# **Open Question: Benefits of Flipped Learning**

Clark, R. M., Kaw, A., & Besterfield-Sacre, M. (2016). Comparing the effectiveness of blended, semi-flipped, and flipped formats in an engineering numerical methods course. *Advances in Engineering Education*, *5*(3), n3.

Open Question: Open Questions What did you like most about the flipped classes and what benefits did you perceive?

#### **Coding Strategie**

#### **Enhanced Learning or Learning Process**

Better understanding; less confusion Enhanced learning/effectiveness/depth/ability Subject matter retention Multiple sources/resources for understanding Reinforcement and review Multiple attempts

## **Preparation Engagement & Professional Behaviors**

Engaged during class; paid attention; not bored Enjoyed class Arrived to class prepared Ability to learn on one's own Drove motivation and accountability

#### **Video/Online Learning**

Re-watch videos Work at one's own pace; pause video Flexibility, convenience, own preferences Modularization of topics

# **No Benefit or Neutral Result**

No benefits perceived
Did not like flipped instruction
Videos not used
Instructional differences not noticed

## **Alternative Use of Class Time**

In-class active learning, problem solving, clickers In-class support and questions In-class group time for projects
Student interactivity and peer support

# **Specific to Course or Course's Videos**

Videos concise Videos had a good pace Overall work time less Videos had relevant content (e.g., demo or examples) or were of high quality What suggestions do you have for improving?