

What is a Flipped Classroom?

The innovative pedagogical concept of the flipped classroom is an approach that focuses on learner-centred instruction, providing students with a wider range of learning opportunities in comparison to traditional teaching methodologies.

In this method of teaching, the conventional notion of classroom-based learning is inverted, introducing students to the learning material prior to class via technological resources, enabling classroom time to be used for critical analysis, discussion, and problem-solving activities facilitated by the teacher.

The Flipped Classroom

Why a Flipped Classroom is Effective

The flipped classroom model encompasses both passive and active learning in a variety of different ways. The passive learning portion of a flipped classroom takes place during the video lectures outside of class time, allowing time for active learning to occur within the classroom (Tucker, 2013). Collaborative learning also transpires as students work together, often in small groups, to solve problems and complete assignments. This type of interactive learning can create students who are more invested in their own learning, demonstrating a desire to succeed by meeting the expectations of their peers and holding one another accountable for their learning (Roberts, 2004).

Theoretical Framework of the Flipped Classroom

In order to investigate learning activity in a classroom, Jeremy F. Strayer (2007) created a diagram outlining the theoretical framework of the flipped classroom. As he explains, extensive use of educational technology is necessary to deliver course content outside of class (p.29), while active learning during class time is another critical feature. These two factors influence student learning environments in fundamental ways, as demonstrated by in the diagram, and together, these core ideas drive the conceptual framework for a flipped classroom.

How a Flipped Classroom Works

In a traditional learning environment, students acquire knowledge within the classroom and are then sent home to reflect on the information. This form of instruction tends to create passive learners, ones who absorb the information by hearing, seeing, and reading the content, rather than active learners, who are known to engage in analysis, synthesis, and evaluation of material (Minhas, Ghosh, & Swamy, 2012; Sams, 2013).

References

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F-L-I-P

Figure out where and when to flip your class.
Build out for classroom-based activities to enhance student learning.
Identify engaging content for exposure before class.
Engage students for the flipped approach by setting expectations.
The University of Texas at Austin Quick Start Guide

Workable environment - space, mode of delivery and resources for learning.
Learning culture - a learner-centred approach to encourage deep learning.
Behavioral context - high standards learning.
Motivated educator - who guides learning and continuously improves practice.
Four Pillars of Flip

What To Expect When Implementing a Flipped Classroom

Although the introduction of any new teaching model can seem daunting, the flipped classroom approach emphasizes the importance of active student learning in a more proactive way. The shift from presenter to facilitator in terms of teacher roles can prove to be challenging and calls for a new development of competencies, but, as Professor Jennifer Eblender from the University of Texas at Austin highlights, "I have emerged from this experience a proponent of the flipped-class model—but also a careful and candid one." (The Chronicle of Higher Education 2013).

Active Learning

The flipped classroom model is motivated by a desire to provide students with a chance to learn through active participation in the classroom. With Jean Piaget's (1970) idea of cognitive development in observance, it can be said that the flipped classroom ultimately provides opportunities for students to learn through a variety of activities both within and outside of the classroom setting.

Active learning works to bridge the gap between the lessons obtained within the classroom and those discovered in the 'outside world,' demonstrating the importance of personal experience. A barrier to learning can occur when students as, "why am I doing this?" yet continue the activity without finding an adequate answer. It is not enough for students to solely participate in the activity; they must also understand the reasons behind the tasks they are completing.

In order to ensure success with the flipped classroom model, students must be provided with a space where they can reflect on their own thinking and participate in learning activities that help them fully develop their understanding of course content.

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Active learning works to bridge the gap between the lessons obtained within the classroom and those discovered in the 'outside world,' demonstrating the importance of personal experience. A barrier to learning can occur when students ask, "why am I doing this?" yet continue the activity without finding an adequate answer. It is not enough for students to solely participate in the activity; they must also understand the reasons behind the tasks they are completing.

In order to ensure success with the flipped classroom model, students must be provided with a space where they can reflect on their own thinking and participate in learning activities that help them fully develop their understanding of course content.

THE FLIPPED CLASSROOM

What is a flipped classroom?

In a flipped classroom, students watch video lectures at home and do their homework in class. This allows students to learn at their own pace and get help from their teacher when they need it.

