Putting Flipped Classroom into Practice on Biostatistics Instruction

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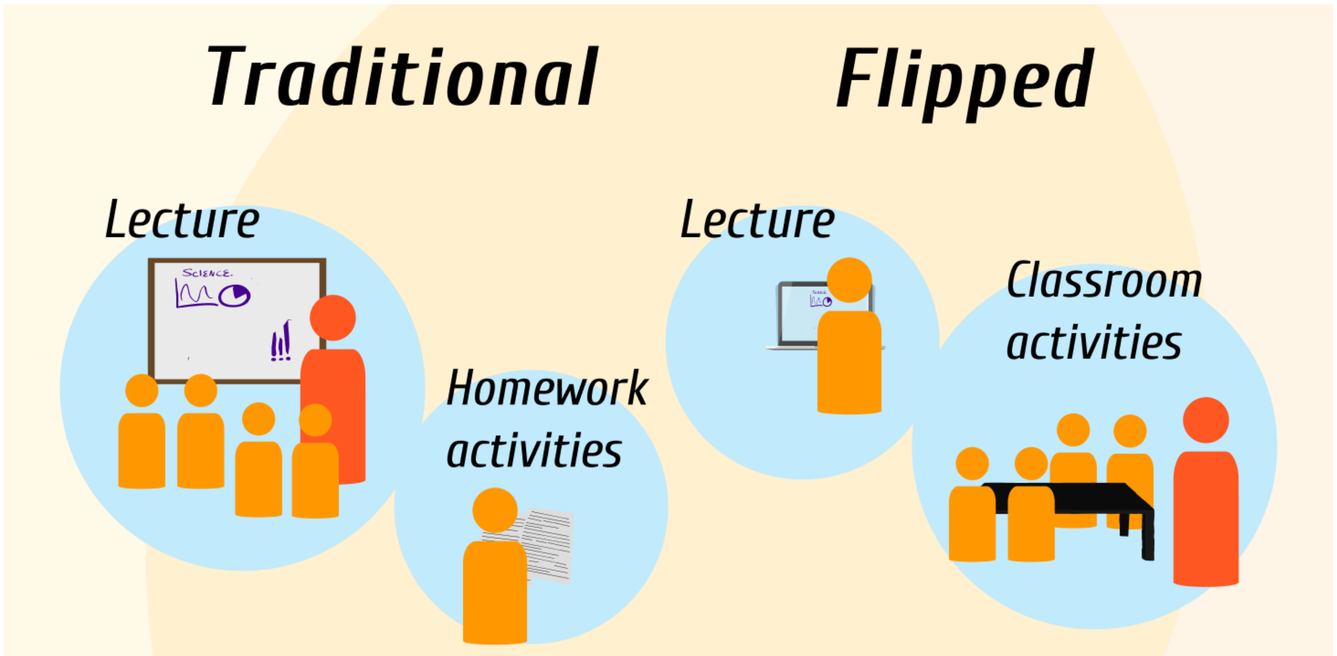
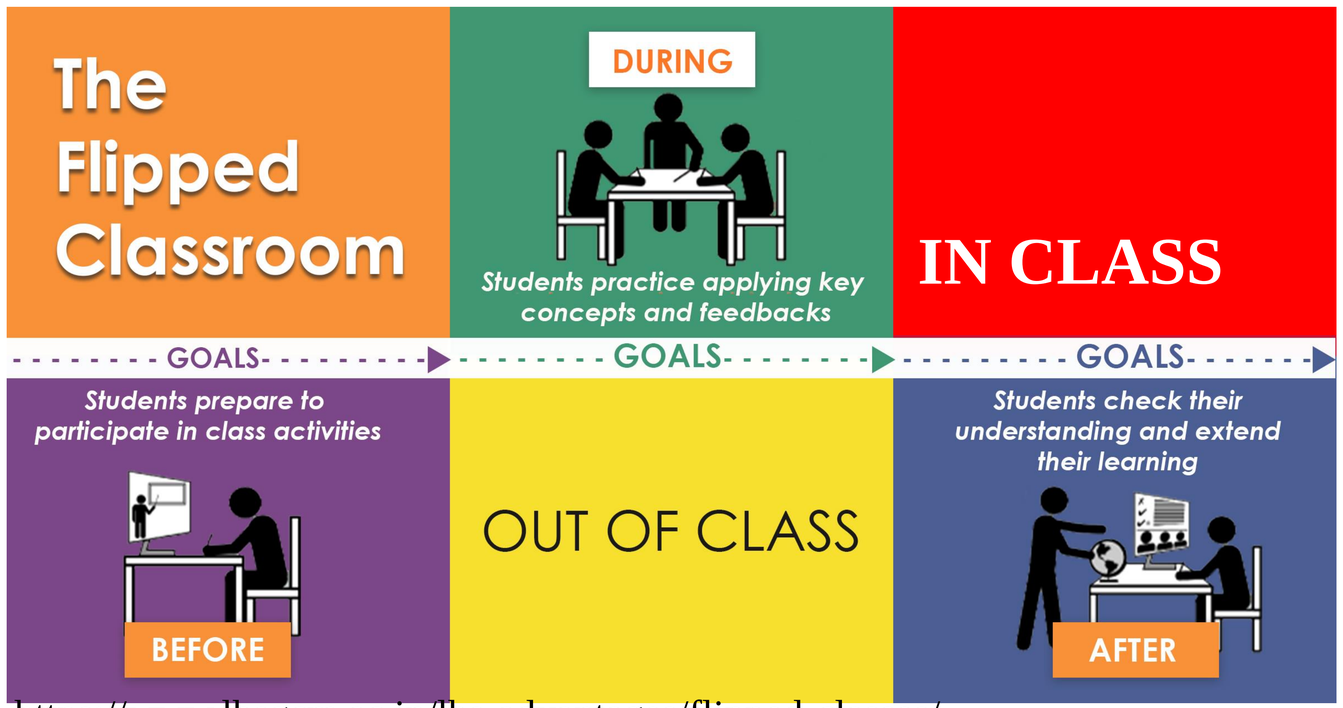


