

# The Masks We Wear: A Quantitative Analysis of Motivational Factors of School Based Agriculture Education Teachers During a Pandemic

Christopher A. Clemons<sup>1</sup>, Jason McKibben<sup>2</sup>, James Lindner<sup>3</sup>

## Abstract

Prior to the COVID-19 pandemic, school-based agriculture education (SBAE) was framed within a traditional approach to teaching and learning; teachers and students shared classrooms, met learning objectives, and promoted their local FFA programs. This study address the degrees of personal and professional motivation experienced by secondary agriscience teachers transition to remote/distance education instruction during the COVID-19 global pandemic. The theoretical framework for this study was structured within expectancy value theory (Atkinson, 1957) and bound by Weiner's attribution theory (1972). Atkinson (1957) postulated that individual decisions dictate a person's role in behaviors associated with a defined task. Three research objectives guided this investigation to more clearly understand teachers' perceptions of personal and professional motivation: identify the characteristics of Alabama SBAE teachers during the pandemic, articulate how COVID-19 affected SBAE teacher's personal dispositions toward teaching agriscience education, and understand SBAE teachers' professional motivation during COVID-19. The questionnaire invitation was sent to 115 ( $n = 115$ ) middle/secondary school agriscience education teachers in Alabama with 64 ( $n = 64$ ) respondents attempting the questionnaire. Respondents indicated positive motivation in addressing their professional duties as a classroom teacher even as they lack the traditional classroom or lab. Teachers were motivated to make positive changes in their program with regards to FFA and SAE but are less than positive about their ability to make those changes in the online learning modality. This is consistent with existing understandings of online learning and the embrace of novel experiences.

**Keywords:** motivation; agriculture education; pedagogy; FFA; SAE; remote; online; instruction; COVID-19; pandemic

**Author Note:** Christopher A. Clemons, <https://orcid.org/0000-0001-9879-0888>

Jason D. McKibben, <https://orcid.org/0000-0003-2080-202X>

James R. Lindner, <https://orcid.org/0000-0002-1448-3846>

Correspondence concerning this article should be addressed to Christopher A. Clemons, Assistant Professor Agriscience Education, Auburn University, AL 36849; email: [cac0132@auburn.edu](mailto:cac0132@auburn.edu)

## Introduction

The COVID-19 pandemic emerged in the United States in January of 2020 (Centers for Disease Control and Prevention, [CDC], n.d.) requiring global levels of change on an unprecedented scale

---

<sup>1</sup> Christopher A. Clemons is an Assistant Professor of Agriscience Education in the Department of Curriculum and Teaching at Auburn University, Haley Center, Auburn, AL 36849, [cac0132@auburn.edu](mailto:cac0132@auburn.edu)

<sup>2</sup> Jason D. McKibben is an Assistant Professor of Agriscience Education in the Department of Curriculum and Teaching at Auburn University, Haley Center, Auburn, AL 36849, [jdm0184@auburn.edu](mailto:jdm0184@auburn.edu)

<sup>3</sup> James R. Lindner is a Professor of Agriscience Education in the Department of Curriculum and Teaching at Auburn University, Haley Center, Auburn, AL 36849, [jrl0039@auburn.edu](mailto:jrl0039@auburn.edu)

(Chaplin, 2020). As a result, school-based agricultural education (SBAE) teachers experienced novel alterations to traditional teaching and learning environments (d'Orville, 2020). Van Lancker and Parolin (2020) reported worldwide school closures affected 80 percent of school age children while 55.1 million students representing 124,000 U.S. public and private schools experienced closures (Coronavirus and School Closures, 2020). Lindner et al. (2020) noted agriscience teachers in Alabama and Georgia transitioned rapidly “from preparing instructional lessons, supervising agricultural experiences, and preparing for [spring] events in a strictly face to face setting, to coping with mandates of school closings and calls for remote instruction with no face to face interaction” (p. 1). This study address the degrees of personal and professional motivation experienced by secondary agriscience teachers transition to remote/distance education instruction during the COVID-19 global pandemic.

In the context of this study, SBAE teacher’s balance between personal and professional motivation was studied during the events of COVID-19 as a framework for investigation. Solomonson and Retallick (2018) supported the interaction of personal and professional balance experienced by SBAE teachers as the potential for further developing imbalances between the competing processes.

Remote and distance education are not necessarily new concepts in agricultural education. Born and Miller (1999), Dooley et al. (2003), Miller and Miller (2000), and Murphy and Terry (1998), conducted some of the earliest research in remote and distance education in SBAE with specific focus towards instructional competencies. Future opportunities for live, two-way interaction between teacher and student through advancements in telecommunications helped establish the technological foundations in online learning environments. Purdy and Right (1992) addressed the potential for future deployment of online educational systems, stating “it is not that the technology underpinning distance education drives the system but rather that fundamental changes in teaching style, technique, and motivation must take place to make the new ‘classrooms’ of the present and future function effectively” (p. 4). Rapid transition to remote and distance learning in 2020 was born from a global need to protect the public and mitigate the spread of COVID-19 while planning quality educational activities for students.

