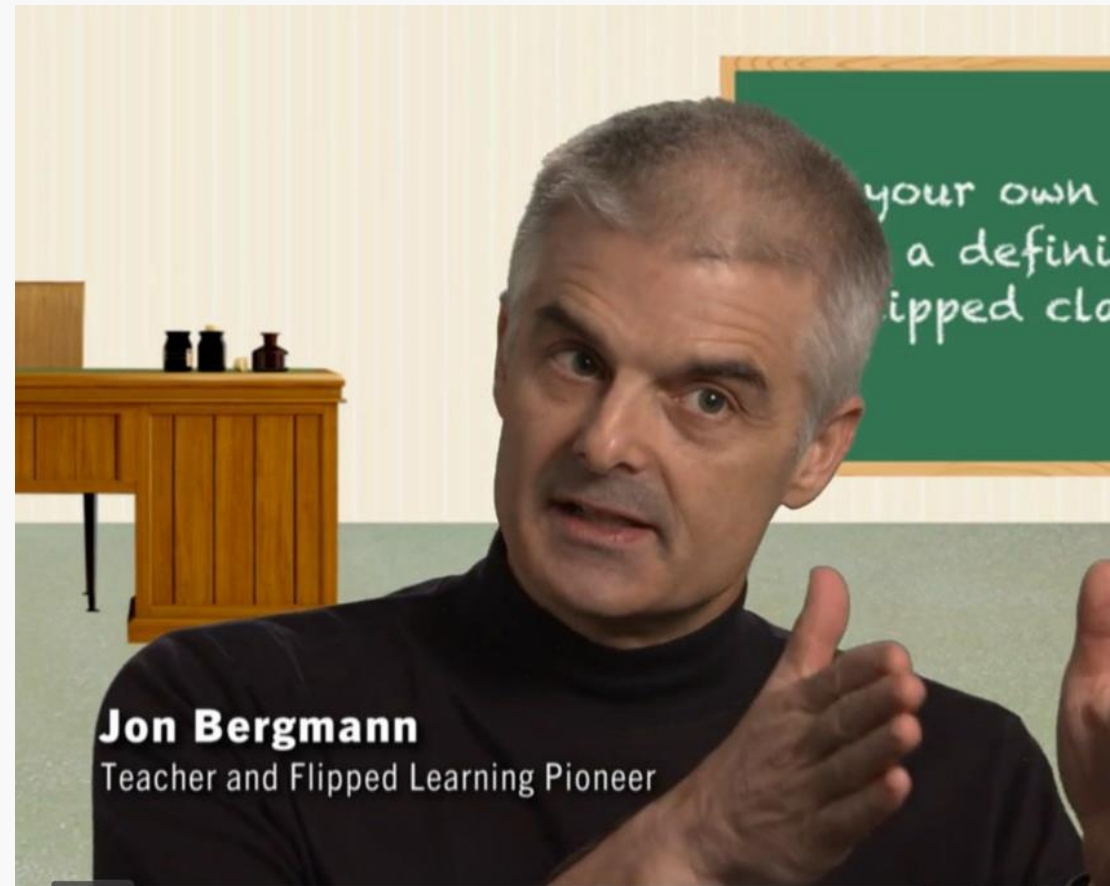


中国教育发展基金会
戴尔“互联创未来”项目

翻转课堂作品征集要求

常州市教育科学研究院 蒯超英
2017年04月20日 北京



主要交流内容

1. 翻转课堂作品征集要求

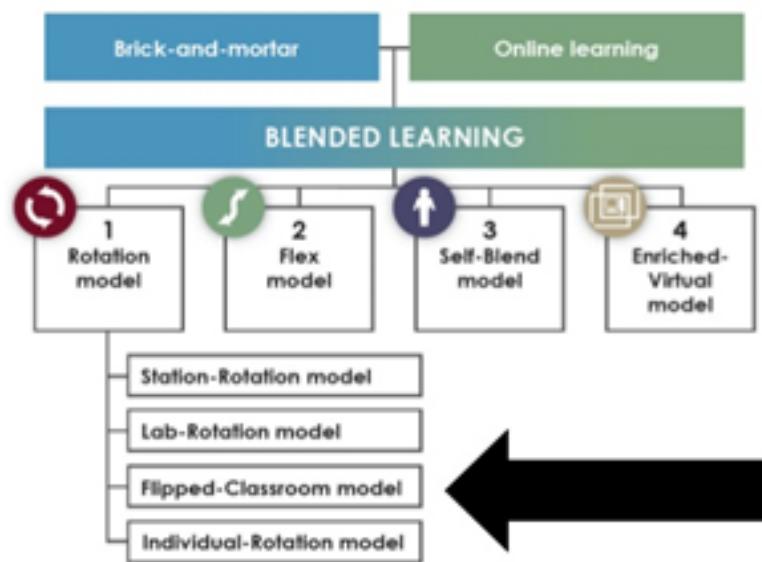
如何创作作品

2. 准确理解翻转课堂

3. 解决本土化的问题

4. 翻转课堂设计建议

Flipped Classroom vs Blended Learning



<http://www.innosightinstitute.org/innosight/wp-content/uploads/2012/05/Classifying-K-12-blended-learning2.pdf>

