

# Rethinking Course Structure: Student Perceptions of Flipping a Classroom

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# Introduction

- Teacher-centered activities typically dominate college classrooms and are associated with lower cognitive learning levels  
(Ewing & Whittington, 2009)
- Transformation of agricultural education (NRC, 2009)
- Lecture should be used less and other strategies should be considered  
(NRC, 2009)



# Purpose

- To investigate learners' perceptions of flipping an agricultural education teaching methods course by moving in-class lectures online to allow the instructors of a teaching methods course time to model various teaching methods during weekly class sessions.



# Description of Teaching Methods Course

## Before

- Class time
  - Deliver new information through lectures
  - Concepts disseminated at the knowledge and comprehension levels
- Out of class
  - Lesson plan creation

## After

- Class time
  - Teaching simulations
  - Critique
  - Discussion
  - Lesson plan creation
- Out of class
  - Online modules
  - Quizzes



# Methods

- Teaching methods in agricultural education course
- 14 out of 19 students participated
- Focus group
- Constant comparative method
  - 4/5 researchers individually analyzed the data and reached consensus on the categories



# Methods

- Trustworthiness
  - Member checking
  - Thick description
  - Audit trails
  - Triangulation
    - Multiple researchers



# Findings

- The quality and effectiveness of online video modules
  - Ineffectiveness of online video modules
  - Improvements to online video modules
  - Ineffectiveness of online quizzes
  - Quiz Improvements
- In-class lecture time
  - Structure and time management
  - Suggested re-structuring of in-class lecture time
- Overall learning that took place due to the use of the flipped classroom approach



# The Quality and Effectiveness of Online Video Modules

- Ineffectiveness of online video modules
  - S4 stated, “Don’t just read me what is on the PowerPoint.”
  - S2 said, “the content isn’t bad, it is just who wants to sit there on their computer screen.”





# The Quality and Effectiveness of Online Video Modules

- Improvements to online video modules
  - Changes need to be made to provide more detail and depth to the slides (S4)
  - Provide a list of questions (S1)
  - S3 suggested the distribution of partially completed notes
  - Online discussion to ensure that future students complete the online modules (S2)



# The Quality and Effectiveness of Online Video Modules

- Ineffectiveness of online quizzes
  - Students forgot to take the online quizzes
  - Students felt the quizzes were not challenging
  - S2 stated that “the content was great, but it was a pointless use of an online quiz”.
  - PowerPoint slides could be used during the quizzes



# The Quality and Effectiveness of Online Video Modules

- Quiz improvement methods
  - No open note quizzes
  - The quizzes “would have been more effective because that would have forced you to know the material, versus having it pulled up and going along with it during the quiz.” (S2).
  - Extend the amount of time to take the online quiz (S1)
  - Administer the quiz in lecture (S1)



# In-class Lecture Time

- Structure and time management
  - Too busy
  - S1 said, “I think we had too many TAs in here trying to teach all of us.”
  - Class content was confusing because it “was always a week ahead” (S6)
  - Allowed for observation of various teaching methods (S9; S11)
  - Teaching methods examples were helpful
    - S8 stated, “I felt like I was gaining something as a teacher and not non-essential things that they make us learn.”



# In-class Lecture Time

- Suggested re-structuring of in-class lecture time
  - Professor and TAs should rotate teaching roles (S3)
  - All content should be online and there should be lab sessions twice a week (S7)
  - Increase amount of time for lesson planning (S7;S11)
  - Align course content with microteachings (S3; S7; S8; S9)
  - Discuss classroom management techniques (S4)



# Overall Learning that Took Place due to the use of the Flipped Classroom Approach

- S1 said, “overall, it was a really good class. . . I really did learn how to do all those different learning modalities”
- Class sessions reinforced the content from the online modules (S6)
- Prepared students to use many different teaching methods (S7)
- Confidence builder (S2)



# Conclusion/Recommendations

- Mixed perceptions
- Criticism towards course structure
- Self-perceived learning
- On-line modules
  - Go beyond reading the slide
  - Provide handouts with questions/notes
- Administer the quizzes in class
- Increase planning time
- Align content with microteachings
- Make expectation clear



Thank You!