Miller and Miller (2000) reported SBAE teachers desire to use a network for distance learning as a convenience without predicting the relevance their findings would have in 2020. Edwards et al. (2004) indicated the likelihood of SBAE teachers enrolling in post-secondary distance education courses. While Lindner, et al. (2020) reported the technological awareness secondary teachers experienced during remote and distance education. These findings may be evidence of a knowledge gap between instruction as an adult learner being counterproductive to teaching distance and remote education courses for SBAE students. Our profession should address how SBAE teachers perceive their own levels of personal and professional motivation when presented with online pedagogical delivery methods.

Prior to the COVID-19 pandemic, SBAE was framed within a traditional approach to teaching and learning; teachers and students shared classrooms, met learning objectives, and promoted their local FFA chapters. Conner et al. (2017) reported the role of teachers had shifted from the primary source of knowledge to a more ubiquitous facilitator of the learning process. COVID-19 has rapidly facilitated this alteration of pedagogical approaches where teachers became facilitators in synchronous and asynchronous digital classrooms. Prior to COVID-19 SBAE teachers were motivated by their pragmatic teaching methods (Frost & Rayfield, 2020), face to face interaction with their students, and the energy of the school and its constituent body. Sorenson et al. (2017) cautioned traditional instruction in agricultural education, unexpected transitions, and balancing multiple roles as an SBAE teachers could be detrimental to feelings of security and contentment.

Feelings of professional contentment were often reflected in the teacher's approach to managing and advising their local FFA chapters. Engaging FFA members in the broad scope of daily activities was closely associated with traditional instruction. COVID-19 disrupted the normalcy of teachers' personal and professional lives, and the demands of teaching and balancing work and family expectations (Sorensen & McKim, 2014). Established student-teacher relationships were altered (Tate, 2020); professional expectations, and technical abilities Lindner, et al. (2020) to teach remotely became a measure of a teacher's self-efficacy.

### **Theoretical Framework**

Personal and professional motivation frameworks have commonly been investigated in the traditional settings of classroom instruction. Using COVID-19 as a lens of inquiry, teachers were facing unknown factors that affected how they perceived their role in the professional classroom. In the context of this study, expectancy value theory was framed in the assumption that teachers' expectations of successful online or distance instruction may interfere with their performance and ultimately affect their sense of value in a given activity. Wigfield and Eccles (2000) supported expectations of one's ability having a prominent role in motivational theories.

The theoretical framework for this study was structured by expectancy value theory (Atkinson, 1957) and bound by Weiner's attribution theory (1972). Atkinson (1957) postulated that individual decisions dictate a person's role in behaviors associated with a defined task. Eccles et al. (1998) and Pintrich and Schunk (1996) further explained Atkinson's findings that individual's persistence and vigor of carrying out the task was largely based on their motivation for achievement. Eccles et al. (1983) indicated measured expectancies for success as the individuals' perceptions of how well they may perform on present or future tasks. These assumptions of performance were further disaggregated whereas ability and expectancies referred to the time frame in which the individual is performing. Eccles et al. (1983) referred to ability as the "beliefs which focus on the present" and expectancies "that focus on future performance" (p. 70).

The foundational assumptions of expectancy value theory reside within an individual's choice, persistence, and performance as measures of the intrinsic value associated with perceptions of achievement. It is within these perceptions of self-value that we weigh teachers personal and professional motivation. Ruth et al. (2020) reinforces analysis of an individual's perceived abilities and their relation to a task or behavior as a measure of their self-conceptualization of abilities. Ruth, et al. (2020) further operationally distinguished differences between perceived expectations and perceptions of ability being reflective of the overall task success.

Weiner's attribution theory (1972) conceptualized the framework for understanding personal and professional dispositions of teachers operating in distance and remote teaching environments. Weiner (1972) attributed participant behaviors as a result of internal or external variables. An important distinction of Weiner's (1972) attribution theory exists between the willingness of the individual's behavioral choices (intentionality) and the underlying intentions to expend effort (motivation) to complete the task.

Weiner (1972) indicated the causal biases of interpreting success or failure have important implications when striving for achievement. Weiner's (1972) intent was to acknowledge the influences of causality between achievement and systemic disparities related to perceptions of causal relationships within achievement needs. This potential causality can be viewed as a measure of self-efficacy of given task; individuals with high achievement motivation ascribe their success to high ability and positive effort and potential failure as a lack of effort. In comparison, Wiener and Kukla (1970) indicated

individuals with low motivational achievement perceive negative outcomes as a measure of their effort; essentially, attempting and trying the task are closely correlated to their personal self-efficacy.

This research study aligns closely with research priority three of the American Association for Agricultural Education's National Research Agenda, question three: "what methods, models, and practices are effective in recruiting agricultural leadership, education, and communication practitioners (teachers, extension agents, etc.) and supporting their success at all stages of their careers"? (Stripling & Ricketts, 2016, p. 31).

### Purpose and Objectives

The purpose of this quantitative study was to investigate the degrees of personal and professional motivation experienced by secondary agriscience teachers during the COVID-19 global pandemic. Three research objectives guided this investigation to more clearly understand teachers' perceptions of personal and professional motivation: (1) identify the characteristics of Alabama SBAE teachers during the pandemic, (2) articulate how COVID-19 affected SBAE teacher's personal dispositions toward teaching agriscience education, and (3) understand SBAE teachers' professional motivation during COVID-19.

