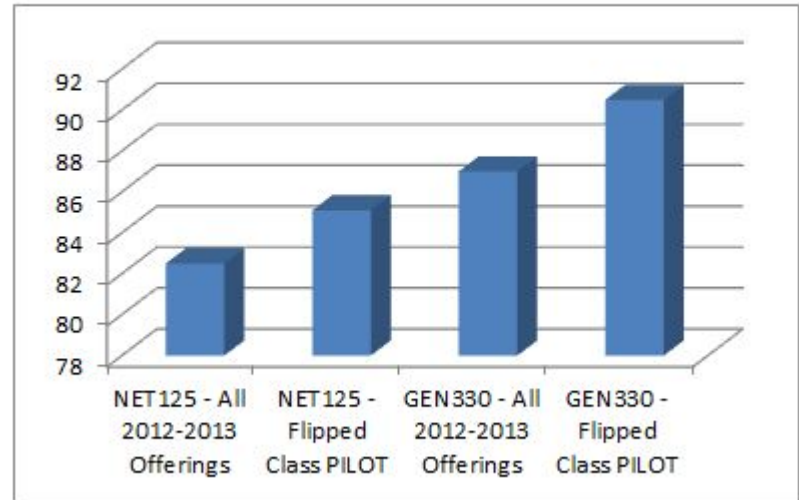
# "FLIPPED CLASSROOM MAY HELP WEAKER STEM STUDENTS", AUG. 5, US NEWS & WORLD REPORT

"At Villanova, Weinstein helped lead a pilot program for flipping engineering courses. New data from the program given to U.S. News shows the **bottom third of students' grades were more than 10 percent higher** than in a traditional classroom (the difference between a D+ and a C) and more than **3 percent higher for the class as a whole** (moving from a C+ to a B-)."

