

ANNEX 4.3 Pedagogical approaches

A **flipped classroom** is an instructional strategy and a type of [blended learning](#) that reverses the traditional [learning environment](#) by providing instructional content that usually is in an online platform and has the curious feature of being outside of the classroom. It changes the dynamic of teaching from the traditional way so that activities such as homework are moved into the classroom. In a flipped classroom, students watch online videos of lectures and are asked to collaborate in online discussions. The carrying out of research is done at home while the classroom is where the student will actively engage the material with the guidance of a mentor.

The teacher is typically the central focus of a lesson and the primary source of information in the traditional model of a classroom. The teacher responds to questions while students have the teacher as their reference for guidance and feedback. In a classroom with a traditional style of instruction, individual lessons may be focused on an explanation of content utilizing a lecture-style. Student engagement in the traditional model is usually limited to activities in which students work independently or in small groups on an application task designed by the teacher. Class discussions are typically centered on the teacher, who presides over the conversation. Typically, this pattern of teaching also involves giving students the task of reading from a textbook or practicing a concept by working on a problem set, for example, outside school.

The flipped classroom intentionally shifts instruction to a learner-centered model in which class time delves deeper into topics and creates meaningful learning opportunities, while educational technologies such as online videos are used to 'deliver content' outside of the classroom. In a flipped classroom, 'content delivery' may take a variety of forms. Often, video lessons prepared by the teacher or third parties are used to deliver content, although online collaborative discussions, digital research, and text readings may be used. It has been shown that the ideal length of the video lesson to be is eight to twelve minutes.

Flipped classrooms also redefine in-class activities. In-class lessons accompanying flipped classroom may include activity learning or more traditional homework problems, among other practices, to engage students in the content. Class activities vary but may include: using math manipulatives and emerging mathematical technologies, in-depth laboratory experiments, original document analysis, debate or speech presentation, current event discussions, peer reviewing, project-based learning, and skill development or concept practice. These types of active learning allow for highly differentiated instruction, more time can be spent in class on higher-order thinking skills such as problem-finding, collaboration, design and problem solving as students tackle difficult problems, work in groups, research, and construct knowledge with the help of their teacher and peers. These higher order thinking skills have been documented in Bloom's taxonomy.

A teacher's interaction with students in a flipped classroom can be more personalized and less didactic, and students are actively involved in knowledge acquisition and construction as they participate in and evaluate their learning.