### Methods

A statewide study was conducted to better understand the personal and professional motivational factors affecting secondary school agriscience teachers in Alabama. The available population for this study consisted of 319 potential study respondents from Alabama SBAE teachers as of April 2020. The population contact list was requested through the Alabama Association of Agricultural Educators membership roster. A review of the provided membership roster identified potential gaps in membership reporting (i.e. teachers who have moved being listed at previous schools, retired, et). Frame error was addressed by the research team for accuracy and appropriateness as supported by Lindner et al. (2001). Potential respondents whose information could not be reconciled were removed ( $n = 18$ ) from the revised population list ( $N = 301$ ).

A representative sample ( $n = 135$ ) of the population was achieved using Cochran's (1977) formula for assuring adequate coverage of the larger population. Cochran's (1977) formula addresses an acceptable margin of error (*alpha*) set *a priori* of .05. Oversampling (Cochran, 1977) was implemented to account for invalid email addresses, respondents opting out of the questionnaire, and to mitigate the potential for incomplete or missing participant data. Respondents were selected on pre-defined criteria for inclusion within the study: currently teaching SBAE, currently poses a professional certification in agricultural education, and a member of the Alabama FFA Association.

Analysis and selection of potential respondents relied on a randomized sample representative of the total population of each Alabama Association of Agriculture Education membership districts. To determine a representative sample, the total membership was identified and weighed against statewide membership. This indicated the percentage of members in the north with 136 teachers, while central and south district have 95 and 88 teachers, respectively. A randomized participant selection process reflected the overall percentage of district membership: north (43%), central (30%) and south (27%).

The instrument was developed based on prior research in teacher motivation and educational challenges arising from COVID-19 Alabama. Questions and statements were arranged in five categories: (1) professional self-awareness, (2) internal professional motivation, (3) external professional motivation, (4) experiential motivation, and (5) extent of individual motivation. The overarching focus of the instrument was to assess how SBAE teachers managed personal and

professional motivation during remote instruction. Chronbach's alpha was calculated *post hoc* and indicated high reliability (Santos, 1999) for the instrument ( $\alpha = .95$ ) as described by George and Mallory (2003).

Study respondents were contacted using Qualtrics survey software providing respondents a unique link to access the questionnaire. Dillman et al. (2014) supported the use of electronic-based development programs for improved design, data control, access, reporting, and cost. The questionnaire invitation was sent to 135 ( $n = 135$ ) SBAE teachers in Alabama with 64 respondents attempting the questionnaire. An *a priori* determination was made to disregard any responses not meeting a 75 percent instrument completion rate. This yielded 56 ( $n = 56$ ) usable responses. The response rate may be reflective of SBAE teachers decreased internal individual motivation during the COVID-19 pandemic. Three email reminders were sent to non-respondents at one-week intervals with 16 ( $n = 16$ ) additional respondents. Dillman (2000) addressed the potential for sampling error in survey-based research as the "cornerstones for conducting a quality survey" (p. 9). To reduce the potential for non-response error (Lindner et al., 2001) a comparison of early and late respondents identified no statistically significant differences within the instrument.

Additional analysis was conducted to determine an overall mean score for personal and professional motivation. This data analysis is represented by the total mean score for each statement area. A grand mean score by statement area was calculated to give insights for middle/secondary agriscience teachers motivation during COVID-19.

## Results

The purpose of this quantitative study was to investigate the degrees of personal and professional motivation experienced by SBAE teachers during the COVID-19 global pandemic. Three research objectives guided this investigation to more clearly understand teachers' perceptions of personal and professional motivation: (1) identify the characteristics of Alabama SBAE teachers during the pandemic, (2) articulate how COVID-19 affected SBAE teacher's personal dispositions toward teaching agriscience education, and (3) understand SBAE teachers' professional motivation during COVID-19.

To better understand the realities of professional and personal motivation experienced by SBAE teachers during the global pandemic a mean of means score (Table 1) was calculated. In the context of this analysis descending numerical order was appropriate to convey areas of personal and professional concern related to motivation. The areas considered were Extent of Individual Motivation ( $M = 2.85$ ), Experiential Motivation ( $M = 2.38$ ), Internal Professional Motivation ( $M = 2.28$ ), External Professional Motivation ( $M = 2.08$ ), and Professional Self-Awareness ( $M = 1.90$ ).

**Table 1**  
*Overall Personal and Professional Motivation Outcomes*

| Areas of Personal and Professional Motivation | <i>M</i> | Ranking |
|---|----------|---------|
| Extent of Individual Motivation               | 2.85     | 1       |
| Experiential Motivation                       | 2.38     | 2       |
| Internal Professional Motivation              | 2.28     | 3       |
| External Professional Motivation              | 2.08     | 4       |
| Professional Self-Awareness                   | 1.90     | 5       |

*Note:* Lower scores indicate more positive feelings. Range potential: 1-5.

**Objective One: Characteristics of Alabama SBAE Teachers During COVID-19.**  
***Personal and Professional Characteristics of Respondents***

To address the characteristics of the respondents (Table 2), participants characteristics were analyzed to provide a deeper context to the results of this study. Participants self-identified as married (71.1%), white (95.7%), male (76.1%), over 40 (45.7%), and possessed a master's degree (50%).

