

AAAE National Conference 2021

Research Poster Session

Session #2, Thursday, May 27th from 11:00 AM-Noon EST

Room: Soft-Skills, Standards, and Self-Efficacy. Oh My!

Facilitator: Mr. Andrew Hauser

A Longitudinal Investigation of Soft Skill Development of Agricultural Education Students

INTRODUCTION

The National Research Council's 2009 and 2012 reports called for the development of 21st century skills among U.S. students (Roberts et al, 2016). To address this need, numerous research studies have analyzed soft skill development and its relationship with experiential learning and agricultural education.

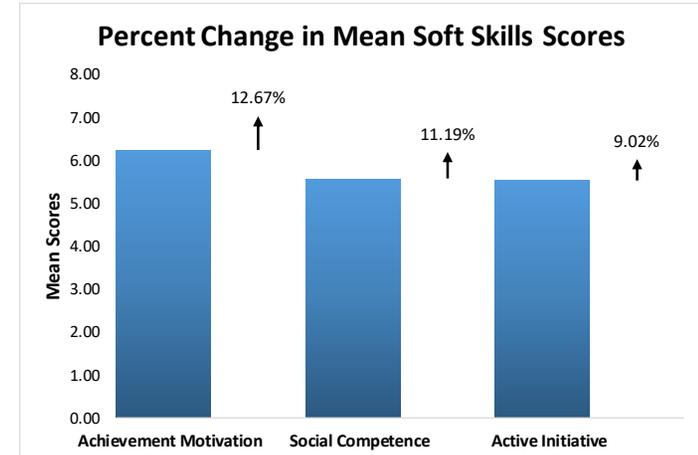
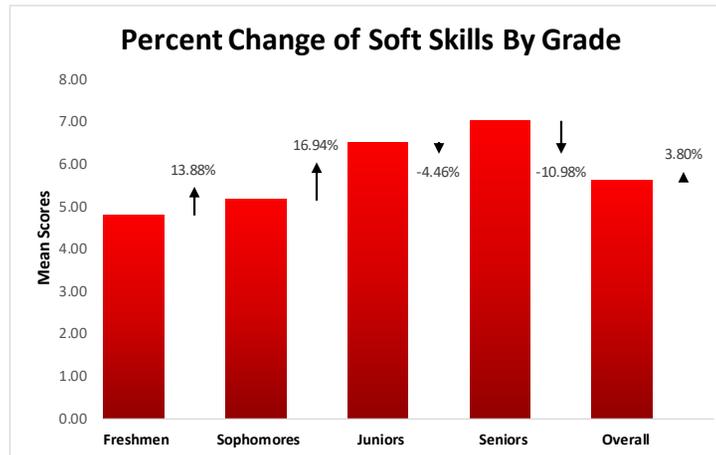
This longitudinal research study sought to determine changes in soft skills development by high school students enrolled in agricultural education programs over a four-year period from 2016 to 2020. The study also analyzed the difference in soft skill development between students who were at varying grade levels 9th-12th. Soft skills were measured using the Life Effectiveness Questionnaire-H (LEQ-H). "The Life Effectiveness Questionnaire Version H was developed by Neill, Marsh and Richards (1997) for the purpose of measuring the changes associated with adventure or other experiential education intervention programs" (McLeod & Craig, 2004, p. 4).

METHODOLOGY

- The researchers conducted a longitudinal study of agriculture education students from five schools.
- Students volunteered to complete the LEQ-H in mid-August, 2016 with the second round of survey data collected in the Fall of 2020.
- The 24 item, 8-factor model measures the following constructs: Time Management, Social Competence, Achievement Motivation, Intellectual Flexibility, Task Management, Emotional Control, Active Initiative, and Self Confidence (Kechagias, 2011).
- After failed attempts to reach students through their teachers due to the pandemic, the LEQ-H was administered online using Qualtrics.
- The survey participants range in grade level 9th through 12th and have pursued different educational/career paths after graduation.
- By analyzing individual scores and group level data researchers determined changes in soft skill development over the four-year period.