1.1 “互联创未来”项目：项目学习和翻转课堂

项目学习 →



1. High Technology High School



Flipped



In Class

At Home



翻转课堂

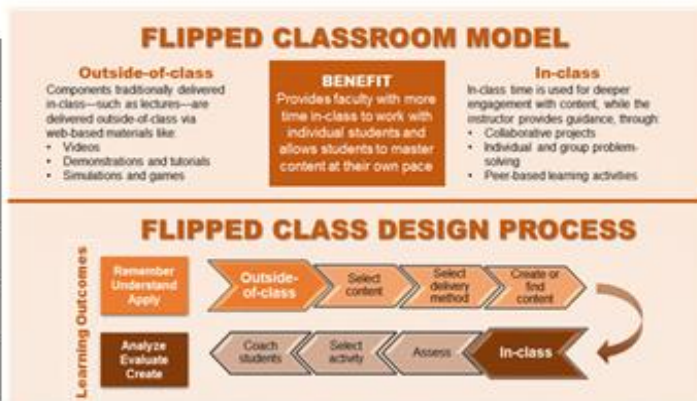
1.2 翻转课堂的基本要素

翻转课堂的基本概念 Flipped Classroom

翻转课堂就是在信息化环境中，课程教师提供以教学视频为主要形式的学习资源，学生在上课前观看和学习教学视频等学习资源，师生在课堂上完成作业、答疑、协作探究和互动交流等活动的新型教学模式。

表 2.2.1 传统课堂与翻转课堂各要素的对比情况

	传统课堂	翻转课堂
教师	知识传授者、课堂管理者	学习指导者、促进者
学生	被动接受者	主动研究者和学习者
教学形式	课堂讲解+课后作业	课前学习+课堂探究
课堂内容	知识讲解传授	问题探究
技术应用	内容展示	自主学习、交流反思、协作讨论工具



翻转课堂的基本要素

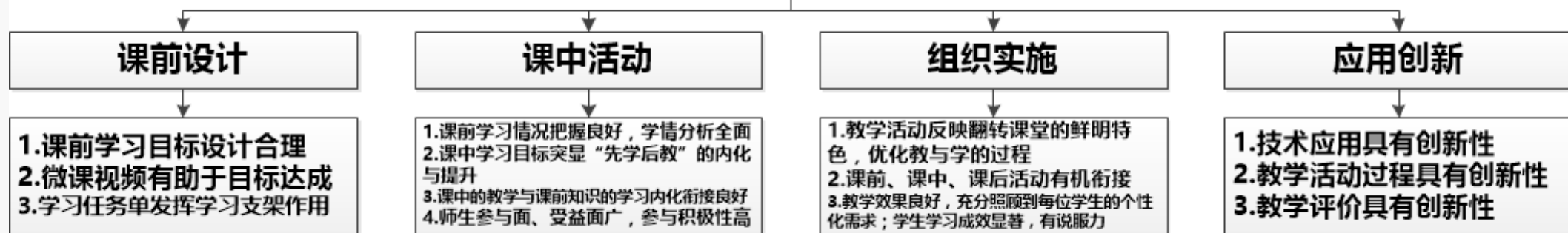
翻转课堂颠倒了传统课堂的教学过程，使教学过程由传统的“先教后学”转变为技术支持的“先学后教”，其本质是应用技术优化传统的教学过程，即对知识传授的两个主要环节：“知识传授”与“知识内化”进行了优化。翻转课堂的实施具有三个基本要素，分别是课程资源、教学活动以及支撑环境。