A Theoretical Framework

This model is based on the idea that students learn best when they are actively engaged in the learning process. It is a model that is based on the idea that students learn best when they are actively engaged in the learning process.



How Does A Flipped Classroom Work?

INVERTING THE CLASSROOM



- Students watch video lectures at home and do their homework in class.
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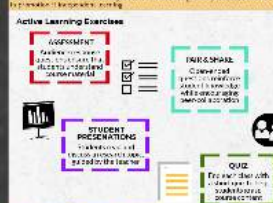
Why Is A Flipped Classroom Effective?

A flipped classroom is effective because it allows students to learn at their own pace and get help from their teacher when they need it. It is a model that is based on the idea that students learn best when they are actively engaged in the learning process.



What Is Active Learning?

Active learning is a teaching method that encourages students to participate in the learning process. It is a model that is based on the idea that students learn best when they are actively engaged in the learning process.



Six Tips To Start The Flip

1. Identify your goals and objectives.
2. Select your content and create your videos.
3. Design your activities and assessments.
4. Implement your plan and monitor your progress.
5. Evaluate your results and make adjustments.
6. Share your experiences with others.



Related Resources

- 1. [Flipped Classroom: A Guide for Teachers](#) by John D. Bransford
- 2. [The Flipped Classroom: A Guide for Teachers](#) by John D. Bransford
- 3. [The Flipped Classroom: A Guide for Teachers](#) by John D. Bransford
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THE FLIPPED CLASSROOM

Turning Traditional Education Upside Down

A Teacher's Guide

What is a flipped classroom?

The flipped classroom inverts traditional teaching practices to create more interactive methods of learning by delivering instruction online outside of the classroom and using class time for teacher-guided problem solving, analysis, and in-class discussions.



Prezi

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Educational technology and active learning are two key components of the flipped classroom model as both have fundamental influence on student learning environments.



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Classroom Flip

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How the Flipped Classroom Came to Be

In the mid-2000s, teachers Jonathan Bergman and Aaron Sams from Woodland Park High School (Woodland Park, CO) discovered software to record PowerPoint presentations and posted their lectures online for students who missed class. With the help of Khan Academy founder, Salman Khan (TED 2011), this method of 'flipped learning' gained popularity among the educational world, and teachers began using online videos and other methods of technological interactions to teach students outside of the classroom, reserving class time for collaborative work and critical thinking exercises.

The concept of the flipped classroom was popularized by Bergman and Sams in their 2012 book "Flipped Classroom: How to Turn Your Classroom into a 21st Century Learning Environment". The book describes how they used video to record their lectures and post them online for students to watch at their own pace. This allowed them to spend more time in class on collaborative work and critical thinking exercises.

As this model later expanded to incorporate technological elements, the importance of Learning Management Systems was emphasized and tools such as Moodle gained popularity. With this shift, the concept of the professor being the "sage on the stage" (King, 1993) evolved into the "guide on the side" (Noun, 2016, p.8), creating a more holistic approach to education. In order to pave way for student-centred active learning strategies" (Noun, 2016, p.8).



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The concept of the flipped classroom goes back much farther than this, however. In the 1990s, Harvard Professor, Eric Mazur, developed a unique model of 'peer instruction', which he called "just in time teaching." This method provided students with course material prior to class and encouraged them to reflect on the content at home and arrive prepared to engage in deeper cognitive thinking through peer interaction and teacher-guided discussion (Crouch & Mazur, 2001).

