

# **CE Course Handout**

Flipping the Classroom: Turning the Dental Hygiene Classroom Upside Down

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#### Flipping the Classroom: Turning the Dental Hygiene Classroom Upside Down

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## **Course Description:**

The term flipping the classroom has been a buzzword in education for the past several years. The concept of flipping the classroom involves students doing the lecture portion of the class at home before they come to class, and allows for class time to be spent engaging in activities that facilitate critical and analytical thinking. While the concept seems simple, facilitating a flipped classroom requires planning and creativity. This course will discuss the flipped classroom. Strategies to deliver content will be covered and ideas for engaging students in meaningful learning activities will be presented. The speakers will discuss their own experiences in flipping the dental hygiene classroom and share lessons they have learned along the way. Join us to learn how to enhance your classroom using the flipped classroom model.

## **Learning Objectives:**

At the end of this session participants will be able to:

- 1. Describe the flipped classroom concept.
- 2. Describe the role of the teacher in a flipped classroom.
- 3. Create engaging learning activities to facilitate critical thinking during class time.
- 4. Apply the concepts of the flipped classroom to dental hygiene curriculum.

#### **Course Outline**

## I. Define the Flipped Classroom

a. What does the flipped classroom mean to you?

- i. Inverting the classroom means that events that have traditionally taken place inside the classroom now take place outside the classroom and vice versa. (Lage et al.)
- ii. Content delivery is done at home. Application, analysis and synthesis of information is done in class through activities and interactive teaching strategies.

## II. History of the Flipped Concept

- a. Where did the concept come from?
  - i. Around late 1990's, early 2000's publications began about the inverted, flipped, or peer instruction models.
    - 1. Walvoord and Anderson. *Effective Grading* (1998). They propose a model in which students gain *first-exposure learning* prior to class and focus on the *processing* part of learning during class.
    - 2. Lage MJ, Platt GJ, and Treglia M (2000). Inverting the classroom: A gateway to creating an inclusive learning environment. *The Journal of Economic Education* 31: 30-43.
    - 3. Crouch CH and Mazur E (2001). Peer instruction: Ten years of experience and results. *American Journal of Physics* 69: 970-977.
- b. Related educational theories

# III. The Evidence on Flipped Classroom Design

- a. A need for change reported in higher education
- b. Positive Outcomes
  - i. Higher student satisfaction
  - ii. Deeper understanding of the course content through more active learning
  - iii. Improved student performance
- c. Negative Outcomes
  - i. Increased workload for students and faculty

- ii. Limited access or mastery of technology
- iii. Necessity for higher student self-motivation
- d. Active learning effectiveness
  - i. Promotes activity at higher levels of bloom's taxonomy



Bloom's Taxonomy revised

- ii. Improves student motivation and attitude
- iii. Opportunities to give value feedback

## IV. Planning for the Flipped Classroom

- a. Course Objectives
  - i. Foundations
    - 1. Review of writing an objective
    - 2. Bloom's taxonomy- and relationship to structure of flipped classroom
    - 3. Use as a guide in all parts of planning
- b. Content/Didactic Information (Done at home)
  In what ways can you deliver content to students outside of the classroom? What has worked and not worked for you?

- i. Readings, videos, recorded lectures
- ii. Setting expectations-Very important
- iii. Options for recording lectures, videos, presenting content
  - 1. Short chunking
  - 2. Do's and Don'ts for recorded lectures
  - 3. Explain Everything, Mediasite, Camtasia, iTunesU, Podcasts, V-casts, Animoto
  - 4. Guided Readings
- iv. Ensuring that they do the 'at home'
  - 1. Strategies for this
  - 2. Develop these ideas
  - 3. Setting clear expectations
- c. In Class Activity

What types of activities do you find most meaningful in creating higher level learning in your classroom?

- i. What should be an activity
- ii. What should not be an activity
- iii. This part defines the flipped model
- iv. Specifics of activities
- v. Role of the faculty
- vi. Use of groups- the good and bad
- d. Post-Class
  - i. This part is often lost
  - ii. Reflective, assessment, self-assessment
  - iii. Graded vs. non-graded

#### V. Implementation

- a. Allow time to develop content delivery methods and in-class active learning experiences
- b. Identify aspects of the course that will be flipped
  - i. Fully flipped vs. partially flipped
- c. Be clear about student expectations from the beginning
- d. Set up a system of support and communication

- e. Create a clear cut syllabus
  - i. Restate expectations and policies for support
  - ii. Layout a schedule complete with learning objectives, content locations, activities, and assessments
- f. Form a method of course structure evaluation to promote continuous improvement
  - i. Used throughout the course and at the conclusion
- VI. Examples from Hygiene Curriculum
  - a. How can you incorporate the flipped classroom model in your dental hygiene classroom?
- VII. Common Mistakes in Implementing the Flipped Classroom
- VIII. Conclusion

	Flipped Classroom Implementation Plan					
Objective	Content (Out of Class)	Activity (In Class)	Post Class Evaluation	Assessments		
	(Out of class)	(III Class)	Evaluation			

## IX. Resources

Bane J. Flipped Through Design. iTunesU. 2014.

Belfi, L., M., Bartolotta, R., J., Giambrone, A., E., Davi, C., Min, R., J. (2015). "Flipping" the Introductory Clerkship in Radiology: Impact on Medical Student Performance and Perceptions. *Academic Radiology*, Online.

Gilboy, M., B., Heinerichs, S., Pazzaglia, G. (2015). Enhancing Student Engagement Using the Flipped Classroom. *Journal of Nutrition Education and Behavior*, Volume 47, Issue 1, January–February 2015, Pages 109-114.

Herreid, C. F., & Schiller, N. A. (2013). Case Study: Case Studies and the Flipped Classroom. Journal Of College Science Teaching, 42(5), 62-67.

Marshall, L. L., Nykamp, D. L., & Momary, K. M. (2014). Impact of Abbreviated Lecture with Interactive Mini-cases vs Traditional Lecture on Student Performance in the Large Classroom. *American Journal of Pharmaceutical Education*, 78(10), 189.

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