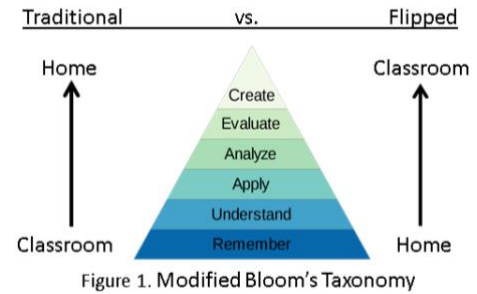




How to Use the Flipped Classroom Model

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Flipped Classroom Model: Traditionally, classroom (in-person/group) teaching has focused on the transfer of knowledge and the engagement of learners in the lower levels of cognitive processing described in the modified Bloom’s Taxonomy model (Figure 1). Higher-level cognitive processes often occur outside the classroom in the form of homework or exercises. A flipped classroom model deliberately shifts lower level Bloom’s cognitive processes outside the classroom. Students learn basic knowledge and background content outside the classroom, and higher cognitive processes are explored using classroom time¹. Studies have shown that learners prefer this more active teaching method with better knowledge retention². Below is a step by step guide on how to utilize the flipped classroom model.



1. Perform a needs assessment: What portion of your didactic curriculum or goals could be better served as “flipped?”
2. Create the curriculum: Match the out-of-class content with the goals for in-class higher-level educational goals. Set goals for the new curriculum within realistic time, technological, and personnel support limits.
3. Integrate flipped classrooms within the larger curriculum: The flipped classroom model is one of many teaching techniques and works best when used in combination with other teaching methods (e.g., procedural skills are more amenable to simulation and real-time learning in the operating room).
4. Track participation and engagement: Learner participation is critical for an effective flipped classroom model. Participation can be assured by careful tracking and attention to incentivizing pre-classroom learner engagement. Timely and frequent feedback from both instructors and learners is important for assessment of efficacy and overall engagement.

Flipped Classroom	Do	Don’t
Teaching Method	Use established teaching methods, perform needs assessment, and set educational goals.	Assume that asynchronous video is the only pre-class educational method. Select the best educational and assessment tools for the topic and learners.
Curriculum	Optimize and reinforce materials learned using a cohesive and integrated home and classroom curriculum.	Flip all classrooms reflexively. Some topics and learner groups are better served in the traditional in-person model.
Content Management	Divide content into manageable sections that allow for comprehension and retention of critical concepts.	Stack either homework or class time with an excessive amount of information leading to apathy and poor compliance.
Participation and Engagement	Track participation, seek feedback and modify the curriculum based on feedback.	Permit pre-class and in-class learning to diverge due to lack of attention. Overlook the importance of student and educator participation in both pre-class and in-class sessions for achieving success.

References:

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2. Martinelli SM, Chen F, DiLorenzo AN, et al. Results of a Flipped Classroom Teaching Approach in Anesthesiology Residents. *J Grad Med Educ*. 2017;9 (4):485-490.
3. Moffett J. Twelve tips for "flipping" the classroom. *Med Teach*. 2015 Apr;37(4):331-6.