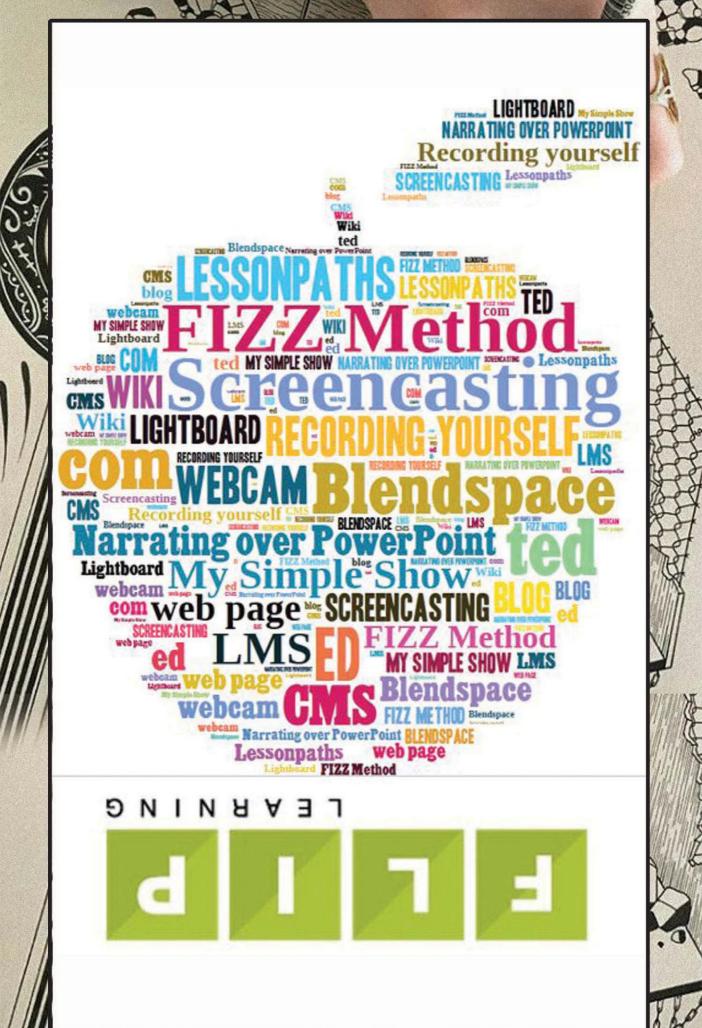


How to AITA

Your Classroom



THE **EVOLUTION** OF TECHNOLOGY IN SCHOOLS

Educational capabilities are growing and changing with each passing day as a result of technological innovations.

1860

One-room School Houses fir The Blackboard

A single teacher taught academic basics to several grade levels of primary-age children.

1920

Radio

On-air classes became available for any student.



1930

Overhead Projector

Used to display images in the classroom.

1940-1980

Filmstrips

Still image instructional multimedia, once used by educators in primary and secondary schools.



1951

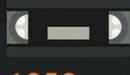
Videotapes

Magnetic tapes were used to store motion images and sound.



B.F. Skinner's Teaching Machine

Its aim was to improve teaching methods for spelling, math, and other school subjects by using a mechanical device.



1959

Photocopie

Making paper copies of documents and pictures.





1960 Whiteboards

The replacement of blackboards with whiteboards started in the early 60's.

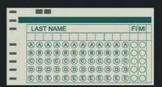
1964 BASIC Programming Language

John G. Kemeny and Thomas E. Kurtzwanted designed the BASIC programming language to enable students to use computers.



1972

Scantrons
Scantron sheets were testing aids that turn exams into multiple guess puzzles using the method of data acquisition.





Handheld Calculator

Used by students for quick mathematical calculations.

1975

Apple 1
Apple Inc began donating Apple 1
model desktop PCs to schools.



1981

First Portable Computer

IBM introduced its first personal computer weighing 24 pounds.



1982

BBC Micro was used in the creation of student's own programs.



World Wide Web

The world wide web became available to students in schools.



Personal Digital Assistants (PDAs)

A mobile device that functions as a personal information manager.



2002

Moodie is the largest open-source learning management platform in the world, used both for education and business.



moodle 2003

Social Media

MySpace was introduced first with Facebook and Twitter following. Many schools are restricting access to social media, while others have embraced them.

iPads and Tablets

The popular tablet allowed pupils to record high quality videos and podcasts, improve research on the Internet, create great reports, presentations and many other things.



2012

Raspberry Pi

The pocket-sized computers are promoting the teaching of basic computer science in the classroom.



The ARM-based embedded system is used in computer education to encourage pupils to get involved in writing software.