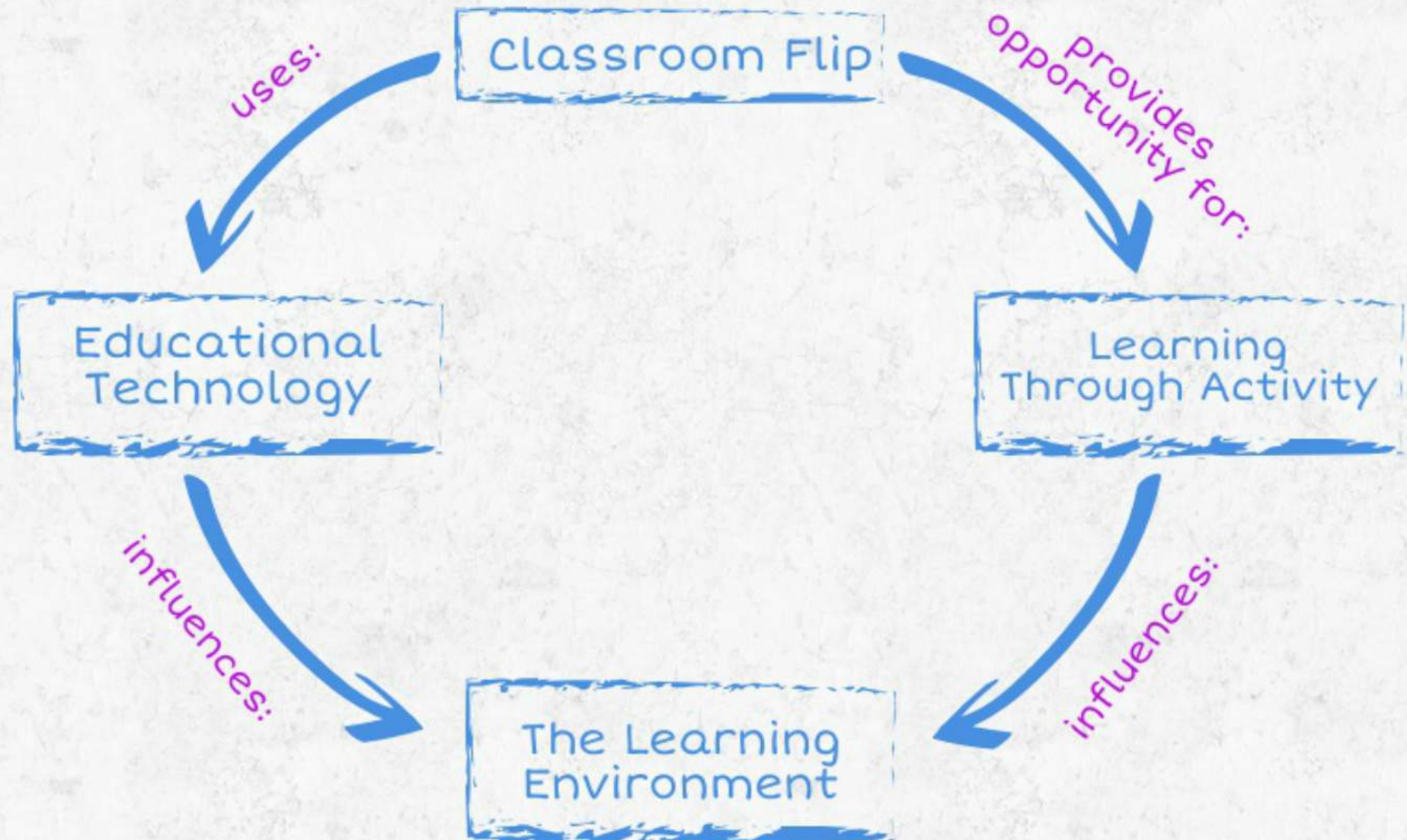
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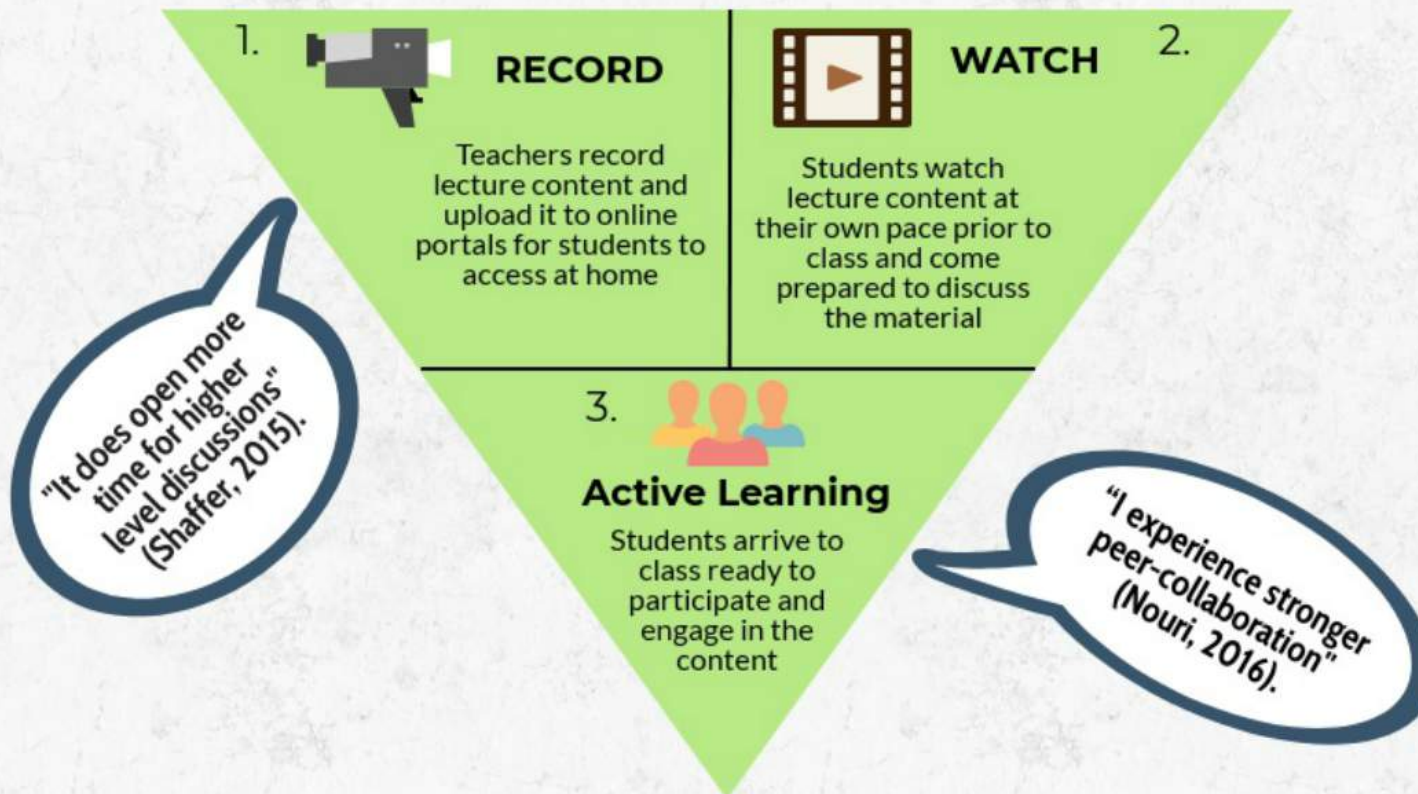