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Life Effectiveness Questionnaire (LEQ-H)	
Soft Skills Factors	Description
Time Management	Makes optimum use of time.
Social Competence	Personal confidence and self-perceived ability in social interactions.
Achievement Motivation	Motivated to achieve excellence and put the required effort into action to attain it.
Intellectual Flexibility	Can adapt his/her thinking and accommodate new information from changing conditions and different perspectives.
Task Leadership	Can lead other people effectively when a task needs to be done.
Emotional Control	Maintains control when he/she is faced with potentially stressful situations.
Active Initiative	Likes to initiate action in new situations.
Self Confidence	Confidence in his/her abilities and the success of their actions.

RESULTS

- Of the 164 FFA members who participated in the 2016 survey, eight (5%) FFA members completed the 2020 survey.
- Individual results identified an overall mean increase in soft skills of 5.73 (3.8%), indicating that students enrolled in agriculture courses from 2016 to 2020 did improve their soft skill development.
- The largest overall improvement occurred in Achievement Motivation (12.67%), Social Competence (11.19%), and Active Initiative (9.02%).
- Major improvements occurred with 9th graders with Time Management (14%), Social Competence (25.45%), Achievement Motivation (16.18%), Intellectual Flexibility (34.62%), Active Initiative (25.93%), and Self Confidence (10.92%).
- Percent change in overall soft skills per grade level include the following, freshman (13.88%), sophomores (16.94%), juniors (-4.46%), and seniors (-.98%).

CONCLUSIONS

- Agricultural Education Programs could benefit from highlighting the need for 'soft' skills, as well as 'hard' or technical skills.
- Students could improve their soft skills development through continued enrollment in agricultural education courses.
- Continued involvement in FFA activities and periodic soft skill assessments to track students' soft skill development could better prepare students to meet the challenges of the 21st Century.

A National Review of State Standards Relevant to Agriculture Teacher Performance and Program Quality

Haley Q. Traini, Ashley Yopp, Richie Roberts, Travis Park & Ed Osborne

Purpose

Decision-makers have increasingly used quality standards to improve performance outcomes (Donaldson & Woulfin, 2018). These trends have appeared to influence how teachers view success in secondary agricultural education (Stair et al., 2016).

The purpose of this study was to describe commonalities and differences among state standards relevant to agriculture teacher performance and program quality.

Framework

When creating policy decision-makers often draw on their beliefs, experiences, social interactions, and worldviews to organize their ideas into a cognitive framework that guides their logic.

Cognitive sensemaking (Coburn, 2006) was used as a lens to examine how decision-makers framed teacher performance and program quality to evaluate success.

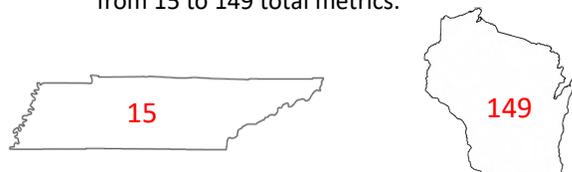
Methods

Content analysis of standards, metrics, and quality indicators used to evaluate agriculture teachers and/or programs in each state as provided by state agricultural education leaders (N=50).

Five researchers analyzed each document using descriptive codes to identify links to the National Program Quality Standards for Agriculture, Food, and Natural Resource Education.

Results

- ✓ 47 responses, 32 documents provided
- ✓ 21 documents designed specifically for Ag Teachers
- ✓ Length ranged from 1 pg (TN) to 124 pgs (AZ)
- ✓ Variety in # of main and secondary standards ranged from 15 to 149 total metrics.



EMERGENT STANDARDS

- 104 Curriculum & Program Design
- 59 Instruction
- 90 Facilities & Equipment
- 86 Leadership & Personal Development in FFA
- 53 Emergent Standards

- ✓ Majority of documents were organized into rubrics or rating systems with varying scales and degrees of detail
- ✓ 13 documents were to be used on an annual basis by the agriculture teacher
- ✓ Only 1 state (IL) delineated standards by levels of experience
- ✓ 36 documents implied all agriculture teachers must meet the same requirements regardless of experience

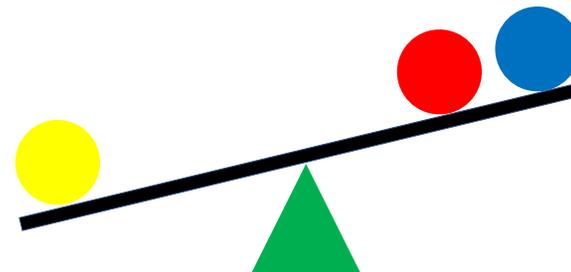
Conclusions

When viewed through the lens of cognitive sensemaking (Coburn, 2006), results from this study illuminated that great variety existed by which secondary agriculture teachers and their programs are evaluated. Quality indicators varied greatly from state to state.