1.3 翻转课堂作品征集要求

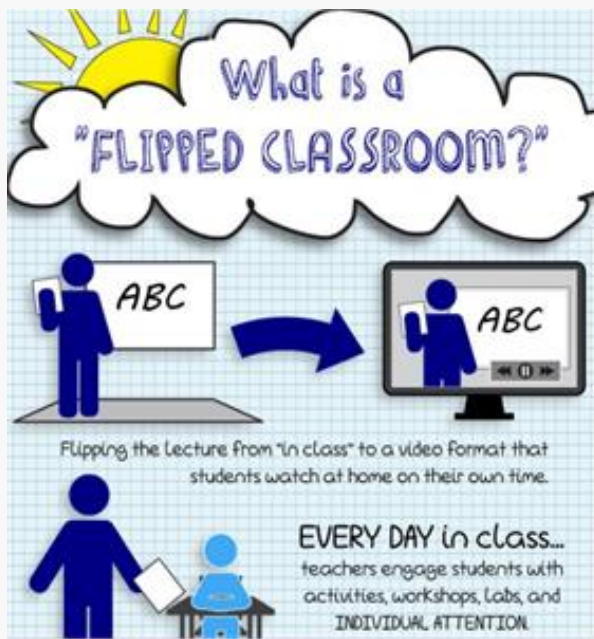


2017年中国教育发展基金会-戴尔“互联创未来”项目翻转课堂作品推荐要求

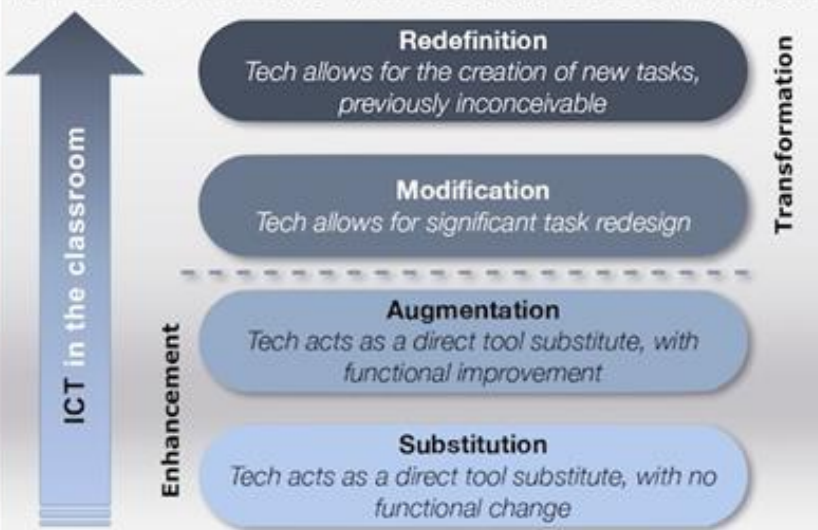


工作依据：中央电化教育馆关于开展2017年中国教育发展基金会-戴尔“互联创未来”项目作品征集活动的通知（教电馆[2017]31号）

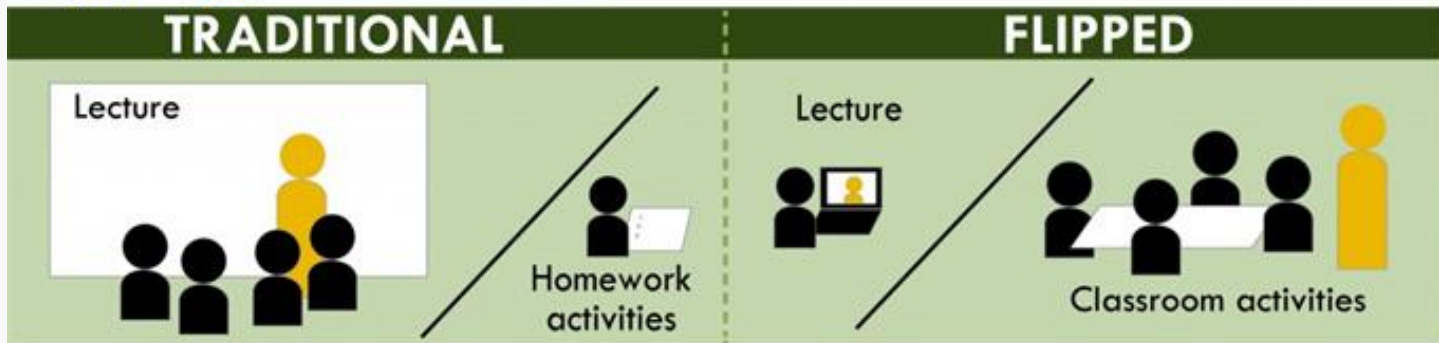
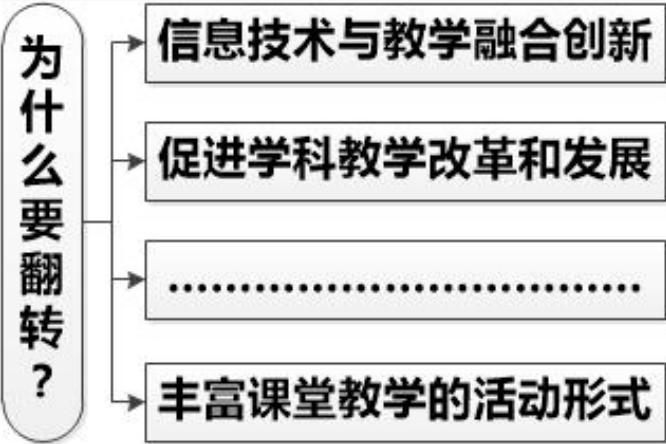
问题：我们为什么对翻转课堂有兴趣？



SAMR ... it's all about innovation



SAMR: the Process View - Ruben R. Puentodura, Ph.D.



2.1 学校教学改革和发展的走向：个性化学习



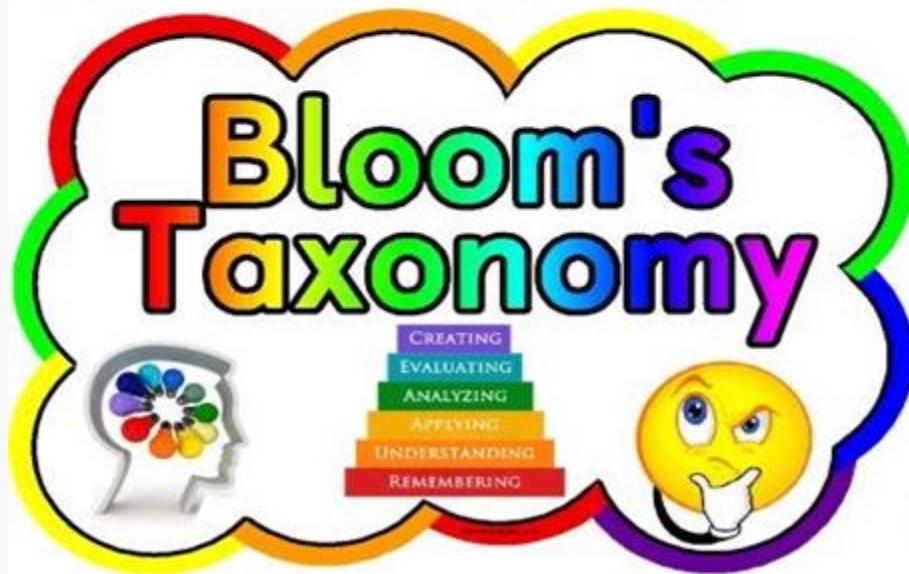
BRIDGE 234 to excellence

Our new strategic plan is designed to **BRIDGE** our strong tradition of excellence with the changing needs of our students in the 21st century.

