



# FLIPPED LEARNING



## Flipped Classroom Design Framework

A flipped classroom is an instructional strategy and a type of blended learning in which students are required to watch online lectures, collaborate in online discussions, or carry out research at home, while actively engaging in concepts in the classroom, with their instructor's guidance.

To organize a flipped classroom, instructors might follow the steps below in a cyclical manner.

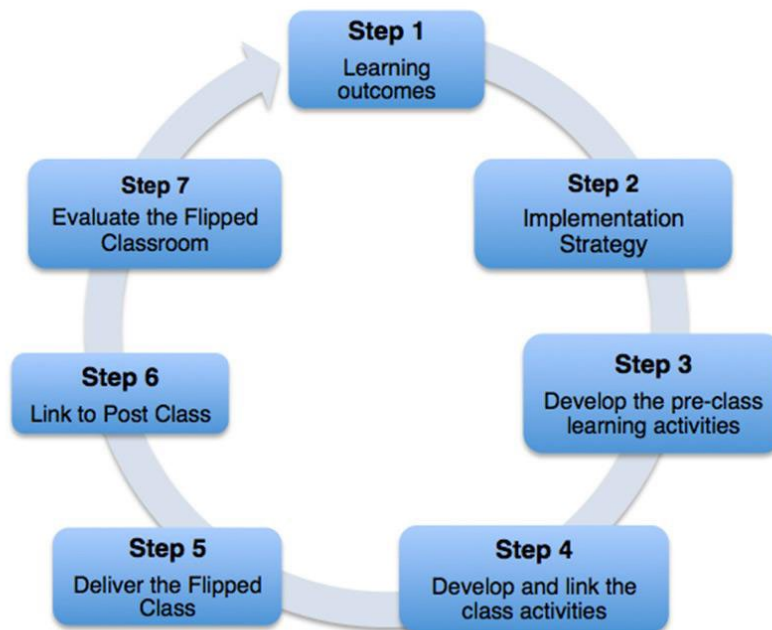


Figure 1. Steps in Flipped Classroom Design (Taken from O'Flaherty, J., Phillips, C., Karanicolas, S., Snelling, C., & Winning, T. (2015).

The steps below to flipping with a framework form part of a cyclical process:

### Step 1: Learning outcomes

Describe what the students will be able to do after having learnt this topic (i.e. learning outcomes and tasks they can do/perform) and list the relevant key/foundational concepts. You need to consider the topic, why you are flipping it, how this topic relates to capabilities that count?



## **Step 2: Implementation Strategy**

Below are some questions to help you decide the implementation strategies in your class:

- Where does the topic/class fit in the timetable?
- How and when will you induct the students – the why, how and when of flipping and the relevance of the topic?
- When does the pre-class need to be released (e.g., one week before class time)?
- What is the due date for students to complete the pre-class learning activities (e.g., 24-48 h before class time to allow time for your review)?
- How you will maximize the use of the allocated physical space for the class to facilitate interactive group learning?
- How will you evaluate the effectiveness of your flipped class?

## **Step 3: Develop the pre-class learning activities**

Pre-class online quizzes can also allow the instructor to practice Just-in-Time Teaching (Novak et al., 1999), which basically means that the instructor tailors class activities to focus on the elements with which students are struggling. Pre-class worksheets help focus student attention on areas with which they're struggling, and can be a departure point for class activities, while pre-class writing assignments help students clarify their thinking about a subject, thereby producing richer in-class discussions (Walvoord and Anderson, 1998).

## **Step 4: Develop and link the class activities**

Select the relevant concepts, related content and group learning activities e.g., case studies, flow charts, role play, quizzes, posters, which require students to apply and analyse the core concepts covered in the pre-class. Establish clear links between the pre-class and class time. You need to be considering these questions below;

- Have you allocated adequate time for each of the learning activities in class?
- What will motivate your students e.g., relevance, flexibility?
- How will you ensure teacher accountability e.g., reviewing pre-class activities, reporting results/student achievements back to class etc?