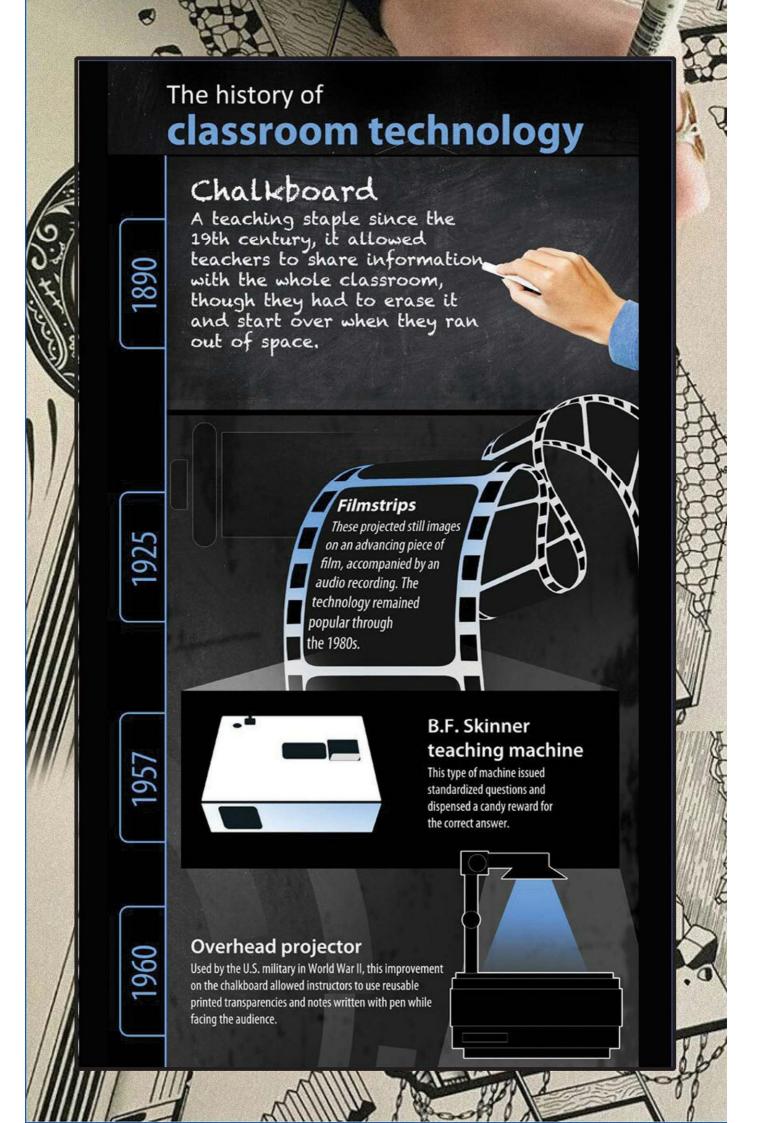


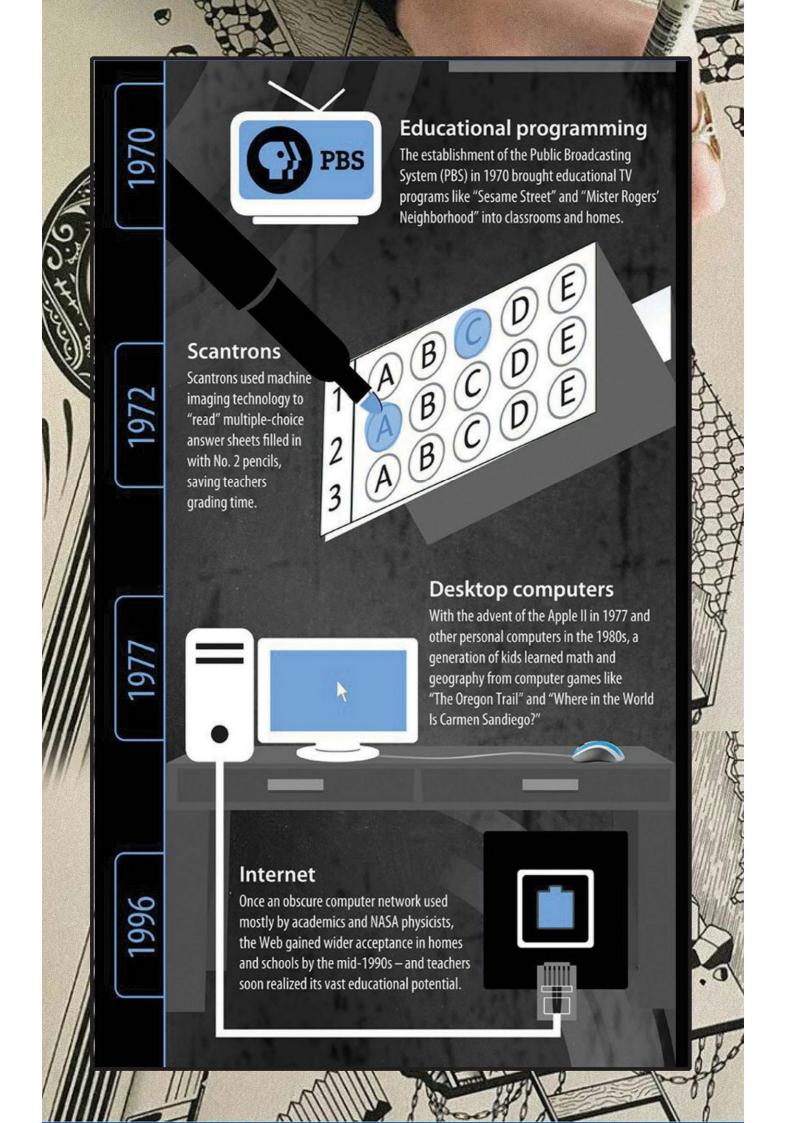
Future Prediction

Virtual Reality and Learning

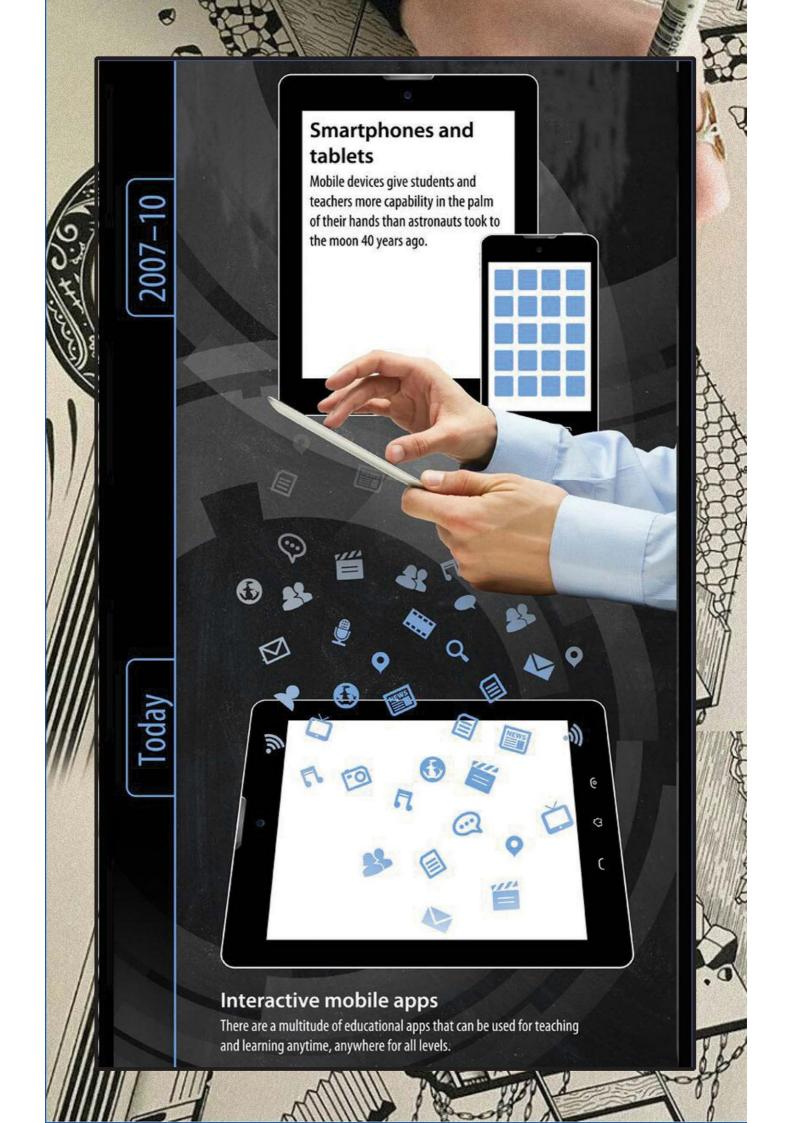
This could combine the best aspects of both real-world classrooms and distance e-learning into a single virtual learning management system.











The art of bite-sized learning

- Even though the human memory is a wonderful thing, it can also be rather frustrating at the best of times too. But in many respects, this is because of the way it has been taught or trained to remember pieces of information.
- In their paper The "Change-up" in Lectures, Joan Middendorf and Alan Kalish observed a polarity between the way lectures were being taught and how students learnt.
- "Research tells us that the traditional lecture does not match what current cognitive science tells us of how humans learn," they noted. "Research tells us that the brain does not record information like a videocassette recorder. Instead, it handles the volume of information by reducing it into meaningful chunks, that we call categories."
- So, it doesn't matter whether students receive a 60-minute university lecture or an 8-hour corporate training session, new information and skills won't be cemented in their memories unless it is broken down into easily consumable chunks.
- Nonetheless, being concise enough to break down often intricate or elaborate learning materials into bite-sized periods of time is only one side of the coin. Students need a platform to execute their newfound knowledge; otherwise the classroom remains a passive learning environment.