"FLIPPED LEARNING PILOT  
RADICALLY REDUCES DFW GRADE  
RATES IN TWO COURSES", AUGUST  
24, 2014, EMERGINGEDTECH.COM

College of Westchester

**Average non-DFW Passing Grades**

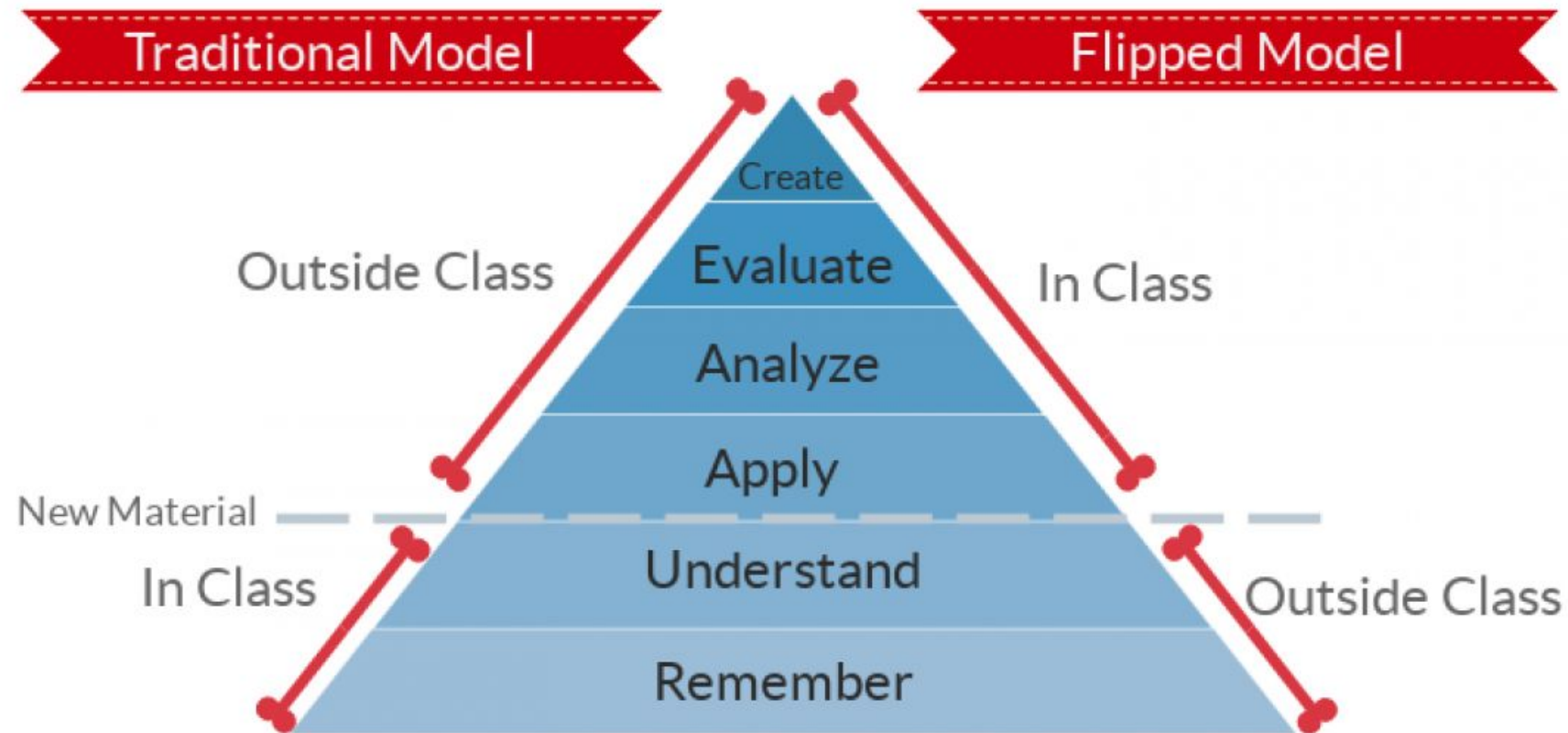




# PROS

- Students learn more deeply

# Bloom's Taxonomy in a Flipped Classroom



# PROS

- Students learn more deeply
- Students are more active participants in the learning.
- It promotes student-centered learning and collaboration.
- Instructors and students get more feedback.
- Students have more control to learn at their own pace.
- Lessons and content are more accessible (absences, ADD, ESL, learning disabilities, physical disabilities).
- It prepares students for college.
- It can be more efficient. Less time wasted in “getting” the content.
- Transparency for parents (and special education co-teachers)
- It gives me more time to build relationships in my classroom.

# CONS

- It can create or exacerbate a digital divide.
- It relies on preparation and trust.
- There is significant work on the front-end.
- Time in front of screens is increased.
- There can be a learning curve for students (and parents).

# ELEMENTS OF THE FLIPPED CLASSROOM

Students need to understand  
the expectations

<https://vimeo.com/56778644>

1. Come to class having watched the video and taken notes.
2. Be prepared to ask questions in class.
3. Help create a collaborative environment that is rooted in trust and openness.
4. More responsibility
5. More 1:1 time with your teacher

# ELEMENTS OF THE FLIPPED CLASSROOM

Create a place to post your  
videos

1. Google Classroom
  2. Google Drive
  3. Dropbox
  4. Weebly
  5. EDpuzzle
  6. Wix
-

# ELEMENTS OF THE FLIPPED CLASSROOM

Make your videos

1. Smartboard or Document  
Camera
  2. ELMO ImageMate
  3. Screencastify Google  
Chrome Extension
  4. Screencast-o-matic
  5. Powerpoint screen  
recording tool
-

# ELEMENTS OF THE FLIPPED CLASSROOM

When you don't want to (or  
can't) create your own  
video...

(Warning: use these  
sporadically!)

1. Youtube
  2. Khan Academy
  3. TED.com
  4. Numberphile
  5. Mathapptician
  6. Showme.com
  7. Watchknowlearn.org
-



# ELEMENTS OF THE FLIPPED CLASSROOM

Classroom

1. These can be more traditional (just deeper)! Worksheets, textbooks, activities, stations, tasks, whatever you like
  2. Khan Academy
  3. Webassign
-

# WHAT DOES MY CLASSROOM LOOK LIKE?

## Standard Precalculus

- Students receive a list of videos and assignments at the beginning of the unit with due dates staggered.
- Students get notes sheets to aid with the videos as needed.
- Students work individually on webassign while seated in groups so they can choose to work together.
- Students are working at their own pace through the unit, mostly in class.