https://wave.video/blog/the-flipped-classroom-does-it-actually-work/

Overview: The most common teaching approach used in higher education classes is the traditional lecture-based approach, which places students in a passive role with students retaining isolated pieces of information that can later be forgotten. Students' engagement is limited but teachers strive to make the learning process as engaging as possible. Flipped classroom is the answer.

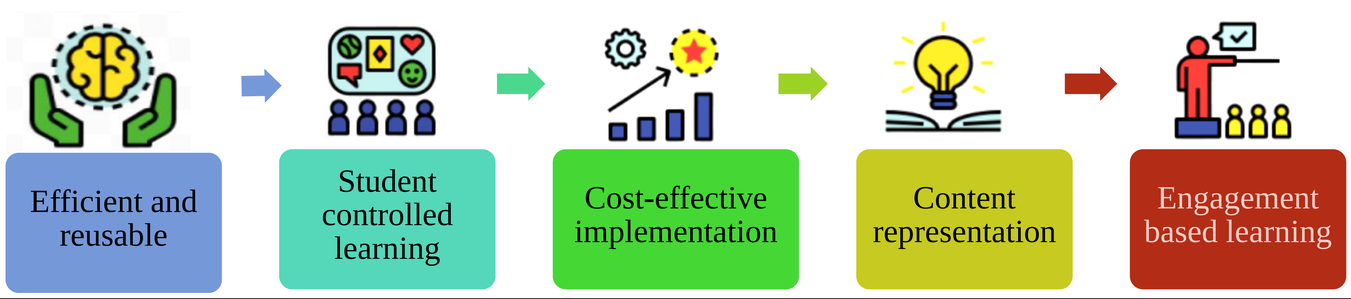
Aims and Objectives: This study aims at using flipped classroom approach in the Bio-statistics class.

Activities: Students studies course material outside school with the help of textbooks, video and other resources. Precious in-class time is dedicated to discussion. Teachers helped students work through problems individually and in groups.



https://www.lbsgcm.ac.in/lbs-advantages/flipped-classes/

5 Benefits of Flipping the Classroom



References:

- Bergmann, J. & Sams, A. 2012. Flip your classroom: reach every student in every class every day. Washington, DC, Internal Society for Technology in Education.
- Berrett, D. 2012. How 'Flipping' the classroom can improve the traditional lecture. The Chronicle of Higher Education, 12, 1-14.
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Flipped Classroom on Biostatistics