- "Once a concept has been introduced, students need an opportunity to practice thinking in terms of that concept," say Middendorf and Kalish. "Right in a lecture class, you can ask students to generate their own example of the concept, summarize it, write an exam question for it, or explain it to someone else.
- "This approach works with the mind's natural processes, and thus improves learning compared to traditional lecture."
- "A large body of literature tells us that when the goal is to foster higher levels of cognitive or affective learning, teaching methods which encourage student activity and involvement are preferable to more passive methods," cite Middendorf and Kalish.
- Therefore, give students consumable chunks of teaching with opportunities to demonstrate their new knowledge in an interactive way afterwards, and you will have achieved the art of bite-sized learning



Why Bite-Sized Learning is Better for Your Learners



Microlearning makes the transfer of learning 17% more efficient



8 out of 10 L&D professionals favor microlearning because their learners prefer it



Microlearning creates
50% more engagement



Learning in stretches of 3-7 minutes matches the working memory capacity



Microlearning courses can be produced in 300% percent less time and at 50% less cost than traditional courses





What is Flipped Learning?

While often defined simplistically as "school work at home and home work at school," Flipped Learning is an approach that allows teachers to implement a methodology, or various methodologies, in their classrooms.

To counter some of the misconceptions about this term, the governing board and key leaders of the Flipped Learning Network (FLN), all experienced Flipped Educators, have composed a formal definition of "Flipped Learning." Explicitly defining the term may dispel some of the myths repeatedly promulgated by teachers, the media, and researchers.