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level
(Shaffer,

Active Learning

Students arrive to class ready to participate and engage in the content

"I experience stronger peer-collaboration"
(Nouri, 2016).

- Students watch lectures at home and communicate through online portals
- Problem-solving, analysis, and discussions occur in the classroom
- All learning is student-focused and teacher-guided

Why Is A Flipped Classroom Effective?

Constructivism is a learning theory that explains how people acquire knowledge, stating that humans learn from direct personal experiences. The frequency of these experiences can be increased in a flipped classroom through the use of activities, discussions, and discussions.

NO CRAMMING

Exam time is less stressful for



- Students watch lectures at home and communicate through online platforms
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Role of the Teacher

As noted, the role of the teacher also transforms from "sage on the stage" (King, 1993) to "guide on the side" (Nouri, 2016, p.8), creating a more open learning environment. As Paulo Freire states, education "should not involve one person acting on another, but rather people working with each other," (Smith, 2012, p. 1).

Flipped VS. Traditional

Although a great deal of research has yet to be done on the concept of the flipped classroom, Jeremy F. Strayer (2007) demonstrated that students in a flipped classroom environment displayed higher levels of innovation and cooperation than students from a traditional classroom setting.

Scaffolding

Information scaffolding is a key component of any classroom, but using the flipped model allows for teachers to gradually withdraw support as students become more independent throughout each activity (Hogan & Pressley, 1997). Through this process, students become more aware of their own learning processes and begin to make relevant connections to the 'outside world' (Strayer, 2007).

