

Conceptualizing the Integration of Team-Based Learning into a Capstone Farm Management Course: Advice from Larry Michaelsen



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Introduction



- Learning is not a spectator sport (Chickering & Gamson, 1987)
- Lecturing most frequently utilized by agricultural educators, and reaches mostly lower levels of cognition (Estepp, Stripling, Conner, Giorgi, and Roberts, 2013)
- Instructors need to be innovative when designing and delivering courses in higher education (Conner et al., 2014)

Introduction



- Student-centered instruction is becoming a heavily researched topic (Conner et al., 2014; Hains & Smith, 2012; Herreid & Schiller, 2013; Tucker, 2012).
- Research has demonstrated that college students learn more when they become involved in the education process (Bonwell, & Eison, 1991; Lake, 2001, Michaelsen, Knight, & Fink, 2004).

Introduction



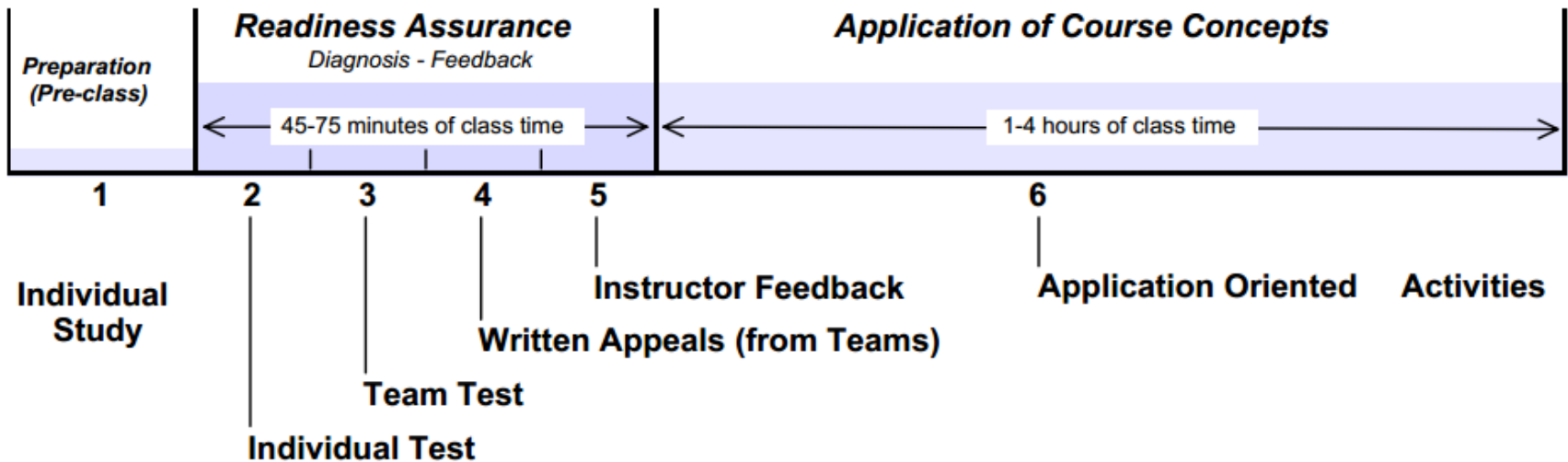
- Is face-to-face interaction more important while students are being introduced to content, or when they are struggling to apply it? (Sams & Bergmann, 2013).

Team-Based Learning



- Effective, interactive teaching method that incorporates peer teaching and enhances enthusiasm for learning (Parmalee, 2007)
- Requires a complete rethinking of course goals and a serious commitment to utilizing learner-centered instruction (Sibley & Ostafichuk, 2014)

Structure of TBL



Setting



- AgEdS 450
- Capstone course for all Ag Studies majors
- A working farm (~1,200 acres), completely student managed
 - Students make all decisions on the farm

Problem & Purpose



- “learners who are not engaged in meaningful learning are either at risk for failure or become adept at memorizing rote facts, but are not proficient at solving complex problems with an ever changing knowledge base” (Doefert, 2011, p. 1)
- Contextualize the process of flipping the current, lecture-based structure of the AgEdS 450 course to TBL format.

Epistemological Perspective



- Rooted in interpretivism
 - Focused on pragmatism
- “...interpretive frameworks based on pragmatism focus on the outcome of the research...”(Creswell, 2013, p. 28)

Methodology



- The researchers utilized a semi-structured interview protocol (Savin-Baden and Major, 2013)
- Following a semi-structured interview protocol allows for additional questions in response to participant comments and reactions

Data Collection



- Face-to-face interview with Dr. Larry Michaelsen
 - Transcribed verbatim
- Thorough literature review of the following:
 - TBL
 - Experiential Learning
 - Capstone Course

Data Analysis



- **Thematic Analysis**
 - Categories were allowed to emerge from the data
- **Inter-coder reliability (Denzin & Lincoln, 2000)**
 - The principal researcher and an individual not associated with the study compared the coded data to enhance inter-coder reliability
- **Credibility (Lincoln & Guba, 1985)**
 - Addressed by utilizing multiple researchers in order to triangulate the data after the transcription process to ensure the accuracy of the statements made by the interviewee

Findings



- **Four main themes**
 - Application of Content
 - Student Accountability
 - Decision Making
 - Evidence

Application of Content



- Most consistent theme that emerged from the data
- Michaelsen spoke to the importance of applying new and transformational knowledge to real-world situations
- he wanted to “teach where the application was the focus” and “I did not want to lecture... the reason I went to business school was to work with applications.”

Student Accountability



- Michaelsen noted that an instructor's physical presence can hinder learning, and by holding students accountable for their learning before class, it helps eliminate this issue.
- The students are held accountable to themselves through the IRAT, and they're held accountable to their teams on the TRAT.

Decision Making



- His students are tasked with locating specific businesses in prime locations in Oklahoma/Missouri.
- Michaelsen stated in regards to TBL in a AgEdS 450, “at various stages along the way, they [students] have to make decisions on the farm,” and “that’s exactly the kind of decision that needs to be made.”

Evidence



- Discussion he noticed taking place included the same information he would have delivered in a full lecture.
- In only one instance, “an individual outscored the worst performing team” in the course.
- Students perform better in a team.

Questions



- Thank you!