Year 1 (2013-2014)	Year 2 (2014-2015)	Year 3 (2015-2016)	Year 4 (2016-2017)	Year 5 (2017-2018)
Setting the Foundation Much work is being done to develop new, modern curriculum to prepare students for an ever-changing world.	Building the Structure We're implementing new programs, further developing our staff, and introducing exciting new opportunities for students, including elementary world language and art/design. Students and families are beginning to see and feel our new vision as it comes to life.	Adding the Details With a modern new curriculum in place and extensive teacher training underway, more focus is placed on developing students' passions and meeting their individual social, emotional and health needs. The community is taking ownership of our schools and becoming more involved in educating and supporting our students.	Putting On the Finishing Touches Our focus is now on developing personalized learning plans for each student, which take into account their individual needs, goals, passions and strengths. We're working closely with parents to support students' academic, social, emotional and health needs.	Traveling Our New Bridge We're evaluating what is working well and celebrating the successes of the previous four years.



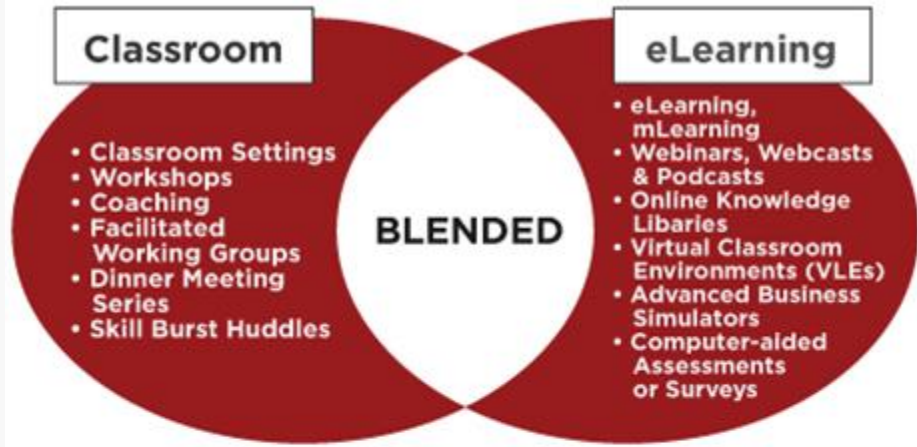
2.2 基于课堂教学的个性化学习的理论支撑



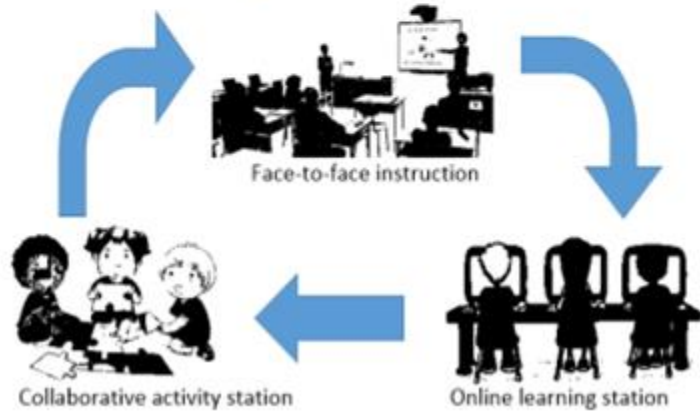
	时间	掌握程度
传统教学	常量	变量
掌握学习	变量	常量



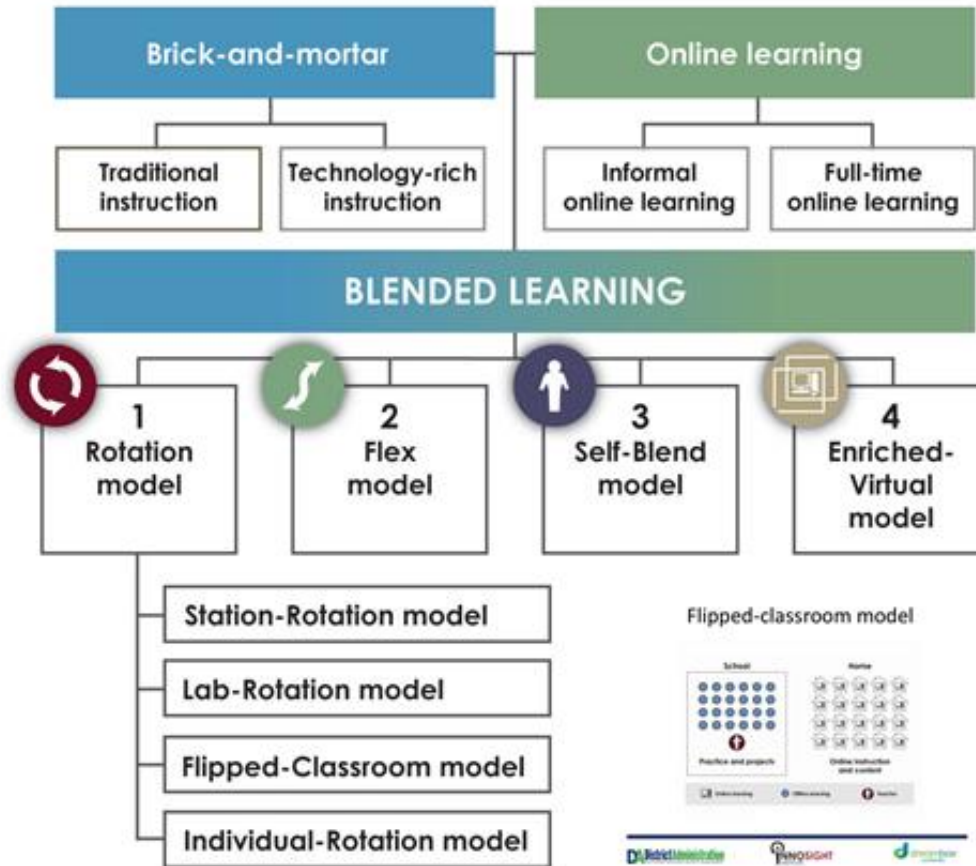
2.3 学生学习时间成了变量，教学活动如何组织？



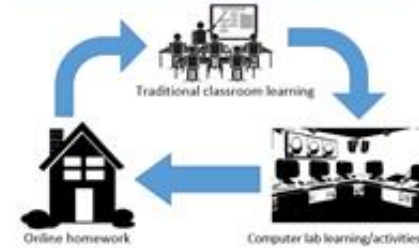
Blended Learning Model: Station Rotation