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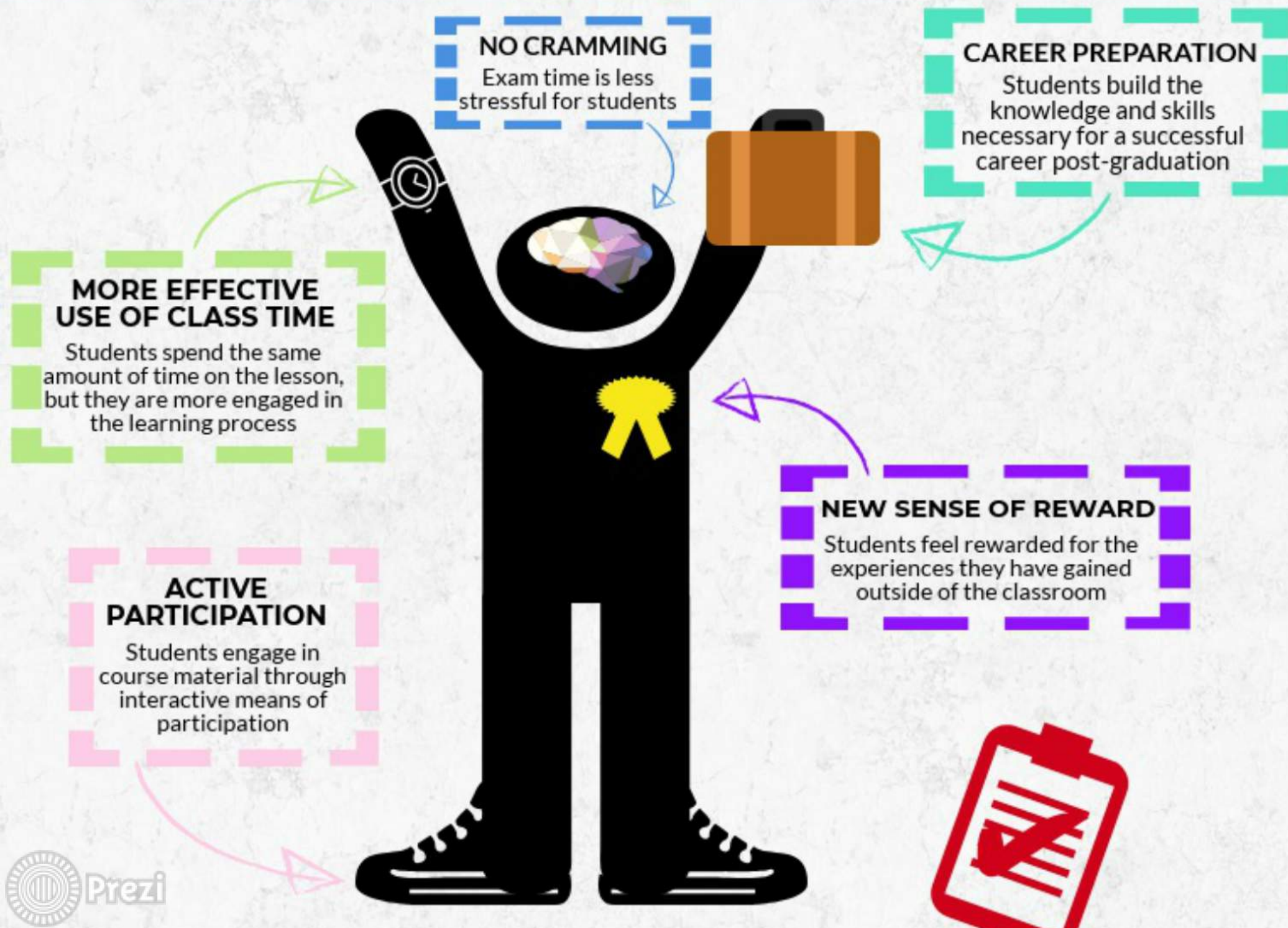
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PARTICIPATION

Students engage in course material through interactive means of participation



Students feel rewarded for the experiences they have gained outside of the classroom



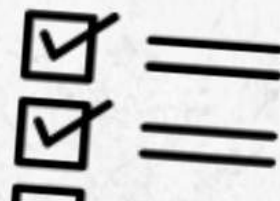
What Is Active Learning?

Active learning involves any instructional method that engages students in the learning process, requiring meaningful learning activities that involve critical thinking processes. This form of educational scaffolding allows the teacher to gradually withdraw assistance in promotion of independent learning.