**Table 2**  
***Respondent Characteristics***

| Personal Characteristics   | <i>f</i> | %       |
|----------------------------|----------|---------|
| Age                        |          |         |
| <30                        | 16       | 25.80   |
| 31-40                      | 9        | 14.50   |
| >40                        | 21       | 33.90   |
| Did not report             | 16       | 25.80   |
| Total                      | 62       | 100.00% |
| Ethnicity origin (or race) |          |         |
| White                      | 44       | 71.00   |
| Black or African American  | 2        | 3.20    |
| Hispanic or Latino         | 0        | 0.00    |
| Native American            | 0        | 0.00    |
| Asian/Pacific Islander     | 0        | 0.00    |
| Other                      | 0        | 0.00    |
| Did not report             | 16       | 25.80   |
| Total                      | 62       | 100.00% |
| Gender                     |          |         |
| Male                       | 35       | 56.50   |
| Female                     | 11       | 17.70   |
| Other                      | 0        | 0.00    |
| Prefer not to say          | 16       | 25.80   |
| Transgender                | 0        | 0       |
| Total                      | 62       | 100.00% |
| Number of years teaching   |          |         |
| 1                          | 7        | 11.30   |
| 2-5                        | 8        | 12.90   |
| 6-10                       | 12       | 19.40   |
| 11-20                      | 10       | 16.10   |
| 21-30                      | 6        | 9.70    |
| >30                        | 2        | 3.20    |
| Total                      | 62       | 100.00% |

**Objective Two: Articulate How COVID-19 Impacted Personal Teaching Dispositions**  
***Extent of Individual Motivation***

Respondents indicated (Table 3) being positively motivated (*1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree*) to address their personal well-being ( $M = 1.67, SD = .81$ ) compared to reflecting on their professional growth ( $M = 2.19, SD = 1.02$ ). When presented with statements regarding purchase of equipment ( $M = 2.77, SD = 1.50$ ), exploring retirement ( $M = 3.11, SD = 1.54$ ), and motivation to teach remote or distance education ( $M = 3.15, SD = 1.35$ ) respondents reported increased levels of disagreement. Additionally, motivation towards FFA

activities such as fundraisers ( $M = 3.50$ ,  $SD = 1.34$ ), and virtual FFA chapter banquets ( $M = 3.62$ ,  $SD = 1.30$ ) were also diminished. These findings demonstrate a clear separation between increased motivation towards personal well-being and professional responsibilities, creativity, and inspiration.

**Table 3***Extent of Individual Motivation during Distance/Remote Teaching During COVID-19*

| Extent of Individual Motivation                                       | <i>n</i> | <i>M</i> | <i>SD</i> |
|---|----------|----------|-----------|
| Been motivated to address my personal well-being.                     | 56       | 1.67     | 0.81      |
| Frequently reflected on my professional growth.                       | 56       | 2.19     | 1.02      |
| Been able to purchase equipment for my agriculture education program. | 56       | 2.77     | 1.50      |
| Been motivated to explore retirement options.                         | 56       | 3.11     | 1.54      |
| Generally, been motivated to teach remote or distance education.      | 56       | 3.15     | 1.35      |
| Been motivated to conduct FFA fundraisers.                            | 56       | 3.50     | 1.34      |
| Been motivated to organize a virtual FFA chapter banquet.             | 56       | 3.62     | 1.30      |

Note.  $n = 56$  due to item nonresponse. 1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

### Experiential Motivation

Respondents were provided a measurement interval scale (1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree) and reported slight agreement (Table 4) when asked about opportunities to critically reflect on programmatic events ( $M = 2.16$ ,  $SD = .93$ ), instructional processes ( $M = 2.20$ ,  $SD = 1.03$ ), and their local FFA chapter ( $M = 2.20$ ,  $SD = .99$ ). These findings are closely associated with the respondent's motivation towards critical reflection as an SBAE teacher ( $M = 2.22$ ,  $SD = .96$ ), professional engagement within the profession ( $M = 2.28$ ,  $SD = 1.01$ ), and participating in virtual professional development ( $M = 2.56$ ,  $SD = 1.22$ ). Generally, respondents were less motivated to participate or reflect within the areas of professional growth or the perceptions of program or professional improvement. These findings are grounded by decreased motivation ( $M = 3.04$ ,  $SD = 1.25$ ) as a teacher during COVID-19.