Pre-Class

- Modeling
- Pre-assessment

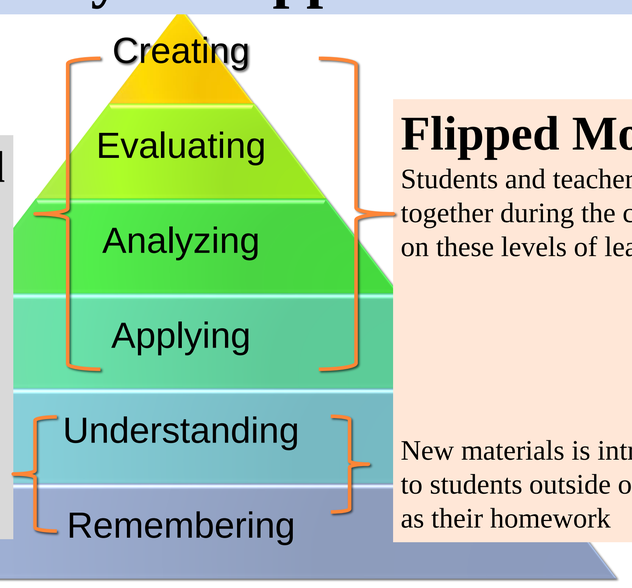
In-Class

- Clarifying concepts
- Solving problems

Post-class

- Assessment
- Application
- Transfer

Bloom Taxonomy & Flipped Classroom



Traditional Model

Students are responsible for homework in these levels of understanding

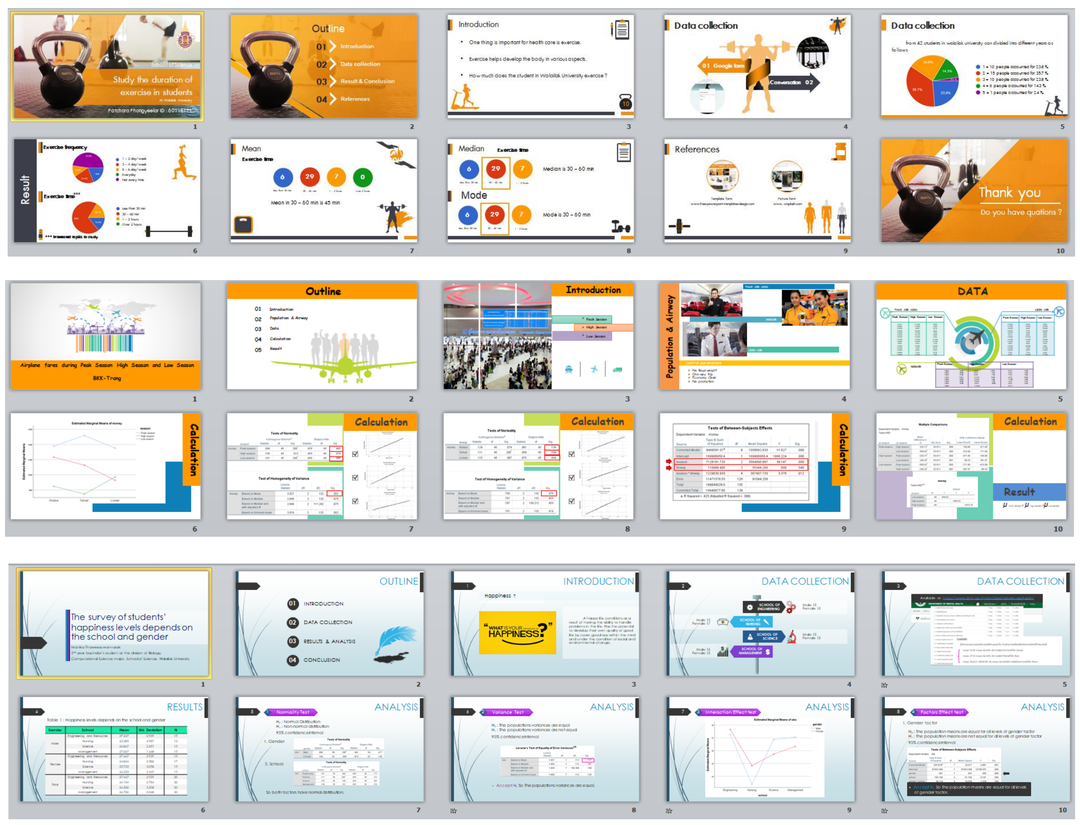
Teachers introduce new materials to students.

Flipped Model

Students and teachers work together during the classes on these levels of learning

New materials is introduced to students outside of class as their homework

Outcome: Biostatistics Class Assignments



Outcome: In Biostatistics class, the teacher becomes a trainer focusing on facilitating than teaching. A teacher gave students some problem and asked them to come up with statistical analyses presenting during face-to-face classroom learning activities. Biostatistics students did collaborative learning with their classmates and teacher through project presentation, group discussion. Students took flexibility in their learning process and fully incorporate new skills, information into their knowledge.

Impact: Flipped classroom has a positive impact on Biostatistics student learning activities such as achievement, motivation, involvement and interaction. The practice of flipped classroom helps Biostatistics students to develop skills in problem solving, creative thinking and teamwork.