These Flipped Learning leaders also distinguish between a Flipped Classroom and Flipped Learning. These terms are not interchangeable. Flipping a class can, but does not necessarily, lead to Flipped Learning. Many teachers may already flip their classes, by having students read text outside of class, watch supplemental videos, or solve additional problems, but to engage in Flipped Learning, teachers must incorporate the following four pillars into their practice.

Definition of Flipped Learning

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 the subject matter.



The Four Pillars of F-L-I-P™

Flexible Environment

Flipped Learning allows for a variety of learning modes; educators often physically rearrange their learning spaces to accommodate a lesson or unit, to support either group work or independent study. They create flexible spaces in which students choose when and where they learn. Furthermore, educators who flip their classes are flexible in their expectations of student timelines for learning and in their assessments of student learning.

permit students to interact and reflect on their learning as needed. I continually observe and monitor students to make adjustments as appropriate. I provide students web different ways to learn content and demonstrate mastery,

Learning Culture

In the traditional teacher-centered model, the teacher is the primary source of information. By contrast, the Flipped Learning model deliberately shifts instruction to a learner-centered approach, where in-class time is dedicated to exploring topics in greater depth and creating rich learning opportunities. As a result, students are actively involved in knowledge construction as they participate in and evaluate their learning in a manner that is personally meaningful.

- a l give students opportunities to engage in meaningful activities without the teacher being central
- them accessible to all students through differentiation and feedback

The Four Pillars of F-L-I-P™

Intentional Content

Flipped Learning Educators continually think about how they can use the Flipped Learning model to help students develop conceptual understanding, as well as procedural fluency. They determine what they need to teach and what materials students should explore on their own. Educators use Intentional Content to maximize classroom time in order to adopt methods of student-centered, active learning strategies, depending on grade level and subject matter.

In prioritize concepts used in direct instruction for learners to access on their own I create and/or curate relevant content (typically videos) for my students. I different to make content accessible and relevant to all students.

Professional Educator

The role of a Professional Educator is even more important, and often more demanding, in a Flipped Classroom than in a traditional one. During class time, they continually observe their students, providing them with feedback relevant in the moment, and assessing their work. Professional Educators are reflective in their practice, connect with each other to improve their instruction, accept constructive criticism, and tolerate controlled chaos in their classrooms. While Professional Educators take an less visibly prominent roles in a flipped classroom, they remain the essential ingredient that enables Flipped Learning to occur.

for individual, small group, and class feedback in real time as needed. Conduct ongoing formative assessments during class time through observation and by recalling data to inform future instruction. Collaborate and reflect with other educators and take resconsibity for
--

Tips for Creating Digital Content for Flipped Learning

- The perennially popular technique of <u>screencasting</u>
- Narrating over PowerPoint
- The low-tech <u>FIZZ method</u>
- The web app <u>mysimpleshow</u>
- The high tech (but probably not as challenging as you might think) approach of using a light board
- The use of <u>Blendspace</u> as a tool for assembling digital content for flipped or blended lessons
- The rather unique approach of using Adobe Connect
- The powerful <u>ed.ted.com</u> platform
- Course Management system as a vehicle for flipped or blended lessons In our last post, we discussed the use of the <u>Learning Management or</u>

Some Useful Video URLs for Creating Digital Content

https://youtu.be/GuA8fPCHu9c

https://youtu.be/HzqBkc2RMw8

https://youtu.be/TPPbAcY9s-M?list=PLVi5ks82jnjBgAct6_jWCgOx3PetmjfMA

https://youtu.be/518vDCWnG9s?list=PLVj5ks82jnjBgAct6_jWCgOx3PetmjfMA

http://www.bbc.com/news/business-38530245



It's one of the biggest trends in education. Here are some simple steps you can take to get started with the big flip!



RECORD

Instead of teaching this lesson in-person, make a video. A screencast works. Make sure it contains all the key elements you'd mention in the classroom.



PLAN

Figure out which lesson in particular you want to flip. Outline the key learning outcomes and a lesson plan.







SHARE

Send that video to your students. Make it engaging and clear. Explain that the videos content will be fully discussed in class.

The 6-Step Guide To

Its one of the biggest trends in education. Here are some simple steps you can take to get started with the big flip!

CHANGE

Now that your students have viewed your lesson, they're prepared to actually go more in-depth than ever before.







GROUP

An effective way to discuss the topic is to separate into groups where students are given a task to perform. Write a poem, a play, make a video, etc.

REGROUP

3+1=4

Get the class back together to share the individual group's work with everyone. Ask questions, dive deeper than ever before.





REVIEW

Go over what worked with this flipped lesson.



REVISE

Change what didn't work so and well.



REPEAT

Do it again! The more refining and revising, the better!

4 signs you have a real flipped classroom



You've recorded your lectures. your students can learn from them at home. But that's only the first step on the path to a flipped clasroom. The magic, starts when. you use that extra class time for deep learning. Here are four telltale signs you're doing it right.

1.



Students get hands-on.

The best use for your newfound class time? Projec-based learning! When students get hands-on, they're more likely to enjoy and retain what they learn.

2.



You like each other

More class time means more time to build meaningful relationships. Talk to students about what theyre into and ask for then input on classroom rules.

3.



It's all about them.

Personalize learning activities to fit students' diverse learning styles. Let them do a hands-on demonstration instead of an essay, for example. 4.