**Table 4***Experiential Motivation during Distance/Remote Teaching During COVID-19*

| Experiential Motivation   | <i>n</i> | <i>M</i> | <i>SD</i> |
|---|----------|----------|-----------|
| Been able to critically reflect on past programmatic events.                              | 56       | 2.16     | 0.93      |
| Spent time reflecting about my instructional processes.                                   | 56       | 2.20     | 1.03      |
| Spent more time in critical reflection about my local FFA program.                        | 56       | 2.20     | 0.99      |
| Spent more time in critical reflection about my role as an effective agriculture teacher. | 56       | 2.22     | 0.96      |
| Been professionally engaged as a teacher of agriculture.                                  | 56       | 2.28     | 1.01      |
| Been motivated to participate in virtual professional development workshops.              | 56       | 2.56     | 1.22      |
| Been positively motivated as a teacher during COVID-19.                                   | 56       | 3.04     | 1.25      |

Note.  $n = 56$  due to item nonresponse. 1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

### Objective Three: Understand SBAE Teachers Professional Motivation During COVID-19.

#### Internal Professional Motivation

Respondents were provided eight statements to assess the levels of internal professional motivation as a SBAE teacher, FFA advisor, internal motivation for self-improvement, curricula

development, and internal affect (Table 5). Respondents reported a favorable degree of internal self-reflection in the reality of the pandemic ( $M = 1.85$ ,  $SD = 1.06$ ) and associated pedagogical challenges experienced transitioning to remote/distance education platforms. When presented with statements regarding personal growth ( $M = 2.11$ ,  $SD = .92$ ), and motivation to develop new pedagogical content ( $M = 2.15$ ,  $SD = 1.15$ ) data represented an increased variance compared to feelings of self-reflection in the profession.

These findings align closely with the uncertainties of programmatic and overall local FFA chapter improvement ( $M = 2.16$ ,  $SD = 1.07$ ). Reporting feelings of professional affect (the demeanor, emotions, and values typically present in educational environments) respondents indicated decreased ( $M = 2.45$ ,  $SD = 1.03$ ) feelings of professional motivation. Respondents indicated decreased professional motivation ( $M = 2.47$ ,  $SD = 1.25$ ) and satisfaction ( $M = 2.51$ ,  $SD = 1.22$ ) advising the FFA chapter and performance as an SBAE ( $M = 2.56$ ,  $SD = 1.07$ ) teacher.

**Table 5**

*Internal Professional Motivation during Distance/Remote Teaching During COVID-19*

| Internal Professional Motivation   | <i>n</i> | <i>M</i> | <i>SD</i> |
|--|----------|----------|-----------|
| Been motivated to self-reflect in the moment.  | 56       | 1.85     | 1.06      |
| Reflected positively on my personal growth.  | 56       | 2.11     | 0.92      |
| Been motivated to develop new agriculture content for my face to face courses.           | 56       | 2.15     | 1.15      |
| Been motivated about improving my local FFA program during distance or remote operation. | 56       | 2.16     | 1.07      |
| Observed that my professional affect has been upbeat.                                    | 56       | 2.45     | 1.03      |
| Been positively motivated as an FFA advisor.   | 56       | 2.47     | 1.25      |
| Been satisfied with my role as a local FFA Advisor.                                      | 56       | 2.51     | 1.22      |
| Been satisfied with my performance as an agriculture education teacher.                  | 56       | 2.56     | 1.07      |

*Note.*  $n = 56$  due to item nonresponse.  $1 = \text{strongly agree}$ ,  $2 = \text{agree}$ ,  $3 = \text{neither agree nor disagree}$ ,  $4 = \text{disagree}$ ,  $5 = \text{strongly disagree}$

**External Professional Motivation**

Evaluating SBAE teachers' perceptions of external motivating factors related to professional motivation indicated a wide range of agreement. These six statements were designed to measure how respondents reacted to external professional factors associated with SBAE and the FFA chapter. Generally, (Table 6) teachers indicated positive feelings of their skills as an FFA advisor ( $M = 1.92$ ,  $SD = .92$ ) when using external factors to solve challenges ( $M = 1.94$ ,  $SD = .78$ ) to maintain external relationships with their peers. These findings suggest SBAE teachers and their role as FFA advisors maintained professional peer relationships to address challenges associated with the COVID-19 pandemic.

Respondents indicated agreement when responding to the statement which addressed student communication ( $M = 2.00$ ,  $SD = 1.09$ ), maintaining interpersonal relationships with peers ( $M = 2.21$ ,  $SD = 1.12$ ), students ( $M = 2.21$ ,  $SD = 1.15$ ), and communicating with peers ( $M = 2.23$ ,  $SD = 1.12$ ). The clustering of these means suggest only slight differences existed with professional contacts and maintaining relationships.

**Table 6***External Professional Motivation during Distance/Remote Teaching During COVID-19*

| External Professional Motivation  | <i>n</i> | <i>M</i> | <i>SD</i> |
|---|----------|----------|-----------|
| Believed in my skills as an FFA advisor.  | 56       | 1.92     | 0.92      |
| Reflected outside of agriculture education to solve challenges.                                     | 56       | 1.94     | 0.78      |
| Been motivated to communicate with my students .  | 56       | 2.00     | 1.09      |
| Been motivated to maintain interpersonal relationships with professional peers during the pandemic. | 56       | 2.21     | 1.12      |
| Been motivated to maintain interpersonal relationships with my students during the pandemic         | 56       | 2.21     | 1.15      |
| Been motivated to communicate with my peers.  | 56       | 2.23     | 1.12      |

Note. *n* = 56 due to item nonresponse. 1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

**Professional Self-Awareness**

Respondents indicated that they were motivated to return (Table 7) to the physical classroom ( $M = 1.38$ ,  $SD = .56$ ) to make positive changes to their SBAE program ( $M = 1.63$ ,  $SD = .89$ ) and FFA chapter ( $M = 1.63$ ,  $SD = .82$ ). Respondents reported that their professional reflection and motivation to program challenges ( $M = 1.84$ ,  $SD = .89$ ) were generally positive. As expected within the confines of the rapid transition to remote/distance instruction respondents were less inspired ( $M = 2.38$ ,  $SD = 1.17$ ) to perform their best as teachers and were generally disenchanted with daily distance/remote instruction ( $M = 2.54$ ,  $SD = 1.22$ ).