## **Step 5: Deliver the Flipped Class**

Deliver your linked flipped classroom and related activities.

- Set up the physical space to accommodate group based learning and organize learning resources
- Review student responses at the start of the class
- Clarify remaining learning issues
- Deliver classroom learning activities and monitor allocated time dedicated to each classroom activity



### **Step 6: Link to Post Class**

Make explicit links between the topic and the post class activities and assessment tasks. These could be group based or individual post class activities and/or assessment tasks that build on the concepts of the pre-class and class time. For example, instructors can use quizzes, brief review, short lecture, individual practices, small-group activities and student presentation. Provide students with the opportunity to evaluate and create knowledge and content. For example, instructors may begin by using One-Minute paper to assess what students have learned.

### **Step 7: Evaluate the Flipped Classroom**

Monitor level of student completion of pre-class activities and level of student participation in class activities. Invite informal feedback from students and analyse formal course evaluation. After the class, instructor can use self assessment. In self-assessment, students are expected to assess both the processes and products of their learning. According to Brown and Knight (2012), while the assessment of the product is often the task of the instructor, implementing student self-assessment in the classroom ensures students evaluate their performance and the process of learning that led to it.

### **How does Learning Take Place in Flipped Learning?**

In Flipped Learning, learning takes place in the following ways:

Students watch course videos, read texts and study materials at their convenience prior to the class, take notes, prepare at least 3 questions about the issues they did not understand well or they wonder about the topic. Students post their questions on the class topic(s) to LMS forum before 3 days of class.

In class, instructor might pick one of the options below to respond to student questions.

#### **Option 1:**

- The students are grouped as per the nature of the questions during the first class. The students try to seek answers to their questions through group work and peer learning.
- Instructor monitors the groups and facilitates the group discussions.

#### **Option 2:**

- Each student conducts research about one question and try to seek answers to one of the questions in the LMS forum before the day of the class.
- In the class, instructor facilitates the learning in such a way to encourage students to answer the questions that remained unanswered and create a discussion environment according to the answers given by the students.



The following techniques (see Figure 2) put forward by Lo and Hew (2017) might also be utilized in conducting a flipped classroom.

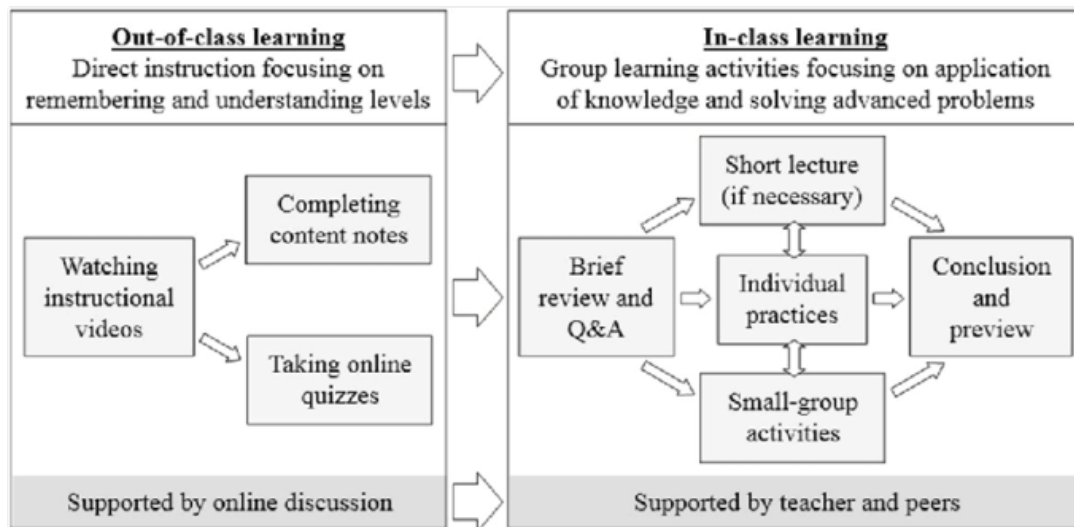


Figure 2. Conducting a Flipped Class by Lo & Hew (2017)

