



Komaraju A; Bartel TB; Dickinson LA; Grant FD; Yarbrough TL. **Implementation of a Flipped Classroom for Nuclear Medicine Physician CME.** *JCEHP*. Summer 2018; 38(3): 198-204.

Summary

The “flipped classroom” teaching method, while already widely used in undergraduate medical education, the feasibility of its use in continuing medical education (CME) has not been fully explored. The authors aimed at prospectively studying the feasibility, perceived benefits and barriers of successfully implementing the flipped classroom method in a CME program for Nuclear Medicine physicians. The flipped classroom method employed an online session material (15-item online case-based questions posted 2 weeks before to 4 weeks after the conference) to be completed by attendees prior to the meeting, and a live case-based session at the meeting that used audience response system. Participants completed a survey regarding their experience. In addition, three 60-minute focus group interviews were conducted with a subgroup of session attendees (6 participants). **Results:** Study participants identified three benefits and three barriers for the flipped classroom method in CME. The benefits included: (1) Encouragement of self-directedness, (2) Increased focus during the live session, and (3) Increased engagement and motivation during the live session. The barriers included (1) Time maximization prior to live session, (2) Necessity of timely feedback and robust explanations, and (3) Impact of pre-session material format and difficulty level.

Discussion

1. Why are the concepts represented in the article important?

The concepts presented in the article, which include **interactive learning** methods, increasing learner **engagement**, and improving learning and retention, are all important concepts that enhance the CME mission for the following reasons:

- 1- Serves as one of the tools that allow CME providers to increase the interactivity of CME offerings and improve learners’ engagement.
- 2- Allows for interactive, self-directed learning; a feature highly popular amongst the new generation of learners and proven to lead to better retention.
- 3- The flipped classroom method allows to combine online CME (which is correlated with higher flexibility, less cost, and less time away from work) with the social and interactive benefits of live CME

2. How can the topic(s) be applied to CME/CPD and activity development and delivery, in various learning formats (live, online, journal, etc.)? Please identify any possible examples as related to AAP CME activities.

The flipped classroom method can be applied to CME/CPD as one of the tools to increase active learning and learners’ engagement. It is possible to use this method in combination with other interactive techniques e.g. audience response system and small group case-based sessions.

For this method to be successful, CME providers should take into account the following considerations:

- The audience/attendees need to be known/defined before the activity occurs in order to receive the pre-conference work materials
- This method is more likely to be successful if the audience is homogeneous in terms of professional background (i.e. harder to do with interprofessional attendees)
- Faculty development on the flipped classroom must be provided to the faculty

Applicable learning formats might include:

- Online learning (webinars) – Pre-work sent to webinar registrants
- Hands-on Workshops
- Interactive Group Forum/interactive sessions
- Audience Response Sessions
- Selected sessions of a live AAP CME activity