They're passionate about what they're learning.

For students to deeply understand content, they need to care about it. Let them choose project topics while you guide the application, analysis and creativity.

How to flip a classroom



EMPOWER the student

- · Create a student-centered learning environment
- . Turn the teacher into a learning guide

60% of students say they like to use technology in their learning process.



USE TECHNOLOGY

to allow easy access to learning materials anytime & anywhere

Video lectures, online studies/reading materials, audio and video resources

In one study where 200 teachers had flipped their classes, 85% saw an increase in grades.



EVALUATE learning outcomes regularly, and adapt exercises to students' needs

Learning analytics provide insight into areas where students lack knowledge/skills and allow teachers to adjust accordingly

A case study reports that 95% of students believe video lectures enhance their learning.



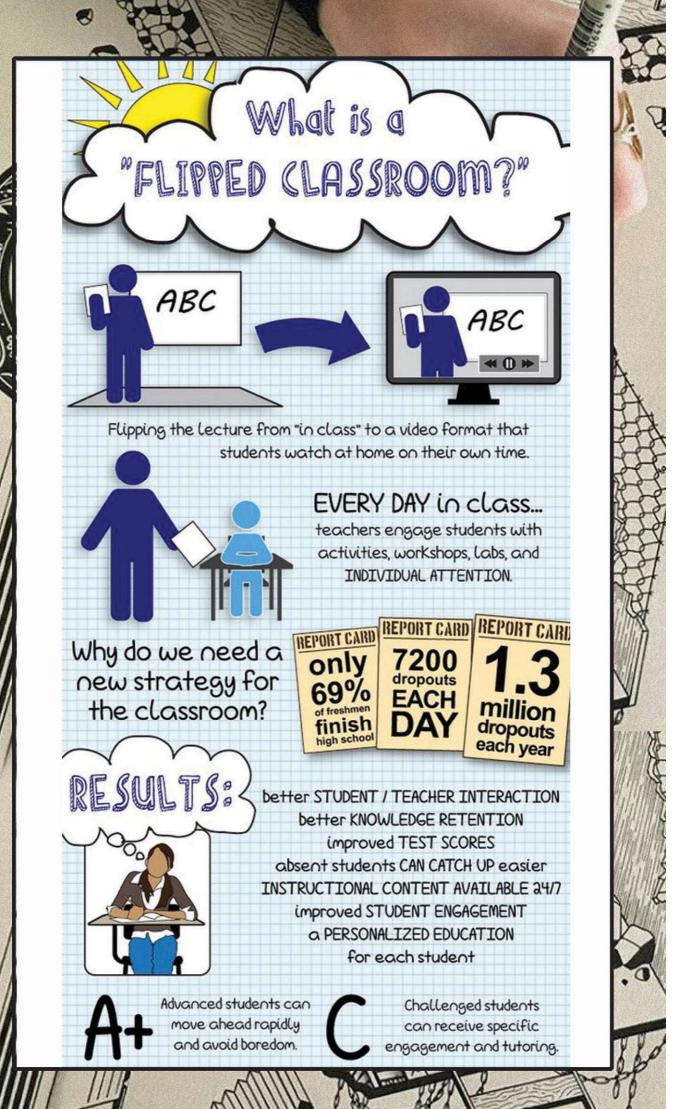
CREATE LEARNING COMMUNITIES where

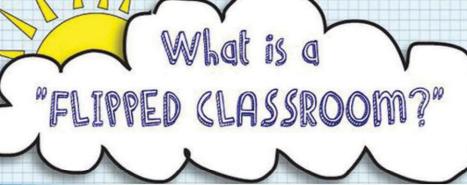
constructive criticism is valued

Teachers exchange educational ideas with peers to create better learning environments

69% of students and 73% of academic staff already use

60% of teachers who have flipped their classrooms believe online learning increases student motivation.







How Teachers are Responding

85%

30%

25%

see improved grades connect with students outside the classroom use class time to explore subjects more deeply

23%

said their classroom became an interactive environment

80%

who have not "flipped" their classroom would like to know more

"We have been able to quadruple the amount of time our students spend with their own teachers."

Greg Green
Principal
Clintondale High School

"My in-class time is much more structured toward students working together in groups, problem solving."

CASE STUDY: Clintondale High School Dan Sauser math teacher Monticello High School

Clinton Township, MI

The English

The Math failure rate: 44% +0 13%

The Social Studies failure rate: 28% †0 9%

failure rate: 52% +0 19%

↑ Attendance

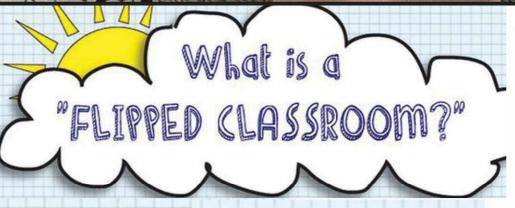
◆ Discipline Cases

Notable improvement on

statewide test scores the 9th grade failure rate



in one year.





How Students Are Responding

"It seems like you actually learn stuff, and if you don't get it, you go over it and actually get an understanding for it."

> Chris Oehlert, 15 Prairie Point Middle School

CASE STUDY: Westside High School

Macon, GA

2012

preferred Lectures.

after the flipped class



preferred the new model

Russell Mumper Vice Dean University of North Carolina

\$1.7 million

federal "blended learning" grant in 2010



EACH STUDENT

at every grade level receives a netbook computer to enable online learning and video lectures.