- Students study and learn the course material by watching instructional videos.
- Teachers can provide content notes to guide students' notetaking (DeSantis et al., 2015) and ensure students are adequately prepared for class meetings (Clark, 2015).
- Toward the end of out-of-class learning, teachers can provide online exercises to evaluate learning (Wang, 2016).
- As for the in-class learning component, teachers can first have a brief review on video lecture to recall important concepts and clarify any misunderstanding (e.g., DeSantis et al., 2015; Grypp & Luebeck, 2015; Lai & Hwang, 2016).
- Then, most of the time can be spent on group learning activities such as group discussion, collaborative tasks (Bhagat et al., 2016; Lai & Hwang, 2016; Bishop & Verleger, 2013) and hands-on exercises for students' individual practices (Clark, 2015) focusing on applying the knowledge learned from video lectures (Lai & Hwang, 2016) and solving advanced problems (Chao et al., 2015; Clark, 2015) under the support of the instructor and peers.



There are four phases beginning from outside of class activities and ending with assessment as seen in Figure 3.

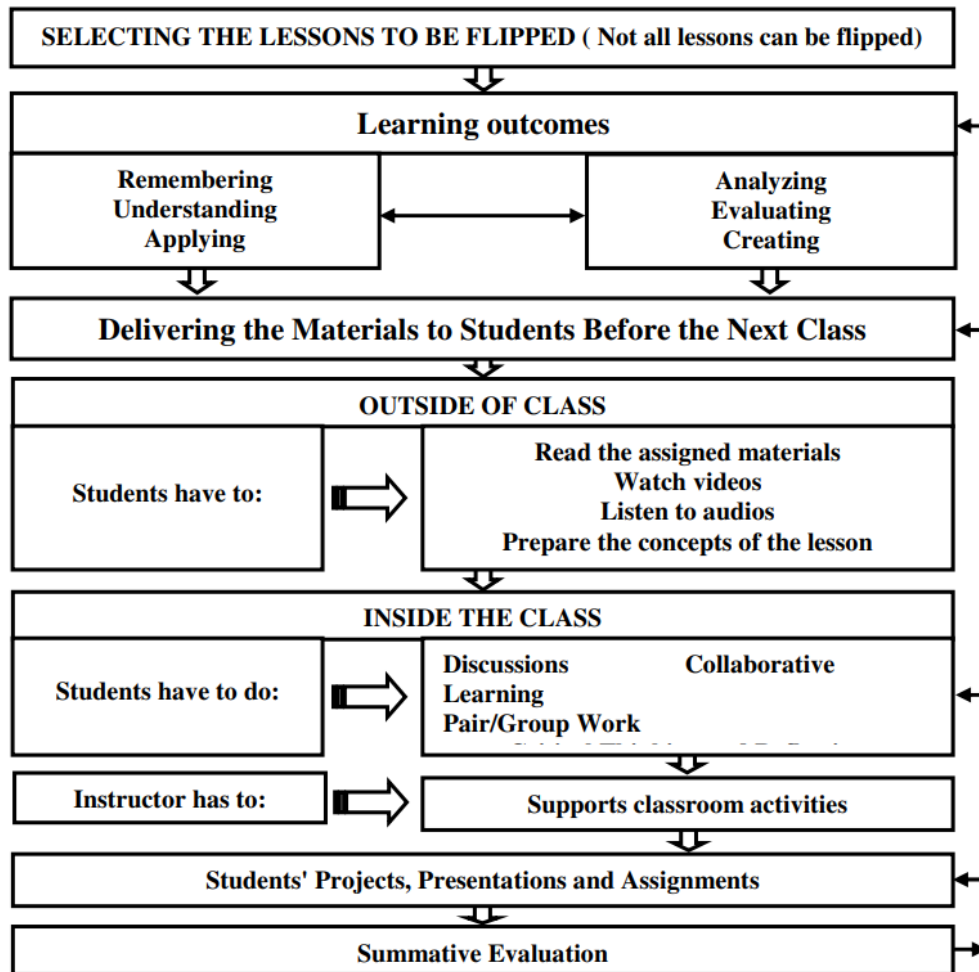


Figure 3. The EFL Flipped Classroom Teaching Model by Alsowat, H. (2016)

