



The Flipped Classroom

What is a flipped classroom?

The notion of a flipped classroom draws on concepts such as active learning, experiential learning, student engagement, hybrid course design and course podcasting. This page provides an explanation of the flipped classroom as well as links to resources that will help you in the design of your activities and approach to this style of learning and teaching.

In the flipped classroom, students complete learning normally covered in the classroom in their own time (by watching videos and/or accessing resources), and classroom time is dedicated to hands-on activities and interactive, personalised learning, leading to deeper understanding. Students use class time to apply the theory and concepts discussed in the videos, and to utilise techniques including group problem-solving and team building games, simulations, case study reviews, and group discussions.

There is no single model for the flipped classroom - the term is widely used to describe almost any class structure that provides pre-recorded lectures followed by in-class exercises. The important aspect is how the videos and other online resources are integrated with the classroom learning.

The following diagram explains one model of the flipped classroom, detailing some of the many ideas, resources and activities that can be incorporated to provide a rich, experiential learning environment.

The experiential flipped classroom model



Diagram adapted from "[Flipped Classroom: The Full Picture for Higher Education](#)", a post on Jackie Gerstein's "User Generated Education" blog.

Why use flipped classrooms?

The value of a flipped class is in the repurposing of class time into a workshop where students can enquire about lecture content, test their skills in applying knowledge, and interact with one another in hands-on activities. During class sessions, instructors function as coaches or advisors, encouraging students in individual enquiry and collaborative effort.

The wide range of **potential benefits** of using a flipped classroom includes, but is not limited to, the fact that it can:

- provide an opportunity for reflection
- be used to revisit important concepts and content, checking understanding and clearing up misconceptions
- assist students with accessibility concerns
- assist students with English as a second language
- help students revise content
- assist peer learning and social interaction through collaborative projects
- teach students to take responsibility for own learning
- increase student-to-student engagement
- shift priorities from covering materials to mastering.

Challenges that can arise when using flipped classrooms include:

- Students may not be prepared.
- Time, expertise and effort are needed to create/source videos.
- A flipped classroom requires careful preparation, and the right mix of out-of-class and in-class elements.
- It is not appropriate for some types of content.
- Students may not immediately understand the value of this model.
- Equipment and access for students to view video lectures may be an issue.
- There may be problems with the availability of class spaces that support active and collaborative work.
- The flipped classroom entails a change in role of students and staff. Students need to own their learning and teachers need to become facilitators.

How can I teach effectively using flipped classrooms?

- Communicate the rationale behind the flipped classroom to your students.
- Provide incentives for students to prepare for class.
- Provide clear connections between in-class and out-of-class activities.
- Ensure that classroom activities are clearly defined and well structured to suit the purpose.
- Allow sufficient time for students to carry out their assignments.
- Provide facilitation and guidance that supports a learning community.
- Provide prompt and adaptive feedback on group and project work.
- Utilise technologies that are familiar and easy to access.

Resources and tools

Useful links for exploring the idea of flipped classrooms.

The Teaching Gateway has many resources and strategies that are applicable to the flipped classroom approach and you might like to start with some of the following:

- **[Teaching Approaches and Strategies](#)**
- **[Guideline 1: Actively engage students in the learning process](#)**
- **[Planning & Designing a Blended or Online Course](#)**

Flipped Classroom Case Studies

In **this video**, Dr Chris Tisdell, Senior Lecturer in the School of Mathematics and Statistics, shares how he engages and motivates large mathematics classes at UNSW by creating and sharing YouTube videos and eBooks, and live-broadcasting interactive classes. Chris believes that using the available technology to facilitate a "flipped classroom" model has had a very positive effect on student learning.

In **this video**, Dr Abelardo Pardo, Lecturer in the School of Electrical and Information Engineering at The University

of Sydney describes what a flipped classroom is, and the many benefits and considerations of this type of teaching.

How to create your own videos

The following are links to other pages within the Teaching Gateway that provide more detailed information on creating your own videos

- [How to pre-record a presentation in Blackboard Collaborate](#)
- [Pre-recorded lecture guide](#)
- [Guide to TELT media services](#)
- Other options for creating your videos

Integrating videos into the flipped classroom

The following are just some of the many sites where you can source existing videos to use in your teaching:

- [YouTube](#)
- [TED](#)
- [Khan Academy](#)
- [Youtube Education for Universities](#)
- [Academic Earth](#)
- [videolectures.net](#)
- [webcast.berkeley](#)
- [MIT Opencourse](#)
- [iTunes-U](#)

For options on how to embed your video in Moodle please visit the [Embed a Video in Moodle](#) page.

We also recommend that you motivate students to watch the video by:

- adding a brief description of video (including its length)
- explaining what you want them to get out of watching it
- posing some critical questions for them to consider while they watch - these can form the basis of in-class discussion
- including a quiz to gauge students' understanding and highlight any misconceptions.

References/External Resources

- **University of Queensland Flipped Classroom:** An extensive website including all aspects of the flipped class, case studies and links to their Office of Learning and Teaching project.
- **[7 things you should know about flipped classrooms](#)**
- Jonathan Bergmann and Aaron Sams (2012), *[Flip your Classroom: Reach Every Student in Every Class Every Day](#)*. Although the book is written from a school perspective, the strategies and ideas are highly relevant to tertiary institutions.

- User Generated Education, [The Flipped Classroom: the full picture for higher education](#)
- [Humanizing the Classroom by Flipping the Homework versus Lecture Equation](#)

Videos

- [Flipping the Classroom: Simply Speaking](#) (Pennsylvania State University 3:23min)
- [How the Flipped Classroom Works](#) (MediaCore 1:48 min)

Resources for UNSW staff

The [Connections Seminar series](#) and the [annual Learning and Teaching Forum](#) provide platforms for UNSW staff to explore different aspects of learning and teaching, share ideas and get feedback on practice and research.

Recordings and presentations can be found on the respective Moodle course sites (self-enrolment key provided)

- 2018 Learning and Teaching Forum on October 26, 2018: [Flipped Classroom Model for Enhancing Learning Outcomes in Construction Education](#) presented by Dr Mohammad Mojtahedi, UNSW Built Environment (self-enrolment key: **Intforum**)
- 2018 Learning and Teaching Forum on October 26, 2018: [Having the Courage to Stop Lecturing and Start Teaching – Exploring Team-Based Learning as a Highly Structured Flipped Classroom](#) presented by Dr Stuart Clark, School of Minerals and Energy Resources Engineering, Faculty of Engineering (self-enrolment key: **Intforum**)
- Connections Seminar on October 3, 2018: [Peer Instruction in Flipped Classrooms](#) presented by Dr Ang Liu, Senior Lecturer, School of Mechanical and Manufacturing Engineering, Faculty of Engineering (self-enrolment key: **unswconnections**)
- Connections Seminar on September 26, 2018: [Tutorial-lecture swapping to enhance students' engagement](#) presented by Dr Furqan Hussain, Senior Lecturer, School of Minerals and Energy Resources Engineering, Faculty of Engineering (self-enrolment key: **unswconnections**)

The **Flipped Classroom Community of Practice (CoP)** is a multi-disciplinary network of UNSW staff and was created to discover and disseminate various flipped classroom approaches at UNSW. The network meets, on average, two to four times a year to discover: (1) what each other is doing in this area; (2) to share good practices and (3) to discuss pedagogical (e.g., how to motivate students to undertake weekly tasks) and administrative challenges (e.g. work-load for out-of-classroom hours). Please email [Kar Ming Chong](#) if you would like more information or to join the Community of Practice.

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