Georgia State Standard end-of-course exams

before: after:

of students passed the State exams

including

9 out of 10

special education students

Sydney Elkin

Social Studies teacher Westside High School



AT HOME, STUDENTS WORK WITH TECHNOLOGY AT THEIR OWN PACE

PREPARES STUDENTS FOR MORE COMPLEX THINKING AT SCHOOL



USING ONLINE CONTENT PROVIDED BY THE TEACHER

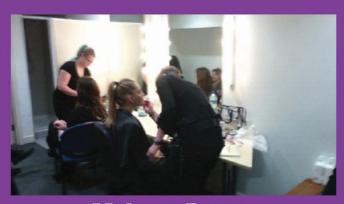
THROUGH LABS PROJECTS & DISCUSSIONS WITH PEERS & TEACHER



Basic Building Blocks of Flip Learning



Flipped Classroom



Makeup Room



Control Room



Studio

16 THINGS TEACHERS SHOULD TRY IN 2016



- GOOGLE CARDBOARD
- 2 SKETCHNOTING
- BLOGGING
- **4** PODCASTING
- 5 LIVE STREAMING
- **WEARABLES**
- START A YOUTUBE CHANNEL
- 6 GOOGLE CLASSROOM
- **9** JOIN A G+ COMMUNITY
- 10 GAMIFY A LESSON/PD
- **#** BREAKOUT EDU
- **12** A VOXER CHAT
- **BRANDING**
- **14** 3D PRINTING
- LET YOUR STUDENTS TEACH YOU!
- 16 JAR OF AWESOME

IO WAYS TO SABOTAGE YOUR CLASSROOM MANAGEMENT

- 1. SMILE WHEN STUDENTS TRY TO GET YOU OFF-TRACK. When you need them to be serious, but they keep goofing just encourages them.
- 2. HANDLE PROBLEMS PUBLICLY. Addressing misbehavior in a public way risks embarrassing the student. This can make her retaliate, and next thing you know, you're dealing with a power struggle.
- 3. ONLY GIVE VERBAL INSTRUCTIONS. So many problems start with students not understanding what they are supposed to do, especially when teachers only speak directions instead of writing them.
- 4. ADDRESS THE CLASS BEFORE EVERYONE IS

 QUIET Talk before everyone is listening and some won't hear you.

 Are they bad listeners, is your timing off?
- 5. TALK WHEN STUDENTS ARE SUPPOSED TO BE READING...AND VICE VERSA.

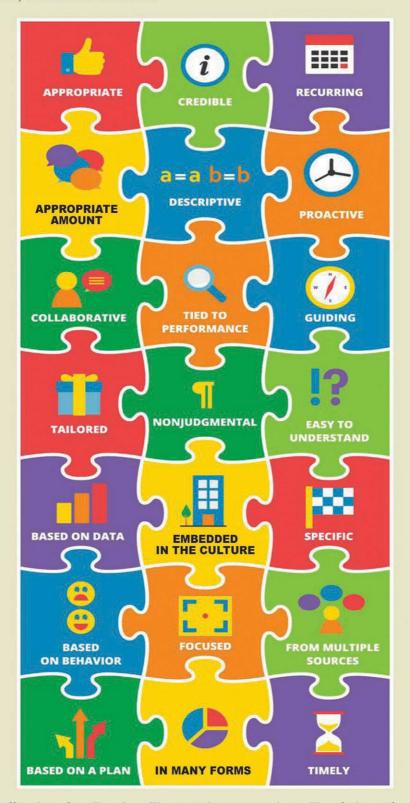
The brain can't do both at once.

- 6. PHRASE EVERYTHING AS A "DON'T."

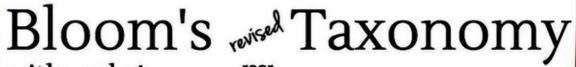
 If you tell a seventh grade boy not to tap his pencil, he still has pencil tapping on the brain.
- 7. ALLOW BEHAVIOR INTERVENTIONS TO DRAG ON AND ON. This not only takes away valuable students, who are forced to sit and watch.
- 8. STAY AT THE FRONT OF THE ROOM. If you're always at the front pick up on trouble in the early stages.
- 9. ONLY FOCUS ON THE PROBLEMS. You'll get more . cooperation attention to the behaviors you want to see.
- 10. TAKE THINGS PERSONALLY. Interpreting student misbehavior as a personal affront just makes things worse.

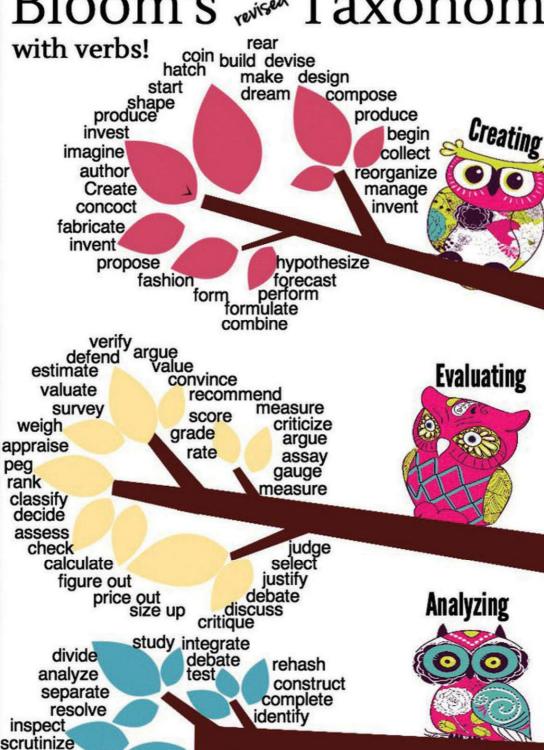
21 COMPONENTS OF EFFECTIVE FEEDBACK

Effective feedback can have a major impact on employee performance. In order to be effective, feedback must be:



The most effective feedback will contain many (or all) of the aforementioned components. Managers seeking to increase performance with effective feedback should incorporate them into their feedback processes.





apprise

examine

differentiate

estimate

compare

distinguish

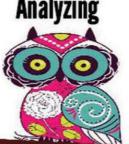
categorize

explain

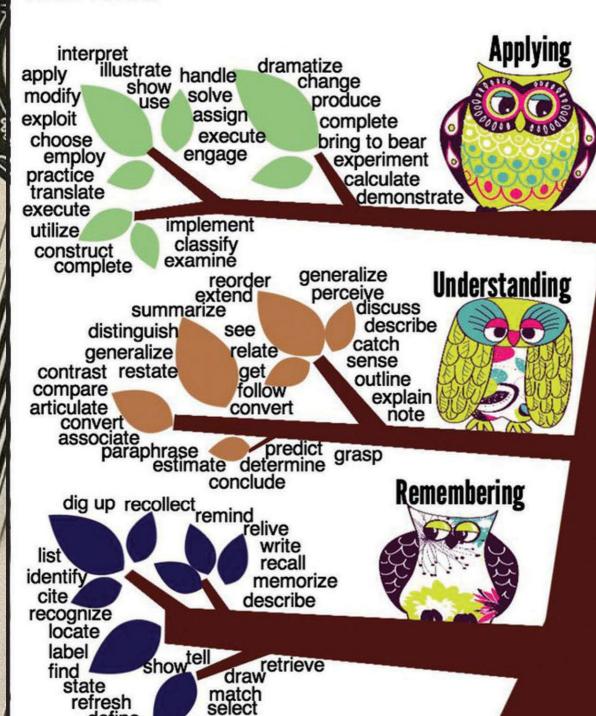
investigate

appraise

figure







refresh define

reproduce

Applying Bloom's Taxonomy in Your Classroom

1. REMEMBER

Students are expected to retrieve information from memory, but aren't expected to change it in any way.

0.0

In-Class Instruction

Students memorize a definition of an associative property.

Assessment

Students are given a multiple choice question and asked to recognize the answer, or are asked to recall the answer and fill in a blank.

2. UNDERSTAND

Students are building new connections in their minds.



In-Class Instruction

Students identify the key characteristics needed for an organism to survive in a particular ecosystem.

Assessment

When given the description of a fictitious animal, students explain whether the animal will survive in a given ecosystem.

3. APPLY

Certain procedures or steps are expected to be followed in order to answer new problems.



In-Class Instruction

Students learn about Newton's three laws.

Assessment

Students are asked to examine the information about a car crash and determine which if any of Newton's laws apply to the situation.

Applying Bloom's Taxonomy in Your Classroom

4. ANALYZE

Students utilize lower-level thinking skills to identify key elements and examine each part.



In-Class Instruction

Students read a student lab report and identify the evidence to support the finding.

Assessment

Read the results of the scientific study and find supporting statements for each conclusion or finding.

5. EVALUATE

Informational sources are examined to assess their quality and decisions are made based on identified criteria.



In-Class Instruction

Students read about the physical effects of exercise on humans.

Assessment

Read an article about a famous athlete. Identify one piece of information in the article that fails to support the author's case that hard work was the main reason for the athlete's exceptional athletic skills.

6. CREATE

Learners organize information in a tielh new or different way.



In-Class Instruction

Students research the role of economics in business.

Assessment

Students brainstorm reasons for a problem and generate suggested solutions, and design and implement a campaign designed to solve the identified problem.



Bloom's Taxonomy

Cognitive Dimension (6 Levels)

- Focuses on the tasks that students complete to deepen student understanding.
- Relies mainly on the verb to indicate or classify the level of thinking.

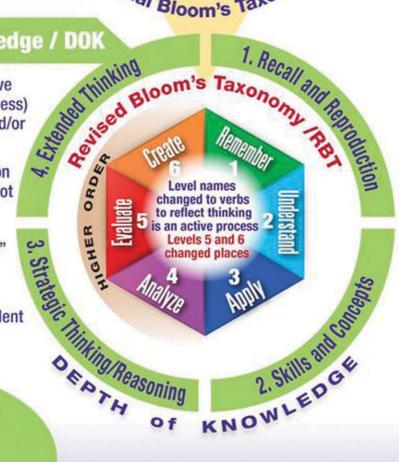


Depth of Knowledge / DOK

DOK focuses on cognitive demands (thinking process) of instruction, tasks, and/or assessments.

- Webb's DOK centers on the thinking process, not just the product. This extends beyond the verb/ beyond the "what" to the "how."
- It digs deeper into thinking to expand student learning into depth.

DOK is a description of how students think, not a taxonomy.



BLended

What do you mean ...?