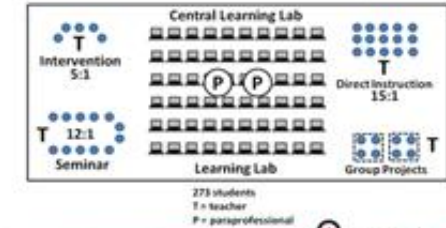
2.4 混合学习模型 (Blended Learning Models)



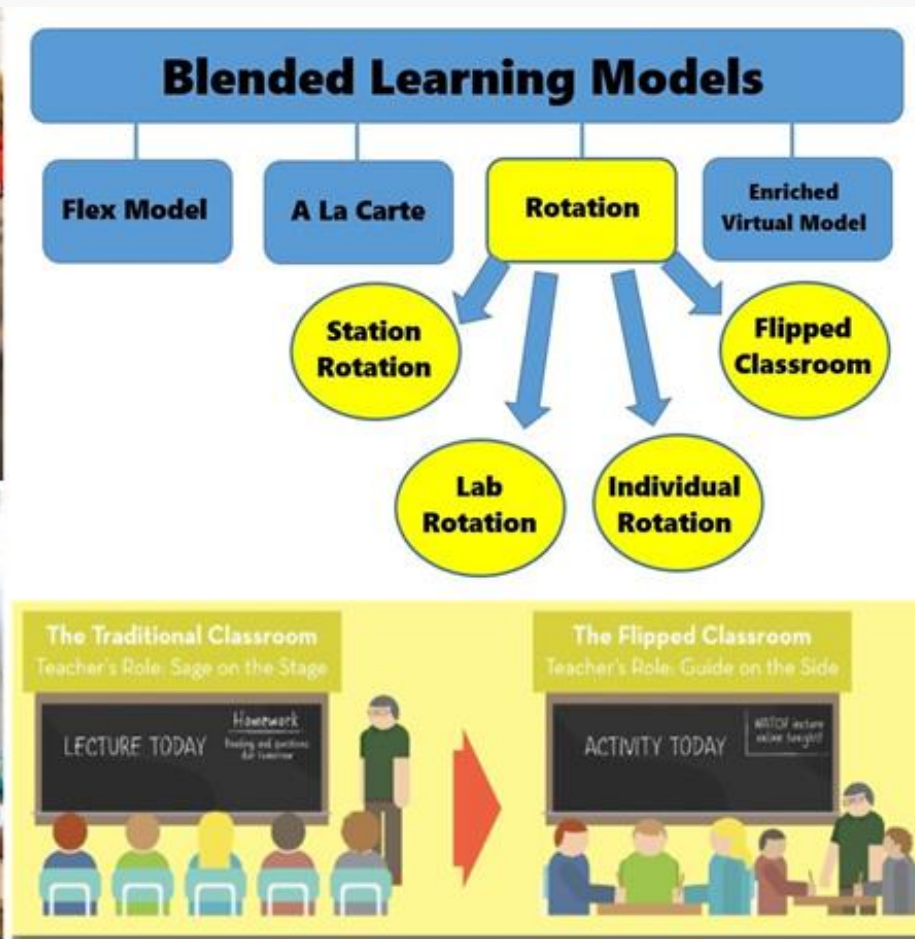
Blended Learning Model: Lab Rotation



Individual-rotation model: Carpe Diem



2.5 翻转课堂是混合学习的一种类型



4 signs you have a real flipped classroom

You've recorded your lectures so your students can learn from them at home. But that's only the first step on the path to a flipped classroom. 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? Project-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 they're into and ask for their 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.