Active Learning Exercises

ASSESSMENT

Audience response questions ensure that students understand course material



PAIR & SHARE

Open-ended questions reinforce

Active Learning

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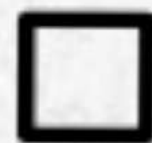
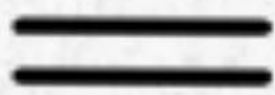
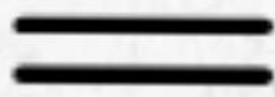


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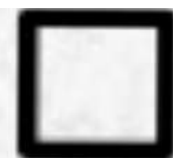
Audience response questions ensure that students understand course material



PAIR & SHARE

Open-ended
questions reinforce
student knowledge
while encouraging
peer-collaboration





STUDENT PRESENTATIONS

Students read and
discuss a research topic,
guided by the teacher



QUIZ

End each class with
a short quiz to help
students grasp
course content

Tip #1

The following questions might help you decide which areas you can implement a flip:

- Are there any knowledge or application activities that you rarely have time to complete during class?
- Which concepts or topics do students struggle the most to understand and would more discussion time and content analysis be valuable?
- For which topics would students benefit from the opportunity to apply concepts under the expert guidance of the teacher?

Tip #3

The purpose of the flipped classroom model is to transform the application-oriented homework into the classroom and move the 'lecture' home. The after-class portion of the lesson may consist of a wide variety of activities, including completing the work started in class, reading deeper about the topic, practicing learned material individually, or working together on a larger assignment that extends over several class periods.



Tip #4

Due to the dynamic environment created within a flipped classroom, it is essential for students to come prepared for class. Once you have determined how students will be asked to apply their knowledge and skills during class time, consider the materials that will need to be read or viewed in advance. Although technological adaptations are most commonly used in the flipped classroom model, traditional materials can be repurposed as well in order to accommodate those students who may not have access to technology outside of the classroom (i.e. reading textbook chapters or relevant articles).

In the beginning, keep the flip simple by either relying on current available resources or using existing online content rather than creating your own. Once you and your students have mastered the format of the flipped classroom, explore the various methods that can be incorporated and the learning opportunities it has to offer.

Remember, if you're a student, you should be able to find the resources you need to complete your assignments. If you're a teacher, you should be able to find the resources you need to create your flipped classroom.

Tip #5

One of the challenges of a flipped classroom is that students are responsible for completing tasks without the supervision of the teacher. As it's difficult to know whether students will actually complete the assigned tasks prior to class, it is very important to hold them accountable. A few ways to do this include quizzes, discussion questions, or journal writing. Although no method is foolproof, it puts responsibility on the student and works to create more independent learners, a vital trait to possess in today's ever-changing society.

Tip #2

There are a number of instructional approaches that can be used to create engaging class environments. A few of these collaboration and problem-solving structures include:

Small Groups
Students are divided into small groups to work on a task or project. This structure allows for peer-to-peer learning and collaboration.

Peer Review
Students are given the opportunity to review and provide feedback on each other's work. This structure helps students develop critical thinking and communication skills.

Problem Solving
Students are presented with a complex problem and are encouraged to work together to find a solution. This structure promotes teamwork and problem-solving skills.

Project-Based Learning
Students are given a project to complete over a period of time. This structure allows students to apply their knowledge and skills to a real-world problem.

Flipped Classroom
Students are given the opportunity to learn at their own pace and in their own environment. This structure allows for personalized learning and flexibility.

Tip #6

In order to ensure a positive outcome with the flipped classroom model, determine how the content and skills learned before and during class will prepare students for extending their learning after class. Students gain experience through the application of course content during class time, but they may also require additional practice after class. Making connections to outside content and extending learning beyond the classroom is a critical component to the students' overall success.

Remember, if you're a student, you should be able to find the resources you need to complete your assignments. If you're a teacher, you should be able to find the resources you need to create your flipped classroom.

Adaptions from Faculty Innovation Center, University of Texas

Six Tips To Start The Flip

1 Identify which areas the flipped classroom model makes the most sense to use.

2 Spend class time engaging

4



Prezi

Tip #1

The following questions might help you decide which areas you can implement a flip:

- Are there any knowledge or application activities that you rarely have time to complete during class?
- Which concepts or topics do students struggle the most to understand and would more discussion time and content analysis be valuable?
- For which topics would students benefit from the opportunity to apply concepts under the expert guidance of the teacher?