**Table 7***Professional Self-Awareness during Distance/Remote Teaching During COVID-19*

| Professional Self-Awareness                                       | <i>n</i> | <i>M</i> | <i>SD</i> |
|---|----------|----------|-----------|
| Been motivated about returning to the physical classroom.         | 56       | 1.38     | 0.56      |
| Planned positive changes to my Ag Ed program when school resumes. | 56       | 1.63     | 0.89      |
| Planned positive changes to my FFA chapter when school resumes.   | 56       | 1.63     | 0.82      |
| Been motivated to look at program challenges more deeply.         | 56       | 1.84     | 0.89      |
| Felt inspired to do my best as a teacher.                         | 56       | 2.38     | 1.17      |
| Looked forward to each day of teaching.                           | 56       | 2.54     | 1.22      |

Note. *n* = 56 due to item nonresponse. 1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

**Conclusions**

The purpose of this study was to investigate the degrees of personal and professional motivation experienced by SBAE teachers during the COVID-19 global pandemic. Three research objectives guided this investigation to more clearly understand teachers' perceptions of personal and professional motivation: (1) identify the characteristics of Alabama SBAE teachers during the pandemic, (2) articulate how COVID-19 affected SBAE teachers' personal dispositions toward teaching agriscience education, and (3) understand SBAE teachers' professional motivation during COVID-19.

Respondents indicated positive motivation in addressing their professional duties as a classroom teacher even as they lack the traditional classroom or lab. Teachers were motivated to make positive changes in their program in regards to FFA and SAE but are less than positive about their

ability to make those changes in the online learning modality. This is consistent with existing understandings of online learning and the embrace of novel experiences.

This is heartening based on Weiner and Kukla (1970) indication that attempts at tasks are closely related in a positive correlator way. As teachers feel positive about their motivations to make positive changes in their programs after experiencing a massive paradigm shift such as was caused by the reactions to the COVID-19 pandemic.

Teachers reported they had the strongest positive perceptions surrounding their Professional Self-Awareness. Numerous studies have been conducted and recently published which indicated teachers, specifically SBAE teachers, have less than ideal personal boundaries Clemons, et al. (2019), work-life balance (Solomonson & Retallick, 2018), and efforts to rationalize imbalances between personal happiness and professional success (Sorensen et al., 2017). In the context of this study, professional self-awareness refers to the respondent's willingness to look inward regarding their professional affect as a result of the rapid transition to distance/remote instruction. Research respondents were asked to indicate their professional levels of motivation as a middle/secondary school agriscience teacher using the COVID-19 pandemic as a frame of reflection.

The transition caused by COVID-19 resulted in teachers feeling the most positive in the same realm they have traditionally felt the least control over (Johnson and Birkeland, 2003). An implication exists that due to the high focus that media and social media has had on personal well-being, the open conversations associated with mental health and the forced shift from an absent home (Sorensen & McKim, 2014) to the work from home or work-within-home model in the spring of 2020. As teachers experienced more time in their homes attending to families and themselves, they perhaps feel obligated to make positive changes they otherwise were ignoring by increasing time away from home and focusing on others.

The only results that do not fall in the strictly positive side of the results curve are related to teachers' reflections about their ability to do the day-to-day tasks of teaching and advising an FFA chapter via distance. Roberts and Dyer (2004) supported teachers' reflection related to tasks as SBAE is often seen as more demanding than other educational disciplines. Those activities (instruction, advising, management of the program) have largely not changed. Teachers are still expected to interact with students and engage with their community through online platforms.

The question these data do not address, and future studies will surely be focused on, will be the question of how much change will ultimately occur as a result, or because of the COVID-19 pandemic shifts to online learning. Theories could be used to assert implications of these data but the truth of desire to change and the reality of change are often different things as suggested by Weiner (1972) and Wigfield and Eccles (2000). When positive experience and stimuli exist, individuals are more likely to implement positive changes. Research has indicated that the length of traumatic experiences and the novelty of those experiences does affect the overall affect (Alder et al., 2005). Those results could further address unknown findings about how much of a stressor duration can teachers withstand and maintain their positive belief of change.

### **Implications and Recommendations**

Evaluating personal and professional improvements (work-life balance) resulting from COVID-19 should not be overlooked in SBAE. Respondents in this study indicated a higher awareness of self-care and general concern for their personal well-being. Respondents provided insights into their awareness of personal growth and means in which they addressed these improvements. The implications of this finding suggest that when SBAE teachers are not experiencing the internal and

external pressures of the profession they focus on personal motivation and create a more balanced lifestyle.