Learn something new about ed tech today. Visit iste.org/EdTechHub

问题：翻转课堂“翻转”了什么？

The Flipped Classroom

THE TRADITIONAL CLASSROOM

Teacher's role: Sage on stage



THE FLIPPED CLASSROOM

Teacher's role: guide on the side

- 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



SOURCE: Knewton

DESERET NEWS GRAPHIC

班级授课制度

学生学习内容

学科教学目标

不变

变化

面向每个学生

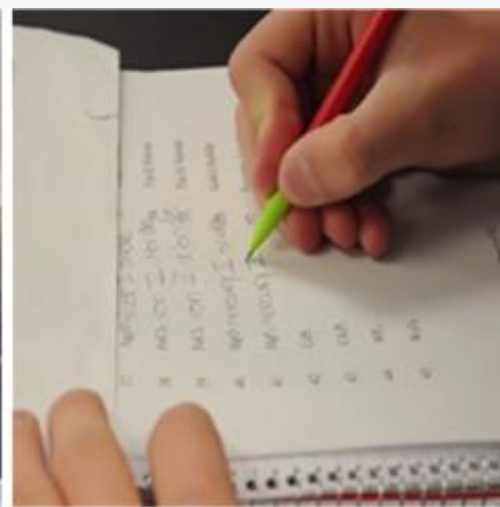
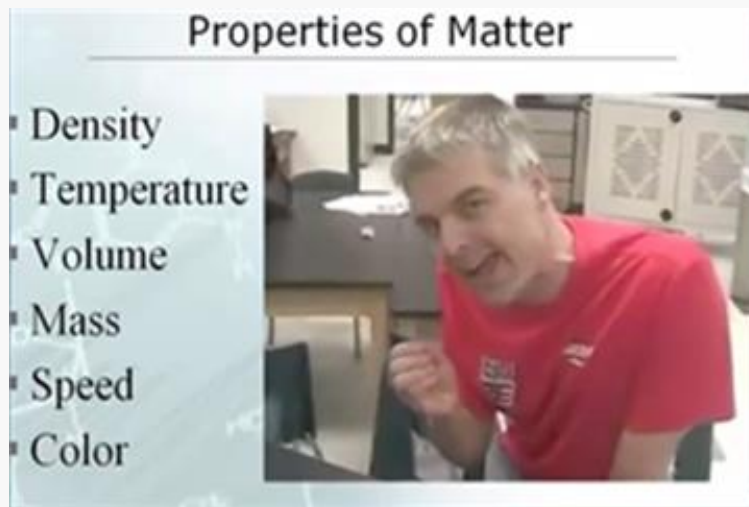
目标分段实现

.....

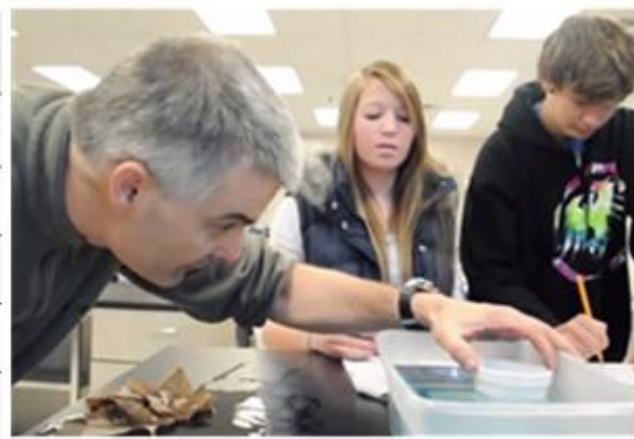
ICT在翻转课堂具体实施过程中究竟起什么作用？



3.1 Aaron and Bergman是如何实施翻转课堂的



传统课堂		翻转课堂	
活动	时间	活动	时间
热身活动	5m	热身活动	5m
学生作业问题梳理	20m	教学视频学习检查	10m
讲授新知	30-40m	个性化学习，针对性教学	75m
个性化学习，针对性教学	20-35m		



3.2 “成功” 不能简单地 “复制”

The 6-Step Guide To FLIPPING YOUR CLASSROOM

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

- 1 PLAN**
Figured out what you want to flip? Good. Now let's get started with the flip first.
- 2 RECORD**
Instead of relying on the lecture, create a video of your lesson. Make sure it's a good quality and is easy to watch on a computer or tablet.
- 3 SHARE**
Send the video to your students. Make it easy for them to watch. You can use a video hosting site like YouTube or Vimeo.

Want more info about each step? Head over to DAILYGENIUS.COM/FLIPPED

- 4 CHANGE**
Now that your students have viewed your lesson, they're prepared to learn. It's time to get started with the flip first.
- 5 GROUP**
An effective way to increase the impact of your flipped lesson is to group students who struggle with a particular topic. Let them work together to learn.
- 6 REGROUP**
Get the most out of your flipped lesson by regrouping students. Let them work together to learn.

NOW

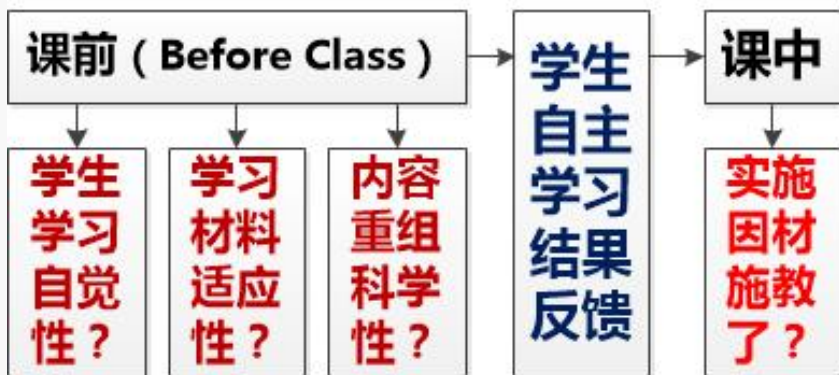
- REVIEW**
Get the most out of your flipped lesson by reviewing the material.
- REVISE**
Get the most out of your flipped lesson by revising the material.
- REPEAT**
Get the most out of your flipped lesson by repeating the material.