These phases are as follows:

**Phase One:** The lesson to be flipped is chosen by the instructor; not all lessons can be flipped. The instructor begins to determine the learning outcomes of the lesson. The learning outcomes are divided into lower-order thinking skills (LOTS) which include “*remembering, understanding and applying*” and higher-order thinking skills (HOTS) which include “*analyzing, evaluating and creating*”. LOTS are meant to be achieved outside the classroom and HOTS should be achieved in class.

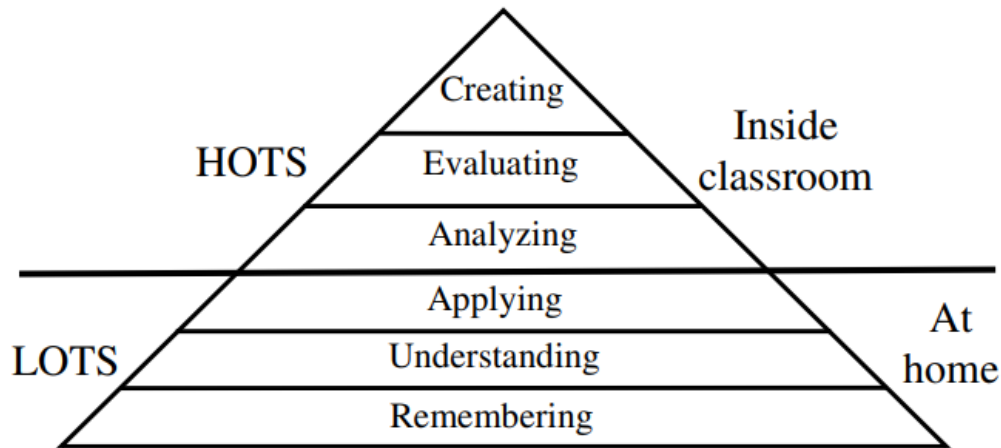


Figure 4. HOTS and LOTS in the Flipped Classroom by Alsowat, H. (2016)

**Phase Two:** The instructor designs the content through videos, audios, reading materials and/or by any means, and delivers it to the students before the next class. Instructor should take into consideration that the content covers the lower-order thinking skills. At home, students watch the videos, read the materials, listen to the audios and the other materials assigned by the instructor. They have to remember the information provided, understand the lesson ideas and analyze the content provided.

**Phase Three:** Inside the classroom, students are engaged in active learning activities, discussions, collaborative learning, critical thinking skills and so on. Besides, pair and group work are implemented to encourage student participation and engagement. Most of the class time is devoted for student-centered learning. The instructor role is that of a facilitator and supporter of learning; s/he encourages students to participate and controls the activities being implemented.

**Phase Four:** At the end of the lesson, students have to do projects, presentations and assignments related to the lesson. These activities are evaluated by the instructor to make sure that the learning outcomes are achieved. Finally, every step of the model is evaluated to give feedback for the whole lesson.



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## Further Readings and Resources

- [In-class activities and assessment for the flipped classroom. University of Waterloo. Centre for Teaching Excellence](#)
- [Online Activities and Assessment for the Flipped classroom. University of Waterloo. Centre for Teaching Excellence](#)
- [Flipped classroom. The Derek Bok Center for Teaching and Learning. Harvard University.](#)
- [The Flipped Classroom Explained - The University of Adelaide.](#)
- [Flipped classrooms use critical thinking to benefit students and teachers. Cambridge University Press ELT.](#)