We should continue to investigate and encourage work-life balance in SBAE to better reflect the positive findings of increased family time, stepping back from the profession, and living in the moment. Future studies should investigate personal and professional motivation post COVID-19. Only then will the appearance of personal and professional balance be ascertained. Teachers should be encouraged to maintain the positive shift towards focusing on home life and mental health addressed during COVID-19. We live in the most opportune time to learn from our past to better prepare our future.

Teaching and learning in online environments, changes in pedagogy, and classifications of personal and professional motivation all reflect a storied narrative within our field. At the end of the 20th century, SBAE scholars addressed the scope and breadth of a new instructional delivery platform ubiquitously referred to as the internet. This revolutionary instructional medium illuminated new opportunities for teachers and students to experience distance/remote instruction in all content areas regardless of physical location. Research in distance/remote education focused on the instructor, content design, and the availability of robust networks and fledgling infrastructure to adequately support the new era of digital instruction.

A potential implication of this research may highlight the absence of preparing pre-service teachers with pedagogical skills for implementing and operating in a digital environment. This statement can only now be reflected in hindsight as a missed opportunity. Our profession could not have predicted the profound changes in professional and personal lifestyles experienced during 2020. As is often lamented, and seldom implemented we should take this opportunity to learn from our past and enact instruction to address the preparation of pre-service teachers to efficiently operate within online learning environments. Agriculture teacher preparation programs should review the established research in our field and implement best practices for ensuring our pre-service students are prepared for asynchronous instruction as well as we prepare them for synchronous teaching.

Veteran faculty at all levels of post-secondary instruction prepared the groundwork for our rapid transition to online learning. We should re-engage with these scholars as mentoring experts in online instructional delivery platforms. If agriculture education scholars were able to predict a small percentage of the importance of online learning, imagine how their insights could serve us in the next 20 years. As agriculture education faculty continue to improve their proficiency in pedagogical development, we must address practicing middle/secondary school agriscience teachers' continued growth in online learning environments. Outreach programming should be established to aid in the development of current teachers' pedagogical capabilities with regard to online instruction. It is recommended that our field re-engages with those members of the faculty that were once at the cutting edge of what was called "distance education".

### References

- Adler, A. B., Huffman, A. H., Bliese, P. D., & Castro, C. A. (2005). The impact of deployment length and experience on the well being of male and female soldiers. *Journal of Occupational Health Psychology, 10*(2), 121-137. <https://doi.org/10.1037/1076-8998.10.2.121>
- Atkinson, J. W. (1957). Motivational determinates of risk-taking behavior. *Psychological Review, 64*, 359-372. <http://dx.doi.org/10.1037/h0043445>

- Born, K. A., & Miller, G. (1999). Faculty perceptions of web-based distance education in agriculture. *Journal of Agricultural Education, 40*(3), 30-39. <https://doi.org/10.5032/jae.1999.03030>
- Centers for Disease Control and Prevention. (n.d.). <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>
- Chapman, S. (2020). COVID-19: A brief history and treatments in development. *Prescriber, 31*(5), 23-28. <https://doi.org/10.1002/psb.1843>
- Clemons, C. A., & Lindner, J. R. (2019). Teacher longevity and career satisfaction in the secondary agricultural education classroom. *Journal of Agricultural Education, 60*(1), 186-201. [doi://10.5032/jae/2019.01186](https://doi.org/10.5032/jae/2019.01186)
- Cochran, W. G. (1977). *Sampling techniques* (3<sup>rd</sup> ed.). Harcourt.
- Connor, N. W., Rubenstein, E. D., DiBenedetto, C. A., Stripling, C. T., Roberts, T. G., & Stedman, N. L. P. (2017). Examining student perceptions of flipping an agricultural teaching methods course. *Journal of Agricultural Education, 55*(5), 65-77. <https://doi.org/10.5032/jae.2014.05065>
- Coronavirus and School Closures (2020, March 6). Education week. <https://www.edweek.org/ew/section/multimedia/map-coronavirus-and-school-closures.html>
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed mode surveys: The tailored design method* (4th ed.). Wiley.
- Dooley, K. E., Lindner, J. R., & Richards, L. J. (2003). A comparison of distance education competencies delivered synchronously and asynchronously. *Journal of Agricultural Education, 44*(1), 84-94. <https://doi.org/10.5032/jae.2003.01084>
- d'Orville, H. (2020). COVID-19 causes unprecedented educational disruption: Is there a road towards a new normal? *Prospects, 1*. <https://doi.org/10.1007/s11125-020-09475-0>
- Eccles J. S., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J. L., & Midgley, C. (1983). Expectancies, values, and academic behaviors. In J. T. Spence (Ed.), *Achievement and achievement motivation*. 75-146. W. H. Freeman.
- Eccles, J. S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology, 5*(3), 1017-1095. Wiley.
- Edwards, C. M., Lucas, B., Briers, G., & Rohs, F. R. (2004). Educational interests of secondary agricultural education teachers in Georgia: Implications for the delivery of education programming at a distance. *Journal of Agricultural Education, 45*(3), 75-85. <https://doi.org/10.5032/jae.2004.03075>
- Frost, K. J. & Rayfield, J. (2020). Decision to enter the classroom as an agriculture teacher: An exploratory qualitative investigation. *Journal of Agricultural Education, 61*(1), 247-261. <https://doi.org/10.5032/jae.2020.01247>
- Galinsky E., Aumann K., & Bond J.T. (2013). Times are changing: Gender and generation at work and at home in the USA. In: Poelmans, Greenhaus, Maestro (Eds.), *Expanding the Boundaries of Work-Family Research*. Palgrave Macmillan. [https://doi.org/10.1057/9781137006004\\_13](https://doi.org/10.1057/9781137006004_13)