DAILYGENIUS
LIVING LEARNING THAT WORKS



3.3 翻转课堂本土化过程中存在的问题

翻转课堂 (Flipped Classroom)
本土化存在问题：文化差异和大班教学



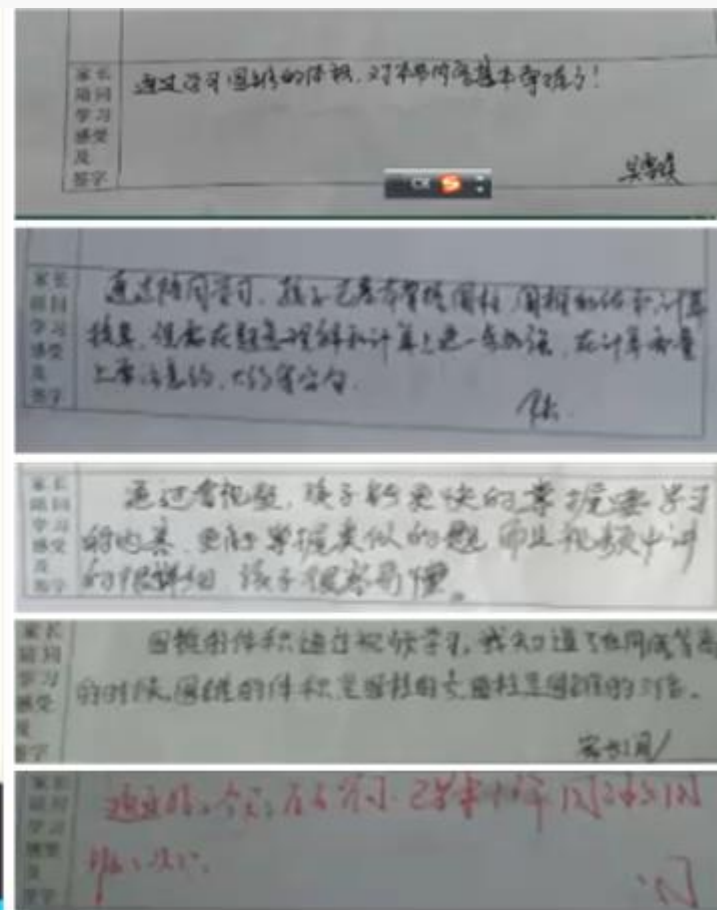
3.4.1 组织学生有效开展自主学习策略：家长督促

Bloom's taxonomy and the flipped classroom

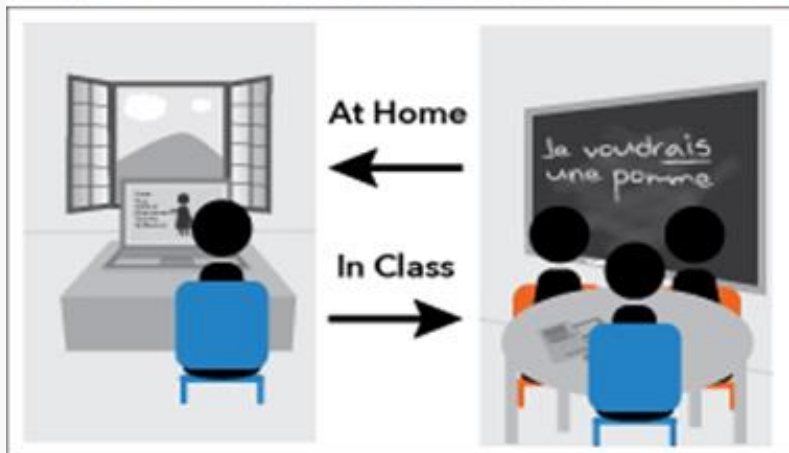
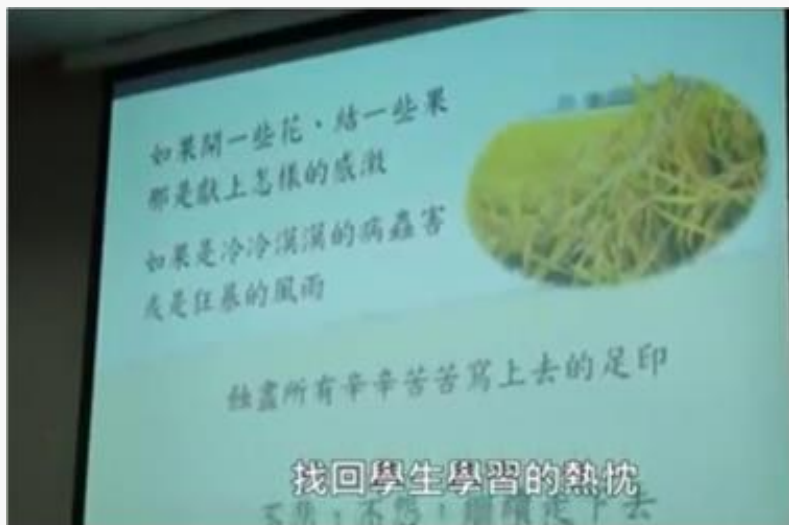


Enabling us to spend more class time at the upper end of the taxonomy, with tasks that ask students to apply, analyse, evaluate, and create

Students viewing video content prior to lessons allow us to shift the lower levels of Bloom's taxonomy out of the class



3.4.2 组织学生有效开展自主学习策略：合作探究



3.5 利用反馈系统了解学生自主学习情况



Class Statistics

35 Students 20,681,560 Class Energy Points

- Progress Report: Shows you which exercises your class has worked on and completed. [Start](#) [Proficient](#) [Review](#) [Struggling](#)
- Progress Summary
- Daily Activity Report
- Exercise Progress Over Time
- Class Points per Minute
- Goals

Progress Report

Showing Only: student or exercise Struggling Watched on in last

Student Progress	Multiplying decimals	Order of operations	Greater common divisor	Equivalent fractions	Exponents 1	Pre-algebra challenge	Recognizing fractions	Equivalent fractions 2
Student 1	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 2	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 3	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 4	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 5	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 6	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 7	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 8	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 9	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 10	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 11	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 12	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 13	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 14	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 15	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 16	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 17	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 18	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 19	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 20	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 21	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 22	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 23	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 24	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 25	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 26	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 27	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 28	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 29	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 30	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 31	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 32	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 33	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 34	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Student 35	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed

Reduce to lowest terms:

$$-\frac{3}{5} \div -\frac{7}{5} = ?$$
$$-\frac{3}{5} \times \frac{-5}{7} = -\left(-\frac{3}{7}\right) = \frac{+3}{7}$$

Answer

3/7

Correct! Next Question...