Impact on Profession

Secondary agriculture teachers have numerous responsibilities, many of which go beyond classroom instruction.

Standards indicated an imbalance in the total agricultural education model.



Recommendations

Future studies should engage in an in-depth analysis of the content of each document to understand the philosophical and logical underpinnings (Coburn, 2006).

For practitioners and state leaders, we recommend a critical examination of standards and evaluation with attention paid to *who* (e.g. individual vs. program) is being evaluated and *what* are the rewards or consequences of evaluation.



Building Muscle: Identifying Resiliency Needs of Beginning Agriculture Teachers

Marshall Swafford, Frank Hodnett, Rachel Boren



Introduction

- Researchers have indicated that teachers with higher levels of resilience have more cognitive and physical energy to manage their responsibilities. (Thiemann et al., 2014)
- Resiliency can lead to enhanced teacher effectiveness, improved job satisfaction, and the flexibility to adjust to changing conditions. (Bobek, 2002)
- Hoopes (2017) identified seven resilience muscles that individuals can utilize to maintain or regain productivity in the midst of challenging circumstances and disruptive change.
- Researchers have asserted that resilience is not a fixed trait, and can be improved. (Hoopes & Kelly, 2004)

Study Purpose

The purpose of this study was to explore beginning agriculture teachers' perceived areas of concern about their resilience from which induction program leaders can provide resilience building programming.

Theoretical Framework

- Henderson and Milstein's (2003) theory of resilience, and Hoopes' (2017) concept of resilience muscles guided this study.
- Hoopes described seven areas (*muscles*) that can be used by resilient individuals to maintain or regain productivity, motivation, commitment, and well-being in challenging situations.
- Connor (1993) noted that resilient individuals are able to see the opportunity in changing situations, and therefore, tend to be more successful.
- As it relates to the present study, building resilience through induction programming, Easterly and Myers (2018) noted a link between professional development and resilience.

References

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Methods

- The participants for this study were first-year (7) agriculture teachers in New Mexico enrolled in the Beginning Agriscience Teacher Support (BATS) program.
- BATS is an induction program for beginning teachers in a collaborative agreement between New Mexico State University and Eastern New Mexico University funded by a USDA-Higher Education Challenge Grant.
- During the initial BATS workshop, the participants were provided instruction regarding resilience, characteristics of resilient teachers, and strategies to build resilience.
- At the conclusion of the workshop, the participants engaged in semi-structured interviews with program leaders regarding their resilience *muscles*.
- The interviews were recorded and transcribed by BATS program leaders.
- Transcripts were qualitatively coded for resilience key words and then categorized into the respective resilience *muscle*.

Results

- All resilience muscles were identified as areas where improvement was needed.
- Creativity and Experimenting ($f = 5$) were the most common *muscles* needing improvement.
- The participants were least concerned about their Confidence and Structure ($f = 2$) *muscles*.

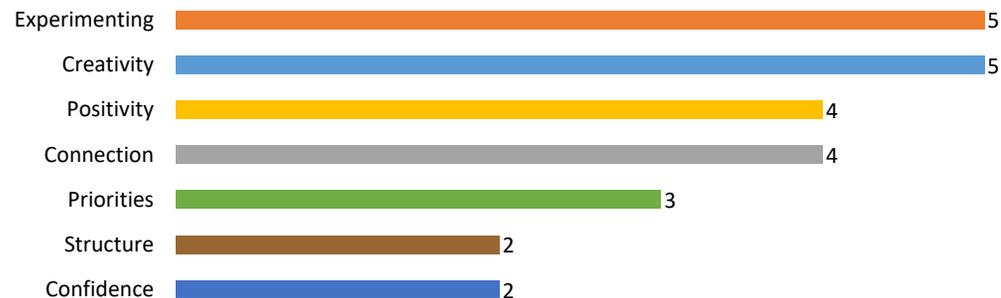


Figure 1. Resilience Muscle Improvement Areas ($N = 7$)