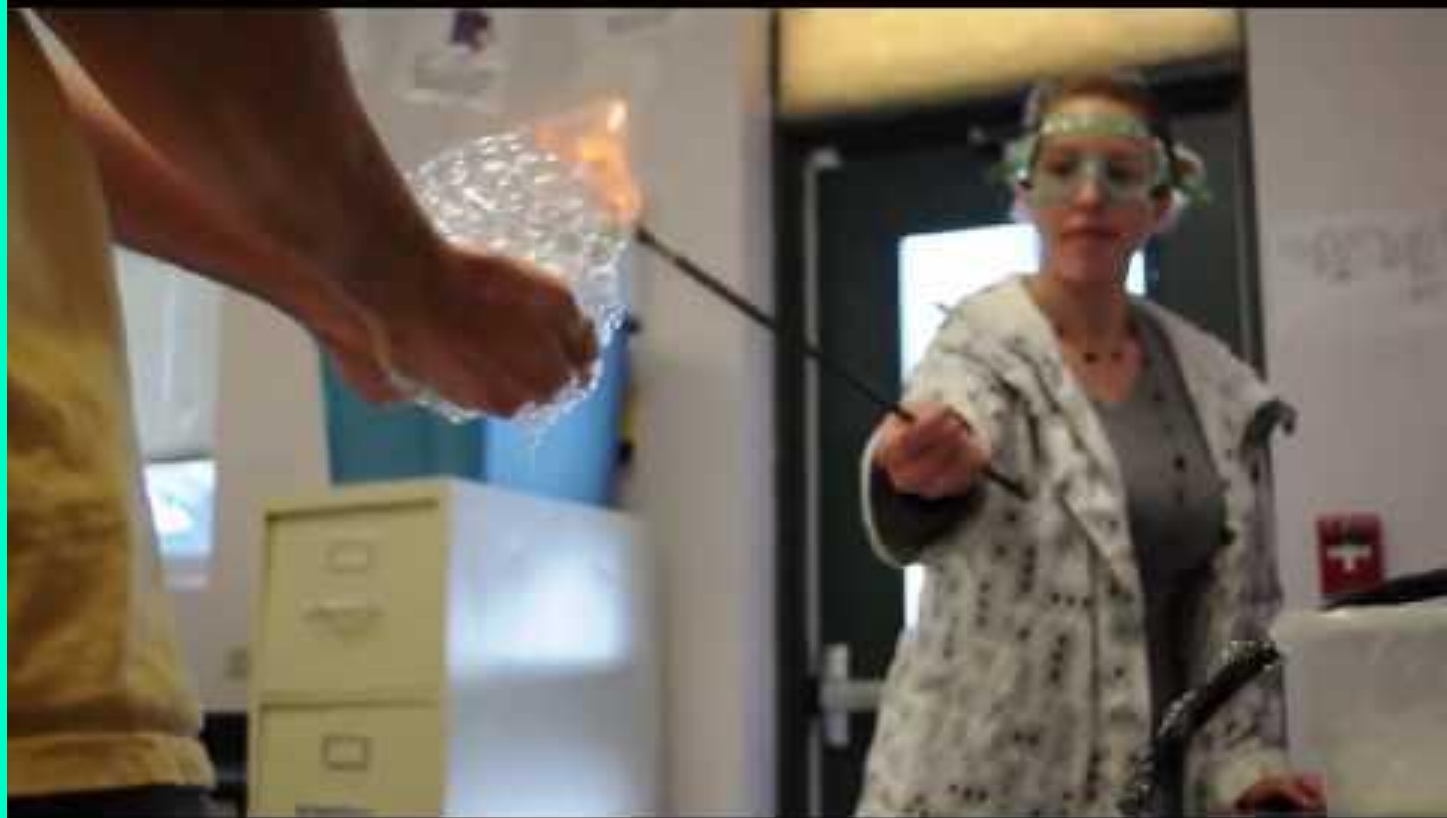
## Honors Algebra 2

- Students are assigned a video (almost) every night and must take notes and answer questions.
- Students come in and work on an in-class worksheet or textbook assignment in groups.
- I check notes and in-class assignments several times a week.
- Students are working on the same assignment at the same time.

# OTHER OPTIONS

## In-Class Flip (with stations)

- Flip Station with digital and paper-based content.
- Practice Station (students can prove levels of mastery)
- Independent Station (for fast finishers)
- Feedback Station (students provide feedback on their own learning, or their classmates work)
- Teacher support station
- Peer instruction station



LOOK UP THIS TED TALK!!!

**Reimagining Classrooms: Teachers as Learners and  
Students as Leaders**

# RESOURCES

<https://facultyinnovate.utexas.edu/flipped-classroom>

<https://www.21things4teachers.net/21-things/20---blended-or-flipped-classrooms/>

<https://www.teachthought.com/learning/10-pros-cons-flipped-classroom/>

<https://www.easy-lms.com/knowledge-center/about-flipped-classroom/flipped-classroom-advantages-and-disadvantages/item10610>

<https://vimeopro.com/facultyinnovate/flipped-classroom/video/56778643>

Firstyearflipped.com

# QUESTIONS?

Email me

[stacey.mcgee@wcs.edu](mailto:stacey.mcgee@wcs.edu)

for a copy of this presentation