Two of the hottest trends in technology enhanced teaching and learning are blended learning and the flipped classroom. Each model is effective, yet they are distinctly different approaches. If you get confused about which is which, think of this formulation... all flipped classroom courses are blended courses, but not all blended courses are flipped classroom courses

Blended learning

Face to face

Blended

found more effective*

Online

Before the flip

50%

Freshmen

failed

English

semester

44% Freshmen failed

Math

736 discipline cases in one

After the flip*

19% 13%

249 discipline cases in one semester

SO WHAT EXACTLY IS IT?

BLended

A Blended Learning course is one which a portion of in-class time is replaced by online activities. For example, a small group discussion takes place in an online format rather than in class. The online activities allow for individual reflection as well as collaborative learning among students.

FLIPPED

The Flipped Classroom is one in which traditional in-class activity-the lecture-is delivered outside of class. In-class time is used for small group problem-solving, and other such activities that allow students to engage at a deep level with the content they viewed outside of (and before) class.

BLended

FLIPPED

What do you mean ...?

WHY USE THE BLENDED LEARNING MODEL?

WHY USE THE FLIPPED CLASSROOM MODEL?

The blended learning model has been known to:

<Give students time to reflect





<Empower every student to participate and be "visible"</p>

 Enable the instructor to provide oversight and provide oversight and provide oversight: color:blue; but the color:blue







The flipped classroom model has been known to:

<Enable instructors to help students who struggle most</p>





<Allow students to pause and rewind the video lectures as needed</p>

<Empower students and instructors to have frequent and substantial interactions</p>







A common challenge for both models is the "course and a half syndrome" which is the tendency for instructors to add blended or flipped classroom components without reducing other components accordingly. Another common challenge is motivating students to complete the out-of-class activities; the online discussions and the video assignments.

Rubrics

Rubrics Part 1

Written by: Mia MacMeekin



Rubrics, Why Use them? Why Embrace?



Rubrics arc scoring charts. They display what is expected of the learner for the assignment. Rubrics are used to assess the learner on several points. Learners can use rubrics as a guide to meet all the requirements for the assignment. Learners should receive the rubric along with the assignment. Teachers should follow the rubric when creating and grading assignments.

Why Use Rubrics? What can it improve?

Improves Teaching

A rubric enables teachers to better focus each learning event to address the rubric elements.

Improves Expectations

Rubrics are tangible, in writing.

Improves self Evaluation

Rubrics allow learners to compare their work to the rubric before submission.

Improves Assessing

A rubric allows teachers to assess based on the expectations in the rubric.

Improves Directions

Rubrics provide teachers with a determined goal which they can more easily explain.

Improves Grading Quality

A rubric is specific and uniform for all learners, leaving little room for unfair grading.

Improves Performance

A rubric lets the learner know what is expected from the beginning.

Improves Assignment Quality

Rubrics specify each assignment element so the learner can focus.

Improves Feedback

Rubrics can he used as a guide for teachers to address, and give feedback for each issue in an assignment.

Rubrics

How to Use Rubrics? A guide for teachers

Understand

Understand the expectations that the rubric has layed out.

Disclose

Disclose that there is a rubric that will guide your grading.

Follow

Follow the rubric.

Write

Write rubrics that make sense for your assignment.

Give

Give out the rubric at the beginning of the unit or course

Tweak

After grading is done, tweak your rubric to meet your expectations for the next assignment.

Read

Read the rubric to the students and then ask if they have questions.

Copy & Paste

Copy and Paste the rubric at the end of the assignment and grade on the rubric.

Standardize

Have a set of standard rubrics to pull out and use throughout the year.



Robin Sharma

IDEAS
DON'T CHANGE
YOUR LIFE.
YOU CHANGE
YOUR LIFE,

THE POWER OF GREAT IDEAS.

VIA

ROBIN SHARMA

ODDBALLS GAVE US THE GREAT TREASURES OF THIS WORLD.

THE SPELLBINDING
ART. THE ADVANCED
SCIENCE AND THE HIGHEST
HUMANITIES.

WHY DIMINISH THE
'WEIRD ONES'
WHEN THEY
VIEW A VISION
BEYOND WHAT THE
MAJORITY CAN SEE?

Robin Sharma

"DISMISS YOUR CRITICS. DON'T GIVE THEM A VOTE ON YOUR DREAMS. THEY DON'T DESERVE ONE."

Robin Sharma



possible
A PROBLEM IS
ONLY A PROBLEM
WHEN
SEEN AS A PROBLEM

ROBIN SHARMA

STARTING STRONG IS GOOD. FINISHING STRONG IS EPIC.

#DAILYKICKSTA

ROBIN SHARMA

EACH TINY
EFFORT
BUILDS ON
THE NEXT,
SO THAT
BRICK BY BRICK,
MAGNIFICENT
THINGS CAN
BE CREATED.

Robin Sharma



ADVERSITY IS LEADERSHIP'S OPPORTUNITY TO EXPRESS MASTERY.

ROBIN SHARMA

JUST BECAUSE
YOU COULDN'T DO
SOMETHING
YESTERDAY DOESN'T
MEAN YOU CAN'T
ACHIEVE IT TODAY.
YOU'RE ONE DAY
STRONGER
TODAY!

ROBIN SHARMA

SHATTER ALL FEARS

Robin Sharma

Be all in or get all out. There is no halfway.