- George, D., & Mallory, P. (2003). *SPSS for windows step by step: A simple guide and reference. 11.0 update* (4<sup>th</sup> ed.). Allyn & Bacon.
- Murphy, T. H., & Terry, R. H. Jr. (1998). Faculty needs associated with agricultural distance education. *Journal of Agricultural Education*, 39(1), 17-27.  
<https://doi.org/10.5032/jae.1998.01017>
- Murray, K., Flowers, J., Croom, B., & Wilson, B. (2011). The agricultural teacher's struggle for balance between career and family. *Journal of Agricultural Education*, 52(2), 107-117.  
<https://doi.org/10.5032/jae.1999.01038>
- Lindner, J. R., Clemons, C. A., Thoron, A., & Lindner, N. (2020). Remote instruction and distance education: A response to COVID-19. *Advancements in Agricultural Development*, 1(2), 53-64. <https://doi.org/10.37433/aad.v1i2.39>
- Lindner, J. R., Murphy, T. H., & Briers, G. E. (2001). Handling nonresponse in social science research. *Journal of Agricultural Education*, 42(4), 43-53. <https://doi.org/10.5032/jae.2001.04043>
- Miller, G., & Miller, W. (2000). A telecommunications network for distance learning; if it's built, will agriculture teacher use it? *Journal of Agricultural Education*, 41(1), 79-87.  
<https://doi.org/10.5032/jae.2000.01079>
- Myers, B. E., Dyer, J. E., & Washburn, S. G. (2005). Problems facing beginning agriculture teachers. *Journal of Agricultural Education*, 46(3), 47-55. [doi:10.5032/jae.2005.03047](https://doi.org/10.5032/jae.2005.03047)
- Pintrich, P. R., & Schunk, D. H. (1996). *Motivation in Education: Theory, research, and applications*. Merrill-Prentice Hal.
- Purdy, L. N., & Wright, S. J. (1992). Teaching in distance education: A faculty perspective. *The American Journal of Distance Education*, 6(3), 2-4.  
<https://doi.org/10.1080/08923649209526795>
- Roberts, T. G., & Dyer, J. E. (2004). Characteristics of effective agriculture teachers. *Journal of Agricultural Education*, 45(4), 82-95. <https://doi.org/10.5032/jae.2004.04082>
- Ruth, T. K., Rumble, J. N., Lundy, L. K., Galindo, S., Carter, H. S., & Folta, K. M. (2020). Motivational influence on land-grant faculty engagement in science communication. *Journal of Agricultural Education*, 61(2), 77-92. <https://doi.org/10.5032/jae.2020.02077>
- Santos, J. R. A. (1999). Cronbach's alpha: A tool for assessing the reliability of scales. *Journal of Extension*, 37(2), 1-5.
- Sorensen, T. J., & McKim, A. J. (2014). Perceived work-life balance ability, job satisfaction, and professional commitment among agriculture teachers. *Journal of Agricultural Education*, 55(4), 116-132. <https://doi.org/10.5032/jae.2017.02214>
- Sorensen, T. J., McKim, A. J., & Velez, J. J. (2017). A national study of work characteristics and work-family conflict among secondary agricultural educators. *Journal of Agricultural Education*. 58(2), 214-231. <https://doi.org/10.5032/jae.2017.02214>

- Stripling, C. T., & Ricketts, J. C. (2016). Sufficient scientific and professional workforce that addresses the challenges of the 21<sup>st</sup> century. In T. G. Roberts, A. Harder, & M. T. Brashears (Eds.), (2016). *American Association for Agricultural Education national research agenda: 2016-2020*, 40-49. Gainesville, FL: Department of Agricultural Education and Communication.
- Tate, E. (2020, May 5). What teachers wish the public knew about their jobs during COVID-19. EdSurge. <https://www.edsurge.com/news/2020-05-05-what-teachers-wish-the-public-knew-about-their-jobs-during-covid-19>
- Van Lancker, W., & Parolin, Z. (2020). COVID-19, school closures, and child poverty: A social crisis in the making. *The Lancet*, 5(5), 243-244. [https://doi.org/10.1016/S2458-2667\(20\)30084-0](https://doi.org/10.1016/S2458-2667(20)30084-0)
- Weiner, B. (1972). Attribution theory, achievement motivation, and the educational process. *Review of Educational Research*, 42(2), 203-215. <https://www.jstor.org/stable/1170017>
- Weiner, B., & Kukla, A. (1970). An attributional analysis of achievement motivation. *Journal of Personality and Social Psychology*, 15(1), 1-20. <https://doi.org/10.1037/h0029211>
- Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, 25(1), 68-81. <https://doi.org/10.1006/ceps.1999.1015>