1

the flipped classroom model makes the most sense to use.

2

Spend class time engaging students in application activities with provided feedback.



3

Clarify connections between the learning that happens inside and outside of the classroom.

Tip #2

There are a number of instructional approaches that can be used to create engaging class environments. A few of these collaboration and problem-solving structures include:

Peer Instruction

Students arrive to class prepared to reflect on their own learning and give instructors feedback about what they found confusing or difficult about the content. During class, students experience a series of lessons interspersed with peer discussion, encouraging participation and collaboration.

Case-Based Learning (CBL)

Students work in small groups with guidance from the instructor to analyze and discuss a designated problem and evaluate a given course of action to develop a solution.

Team-based Learning (TBL)

Students are provided with course content prior to class and engage in introductory activities to assess their knowledge (i.e. individual or team quizzes, group discussions). Students work collaboratively to get immediate feedback on their knowledge while instructors address gaps in understanding.

Classroom Response System (CRS)

Technology is leveraged to provide instructors with the ability to immediately gather and display student responses to particular questions and provide feedback based on the results.

Process-Oriented Guided Inquiry Learning (POGIL)

Activities that allow students to explore data or information guided by questions, generate conclusions based on the data, and apply these concepts in new situations. The activities are structured to develop process skills, critical thinking, problem solving and collaboration.

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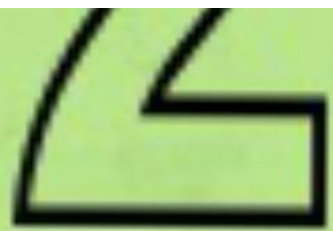
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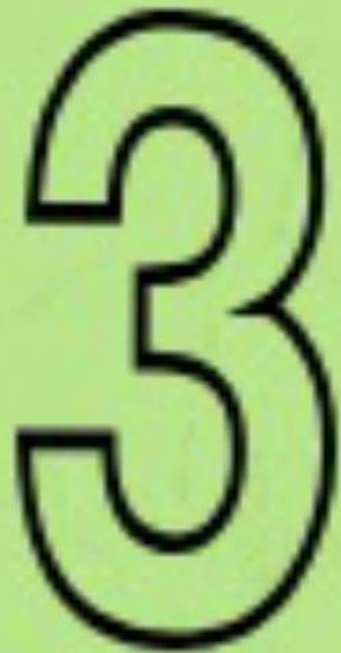
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Tip #3

The purpose of the flipped classroom model is to transform the application-oriented 'homework' into the classroom and move the 'lecture' home. The after-class portion of the lesson may consist of a wide variety of activities, including completing the work started in class, reading deeper about the topic, practicing learned material individually, or working together on a larger assignment that extends over several class periods.

The following questions might help you get started in the process of flipping your classroom:

- What do I want my students to know and be able to do as a result of completing this portion of the course? How does this lesson fit into the 'bigger picture' of the unit, the course, and the students' lives?
- Is there any part of the current 'homework assignment' that could be completed during class time to help students practice the application of the content?
- Are there any in-class learning activities that are being rushed due to time constraints?
- What practice do students need during class time to prepare them for the larger portion of the assignment that is to be completed after class? Will students make the connection between what is happening in class and the assignment they are working on outside of class time?
- What content do students need to know prior to successfully engaging in the learning activity during class?

Remember

With the flipped classroom model, the after-class portion from the previous lesson occurs at the same time as the before-class portion of the next lesson, so it is important that students are not overwhelmed with material.

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4 Adapt your materials to be accessible to students outside of the classroom at any point in time.

5 Hold students accountable for completing design tasks outside of the classroom.

Tip #4

Due to the dynamic environment created within a flipped classroom, it is essential for students to come prepared for class. Once you have determined how students will be asked to apply their knowledge and skills during class time, consider the materials that will need to be read or viewed in advance. Although technological adaptations are most commonly used in the flipped classroom model, traditional materials can be repurposed as well in order to accommodate those students who may not have access to technology outside of the classroom (i.e. reading textbook chapters or relevant articles).

