

Changes Experienced by Secondary Agriculture Teachers After a STEM-Focused Professional Development Experience

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Purpose

- The purpose of this study was to understand the changes experienced by Agritech Ambassadors after a STEM-focused professional development experience facilitated by Louisiana State University

Methodology

- This inquiry was based in an instrumental case study approach (Stake, 1995)
- Data sources: a five-person focus group and daily written reflections
- We used three first cycle coding methods: 1) in vivo, (2) descriptive, and (3) structured (Saldana, 2015)
- Axial and thematic analysis were also used

Conceptual Framework

- Data from this study was analyzed using Guskey's (2002) model of teacher change

Findings

Theme 1: Teacher Beliefs regarding STEM

"[This professional development] was progressive not only [regarding] the curriculum, but I think as far as the teachers also being able to improve their teaching [and student expectations]."

Theme 3: Approach to Ensuring Student Success

"[For IBCs]...a lot of teachers do not give their students enough [exposure to STEM]. This [professional development experience] will help them raise their standards higher..."

Theme 2: Classroom Practices for Recruitment and Retention

"[these concepts] will serve as a really good recruiting tool...I mean [its] like [the] little things they are going to remember and what's going to make them come back."

Theme 4: Barriers to Change

Regarding the biggest challenges:

"With COVID, it's been a very big learning curve...[and] breaking them in to [incorporate STEM concepts]"

Recommendations and Implications

- Increased use of reflection as part of the professional development process
- Further integrating STEM concepts within agricultural experiences will help to facilitate more impactful learning

