

# Collaborative Flipped Classrooms: A Transformative Approach to Teaching Technical Writing

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# Background



- The progression of information technology such as the internet surged the growth of online educational programs which are currently transitioning the foundation of a traditional system of education (Sher, 2009).
- Given the increasing evidence that communication technologies are transforming much of society, there is little reason to believe that it will not be the defining transformative innovation for higher education in the 21st century (Garrison & Kanuka, 2004).
- Blended learning is the thoughtful integration of classroom face-to-face learning experiences with online learning experiences and is viewed as both simple and complex (Garrison & Kanuka, 2004).

# Purpose

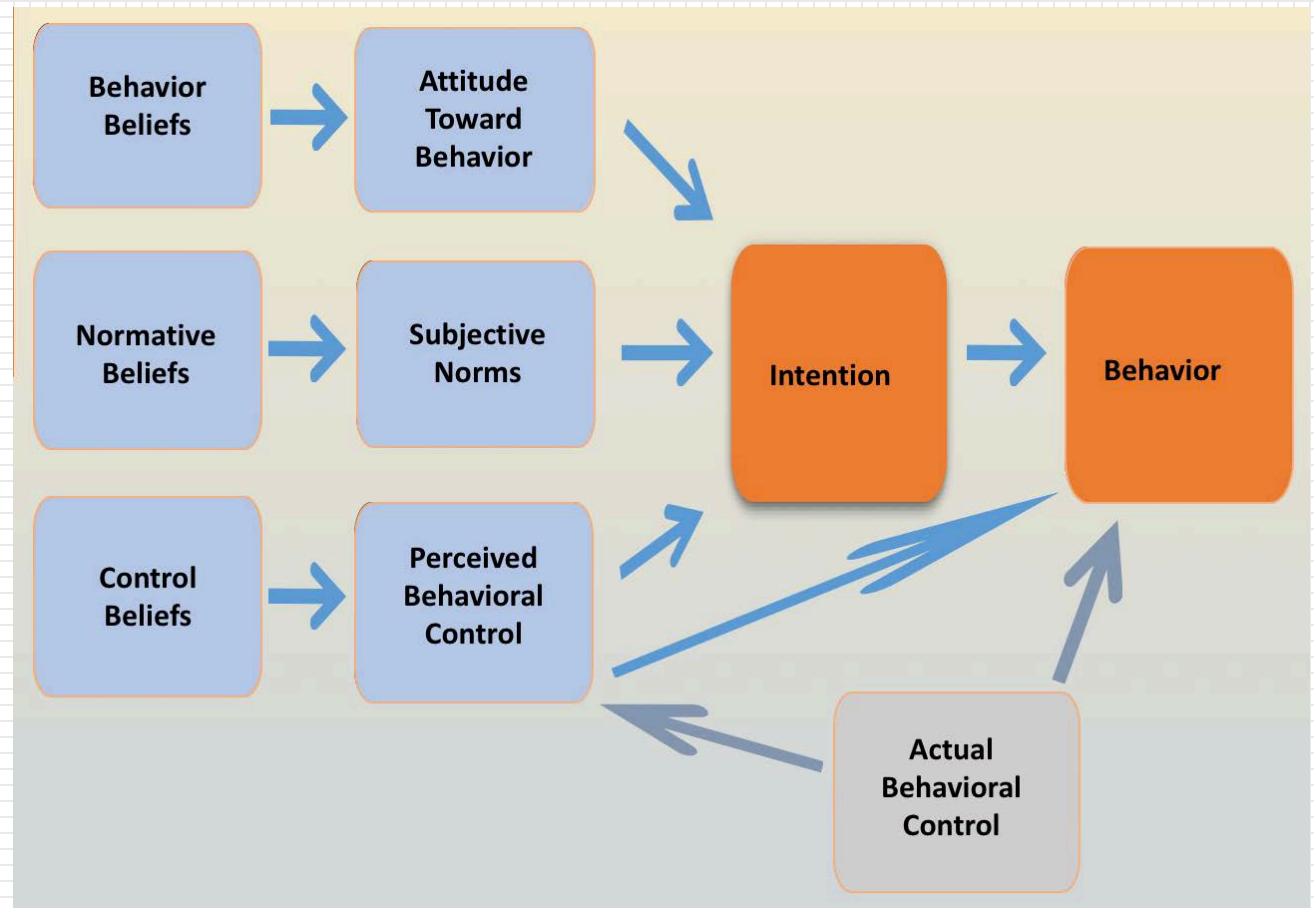
- To explore students' perceptions about flipped classrooms in order to glean insights on how this instructional approach impacts student engagement and thus the ability to accomplish the learning objectives for a technical writing course taken by students studying agriculture, life sciences, natural resources, and the environment.