Conclusions/Recommendations

- The participants were the most resilient in creating structure out of chaos and confidence in their abilities to navigate challenges.
- The participants had concerns regarding their abilities to manage and accept challenges along with finding creative solutions to solve them.
- It is recommended that researchers continue to identify effective resiliency-building strategies that can be embedded in preservice teacher education program.
- Instruction in resiliency-building strategies should also be provided to experienced teachers through in-service programming.
- All teachers should continually monitor their resilience and employ reflection as a tool to identify their strengths and weaknesses that may be maintained and improved.

Changes in Induction-Year Teachers' Self-Efficacy over the Fall Semester

Dr. Jessica M. Toombs, Dr. Robert Terry Jr., Dr. Jon W. Ramsey, Dr. J. Shane Robinson, Dr. Toni A. Ivey

Oklahoma State University

Introduction

-Teacher self-efficacy (TSE) is an important personal characteristic (McKim & Velez, 2016)

-Can impact job satisfaction, retention, and student achievement (Kasalak & Dagyar, 2020)

-TSE likely to change with personal and vicarious experiences over first semester (Bandura, 1997; Moir, 1999)

Methodology

-Two pre-existing instruments (Rubenstein et al., 2014; Wolf, 2011) with instruction, FFA, and SAE constructs

-Surveyed Oklahoma SBAE induction-year teachers in August and December ($N = 29$)

-19 completed both instruments (65.62% response rate)

Conclusions

-TSE began high and remained stable

-Is this an overconfidence of perceived ability?

Participant	Initial TSE	Final TSE	Difference
1	7.65	8.49	0.84
2	6.90	7.65	0.75
3	7.07	7.78	0.71
4	6.57	7.23	0.66
5	5.15	5.75	0.60
6	6.73	7.18	0.45
7	6.97	7.26	0.29
8	7.85	8.07	0.22
9	5.70	5.89	0.19
10	8.10	8.08	-0.02
11	6.75	6.70	-0.05
12	6.85	6.77	-0.08
13	8.50	8.33	-0.17
14	6.85	6.60	-0.25
15	5.87	5.62	-0.25
16	6.62	6.20	-0.42
17	8.42	7.60	-0.82
18	7.15	5.50	-1.65
19	8.10	5.87	-2.23
Mean (SD)	7.04 (0.90)	6.98 (0.97)	-0.06 (0.80)

What is your level of capability to:

	No Capability	Very Little Capability	Some Capability	Quite a Bit of Capability	A Great Deal of Capability
Use a variety of teaching techniques	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Examining Compassion Fatigue and Compassion Satisfaction in Florida School-Based Agricultural Education Teachers



Agricultural Education
& Leadership
University of Missouri

Introduction

Compassion fatigue is a gradual lessening of compassion over time (Figley, 1995)

Compassion satisfaction reduces symptoms of burnout and compassion fatigue (Bakker et al., 2006; Figley, 1995; Stamm, 2002)

Justin Sharpless
Dr. April Steen
Dr. Jon Simonsen

Theoretical Framework

The researchers used Stamm's (2010) Professional Quality of Life and Bronfenbrenner's (1977) Ecological Systems Theory as models for this study

Objectives

1) Describe the level of compassion fatigue and compassion satisfaction in Florida school-based agricultural education teachers.

2) Determine the relationship between the demographic variables of gender, age, years of teaching, certification method, and the level of compassion fatigue and compassion satisfaction in Florida school-based agricultural education teachers.