😊

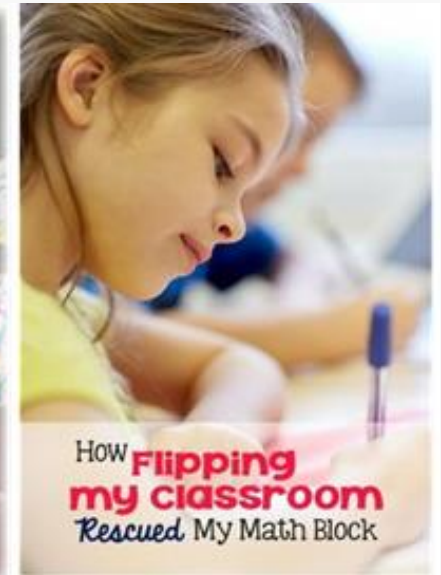
Show acceptable answer formats

Need help? Get a hint.

This will reset your streak!

I'd like a hint

问题：翻转课堂和“预习+授课”的区别是什么？



Flipped Classroom

Before Class

In the Class

After Class

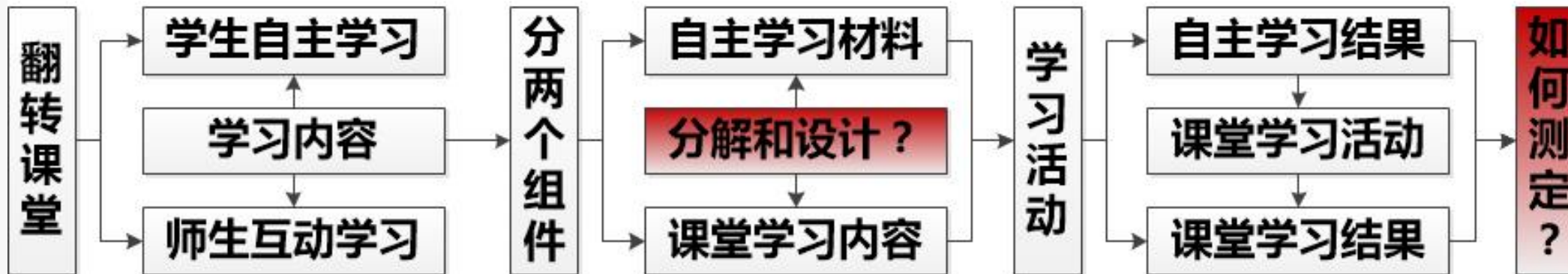
4.1 翻转课堂：技术促进教学变革



4.2 翻转课堂将课程分为面对面和在线两个组件



OLD (Before the Flip)		NEW (After the Flip)
 Student read your materials.	BEFORE CLASS	 Student do more interactive learning materials.
 Students listen to a lecture.	DURING CLASS	 Students receive studying help concepts with feedback.
 Students attempt the homework.	AFTER CLASS	 Students check understanding and if needed, explore to more deep learning.



4.3 以学习目标来确定如何将一课分解成两个组件



Critical Thinking

Creating

- designing, constructing, planning, producing, inventing, making, filming, podcasting, broadcasting, mixing, vodcasting, directing

Evaluating

- checking, hypothesizing, commenting, posting, judging, experimenting

Analyzing

- comparing, organizing, attributing, integrating, linking, mashing, outlining

Applying

- implementing, carrying out, executing, using, uploading, operating, sharing

Understanding

- interpreting, summarizing, inferring, paraphrasing, classifying, explaining, annotating, tagging

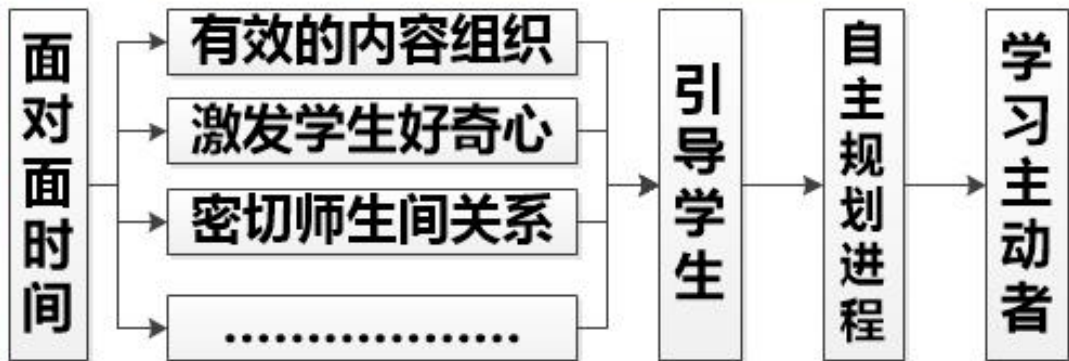
Remembering

- recognizing, listing, describing, identifying, retrieving, naming, locating, finding

学习目标分类
(Bloom's Taxonomy of Learning)



4.5 翻转课堂的核心是课堂教学的变革



Thanks