# Research Questions

- What are the preconceived perceptions of flipped classrooms?
- What best practices have been noted by participating students regarding the structure of the flipped classroom?
- Does the flipped classroom strategy effectively support the learning of students?
- How could flipped classrooms be improved?

# Theoretical Framework

- Figure 1. Theory of Planned Behavior (Ajzen, 1991)



# Methodology



## *Mixed Methods Study*

### *Approach*

- Quantitative Method of Assessment
  - Qualtrics Questionnaire
- Qualitative Method of Assessment
  - Focus Group

# Findings

## Sample

- **( $n=33$ ) students participated in the Qualtrics questionnaire.**
- **( $n=46$ ) students participated in the focus group.**

## Questionnaire Responses

- The majority were sophomores ( $n = 16$ ), ( $n = 8$ ) were seniors, and the remaining ( $n = 9$ ) were Juniors.
- The majority of the respondents ( $n = 16$ ) agreed or strongly agreed that flipped classrooms increase the quality of learning.
- Less than half the respondents ( $n = 14$ ) agreed or strongly agreed that flipped classrooms increased the quality of learning for students while one-third disagreed with this statement ( $n = 11$ ).

# Findings Cont.

## Sample

- ( $n=33$ ) students participated in the Qualtrics questionnaire.
- ( $n=46$ ) students participated in the focus group.

## Focus Group Responses

- The majority were sophomores ( $n = 22$ ), ( $n = 8$ ) were seniors, and the remaining ( $n = 16$ ) were Juniors.
- Participants reported their attitudes and expectations related to participating in a flipped class, as well as factors that impacted their engagement.



# “Participants’ Responses”

## Attitudes toward Behavior

“I’ve participated in e-learning before, I felt comfortable doing it.”

“When I had questions, the instructor responded to them.”

“I haven’t taken a class like this before, but I was pretty comfortable with it.”

“Yeah, I didn’t realize the course was a flipped classroom, I would have preferred a completely face-to-face class.”

# “Participants’ Responses”

## Subjective Norms

“I don’t feel like I got much out of the online part, [like], I thought it would have been taught different, everything should have been in person.”

“The instructor was approachable and that made asking questions easier.”

“Although we had time to do assignments during class, my group for the project did our work at home, so coming to the face-to-face session was pointless.”

# “Participants’ Responses”

## Perceived Behavioral Control

“It was pretty easy to participate in the class, everything I needed was there, I wish there was more interaction with the instructor out of class time, just to be able to answer questions when I needed them answered.”

“I didn’t have a hard time in the class, like I said, I’ve done this before; it wasn’t hard to understand what to do.”

“It was not what I thought, sometimes I felt like I would have longer to submit an assignment but by the time I remembered to submit it, I would be locked out of the system.”

# Conclusions

The following conclusions have been made as a result of this study:

- Students with positive attitudes toward e-learning reported being able to mitigate actual behavioral controls and thus were more engaged.
- The instructor's support mitigated perceived behavioral controls.
- Blended learning opportunities enhance learning for participants.
- Proper facilitation is vital to both satisfaction and student achievement.

# Recommendations

The following recommendations have been made as a result of this study:

- Set structured deadlines for assignments to be completed.
- Set virtual office hours in which the instructor is virtually available to answer questions and handle concerns.
- Provide greater virtual scholarly interaction for a more meaningful learning atmosphere for all participants.

***Thank You!***

***QUESTIONS***

# References

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