In the beginning, keep the flip simple by either relying on current available resources or using existing online content rather than creating your own. Once you and your students have mastered the format of the flipped classroom, explore the various methods that can be incorporated and the learning opportunities it has to offer.

Remember, whatever direction you choose to go with your flipped classroom, however, be sure to hold students accountable for completing the pre-class assignment and provide them with a way to pose questions about the content outside of class.

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5

Hold students accountable
for completing designated
tasks outside of class time.

Extend learning

activities beyond the

Tip #5

One of the challenges of a flipped classroom is that students are responsible for completing tasks without the supervision of the teacher. As it's difficult to know whether students will actually complete the assigned tasks prior to class, it is very important to hold them accountable. A few ways to do this include quizzes, discussion questions, or journal writing. Although no method is foolproof, it puts responsibility on the student and works to create more independent learners, a vital trait to possess in today's ever-changing society.

tasks outside of class time.

6 Extend learning opportunities beyond the classroom through individual and collaborative practice.

Tip #6

In order to ensure a positive outcome with the flipped classroom model, determine how the content and skills learned before and during class will prepare students for extending their learning after class. Students gain experience through the application of course content during class time, but they may also require additional practice after class. Making connections to outside content and extending learning beyond the classroom is a critical component to the students' overall success.

Student understanding can be deepened through the following ideas:

- Discussion boards or social media (for academic purposes) can be used to elaborate on ideas developed in class
- Additional problems can be presented through online portals for students to practice acquired knowledge outside of the classroom. Online assessment systems can also be used to provide immediate feedback to students.
- Create assignments that require students to apply the skills and knowledge developed in class in a new way that was not discussed during class time
- Assign additional readings that further expand upon the concepts discussed in class
- Encourage students to create informal learning groups

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Adaptions from Faculty Innovation Center, University of Texas

3 between the learning that happens inside and outside of the classroom.

6 opportunities beyond the classroom through individual and collaborative practice.



Helpful Resources

Articles:

- One high school English teacher: On his way to a flipped classroom - Shelley Shaffer (2015)
- The Effectiveness of the Flipped Classroom - Raymond Szparagowski (2014)
- The Effects of the Classroom Flip on the Learning Environment - Jeremy F. Strayer (2007)
- The flipped classroom: for active, effective and increased learning - Jalal Nouri (2016)

Books:

- Flip Your Classroom: Reaching Every Student in Every Class Every Day - Johnathon Bergmann & Aaron Sams (2012)
- The Flipped Classroom: Practice and Practices in Higher Education - Carl Reidsema, et al. (2017)

Videos:

- Blending technology and classroom learning: Jessie Woolley-Wilson at TEDxRainier (2012)
- Flipping the classroom - my journey to the other side: Jenn Williams at TEDxRockyViewSchoolsED (2014)

Created by: Ali Weslake

F-L-I-P

- Figure out where and when to flip your class
- Look out for classroom based activities to enhance students learning
- Identify engaging content for exposure before class
- Prepare students for the flipped approach by setting expectations

The University of Texas at Austin 'Quick Start Guide'

- Flexible environment – space, mode of delivery and timelines for learning;
- Learning culture – a learner centred approach to encourage deep learning;
- Intentional content – that maximises learning;
- Professional educator – who guides learning and continuously improves practice.

Four Pillars of Flip

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Four Pillars of Flip

What To Expect When Implementing a Flipped Classroom

Although the introduction of any new teaching model can seem disorienting, the flipped classroom approach emphasizes the importance of active student-centred learning in which students are expected to manage their own learning in a more proactive way. The shift from presenter to facilitator in terms of teacher roles can prove to be challenging and calls for a new development of competencies, but, as Professor Jennifer Ebbeler from the University of Texas at Austin highlights, “I have emerged from this experience a proponent of the flipped-class model—but also a careful and candid one.” (The Chronicle of Higher Education 2013).

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Figure out where and when to flip your
Look out for classroom based activities
Identify engaging content for exposure
Prepare students for the flipped approach
The University of Texas at Austin

What To Expect When

Although the introduction of the flipped classroom is disorienting, the flipped classroom is a powerful tool for the importance of active student learning. Students are expected to manage their own learning. The shift from pre-lecture to post-lecture roles can prove to be a challenge for both roles of competencies, but the University of Texas at Austin has experience a proper and careful and candid

Created by: Ali Weslake