Methodology

- Instrumentation used in this study consisted of the ProQOL scale (Stamm, 2010) and demographic questions
- The target population for this study was all Florida SBAE teachers
- The response rate for this study was 28.6% (n= 133)

Findings

- Participants had moderate amounts of compassion fatigue ($M = 48.12$, $SD = 11.69$) and compassion satisfaction ($M = 38.16$, $SD = 7.157$)
- Gender, Age and Years Teaching were significantly positively correlated with compassion satisfaction
- Gender, Age and Certification Method were significantly negatively correlated with compassion fatigue

Recommendations

- Recommended that further research is completed on the phenomenon of compassion fatigue within a broader sample of SBAE teachers
- SBAE teachers should receive education around the phenomenon of compassion fatigue

Motivations and Needs of Volunteers within School-Based Agricultural Education (SBAE) Programs

Jocelyn Bandle, Tyson J. Sorensen, Josh Stewart

Research Background

- Shortage of trained agriculture teachers
- SBAE is a demanding profession
- Need for understanding volunteer motives in SBAE programs and training needs

Research Purpose

- Identify the motivations and needs of volunteers within SBAE programs

Research Methods

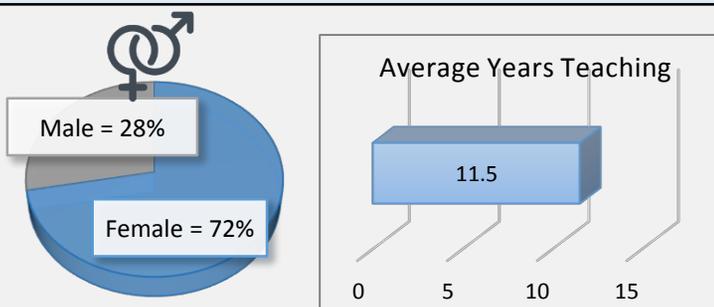
- Anonymous online survey to SBAE volunteers in Utah and Oregon ($n = 112$)
- 3 Part Survey: (1) Volunteer Functions Inventory (VFI) scale; (2) Training needs; (3) Roles/characteristics

Research Conclusions

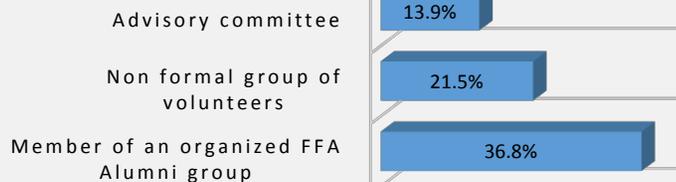
- SBAE volunteers spend most of their efforts on FFA activities
- SBAE volunteers are career-motivated (improve career prospects) and protective-motivated (to protect ego from difficulties of life)
- SBAE volunteers have several professional and volunteer training needs

Research Findings

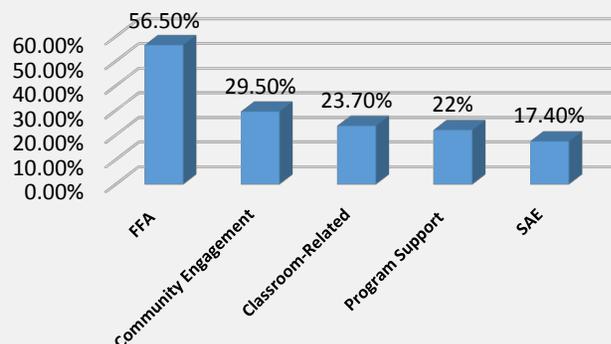
RQ1- What are the characteristics of SBAE volunteers?



Types of Volunteers



Volunteer Activities



RQ2- What are SBAE volunteer motivations?

Motives for Volunteering	Mean
Career	3.94
Protective	3.93
Enhancement	3.39
Social	2.99
Understanding	2.80

5-point scale (5 = strongly agree, 1 = strongly disagree)

RQ3- What are the training needs of SBAE volunteers?

- Opportunities and resources available
- Volunteer leadership-related topics (recruitment strategies, leadership training, establishing a formal organization, etc.)
- CDE coaching
- SAE Supervision

Recommendations

- Provide training and needed resources to SBE volunteers, and in-service & preservice teachers
- SBAE programs should capitalize on career advancement of volunteers
- Replicate study with better sampling techniques
- Explore nuances of protective motives among SBAE volunteers

