Millennial and Non-millennial Agriculture Teachers’ Current and Ideal Emphasis on the Three Components of the Agricultural Education Program

Catherine W. Shoulders1 & Hannah Toland2

Abstract

Classroom and laboratory instruction, FFA, and SAE have long represented the complete agricultural education program via the three-component model. While the model depicts three circles of equal size to represent these components, the focus and level of emphasis of each component within the agriculture program is the decision of the agriculture teacher. The purpose of this study was to describe [State] agriculture teachers’ behavioral intentions and actual behaviors regarding emphasis of each component in the profession’s three-component model. Results of this descriptive study indicated the average program emphasized instruction most, FFA next, and SAE least. However, the majority of respondents indicated a disparity between the emphasis of each component in their current program and their ideal program. Most respondents indicated their ideal program would emphasize instruction, FFA, and SAE equally. Differences between Millennial and Non-millennial teachers indicate the younger generation spent more time on FFA than the older generations, while the older generation wanted more personal time than their younger peers. We recommend further research be conducted to determine whether these results are found among other populations, as well as to uncover the reasons behind these results.

Keywords: three component model; agriculture teacher; millennial generation

Introduction and Conceptual Framework

One of the most universally recognized foundations of school based agricultural education is its three-component model. Comprised of equal parts classroom and laboratory instruction, leadership development through the FFA, and hands-on application through supervised agricultural experiences (SAE), the three-component model displays the interrelationships and uniqueness of each component that makes up a comprehensive school based agricultural education program (see Figure 1) (Croom, 2008; Hughes & Barrick, 1993; Moore, 2006; Phipps, Osborne, Dyer, & Ball, 2008).

The classroom and laboratory instruction component focuses on activities that enable students to gain knowledge regarding agricultural concepts and problems (Phipps et al., 2008; Croom, 2008). Talbert, Vaughn, Croom, and Lee (2007) recognized this component as the “foundation for everything else that occurs in the agricultural education program” (p. 107). Terry and Briers (2010) identified classroom instruction as the foundational role of the agriculture teacher. Much of an agriculture teachers’ reputation among students, parents, and administrators stems from his or her qualities as an instructor (Larsen, 1992; Luft & Thompson, 1995; Miller, Kahler, & Rheault, 1989; Roberts & Dyer, 2004).

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Figure 1. The three-component model of agricultural education (National FFA Organization, 2015).

Comprising the next of the three components is SAE. SAE programs enable students to apply knowledge learned in the classroom to real-life situations through work-based learning experiences (Phipps et al., 2008; Talbert et al., 2007). Originating from the implementation of the home project by Rufus Stimson (Croom, 2008; Moore, 1988; Stimson, 1919), SAEs require students to maintain educational plans that are supervised by the agriculture teacher outside of the school day (Croom, 2008). Researchers have documented a decline in students’ and teachers’ development and maintenance of SAEs over the past 30 years (Barrick, Hughes, & Baker, 1991; Dyer & Osborne, 1995; Dyer & Williams, 1997; Retallick & Martin, 2008; Rubenstein & Thoron, 2014). Despite the decline in participation, research has consistently reported the benefits of SAEs on knowledge acquisition (Arrington & Cheek, 1990; Pals, 1988; Ramsey, 2009; Williams, 1979) and on teachers’ high value of SAEs (Lewis, Rayfield, & Moore, 2012; Robinson & Haynes, 2011).

The third component is comprised of FFA. The National FFA Organization offers membership to students in agricultural education classes in order to provide them with activities that focus on developing leadership, personal growth, and career success (Talbert et al., 2007; Phipps et al., 2008). With competitive award structures for both the individual student and the chapter, the FFA is an intracurricular organization that, as the three-component model suggests, motivates students to display their knowledge and skills developed in the classroom and through their SAEs. Student involvement in FFA activities has been linked to more enjoyable high school experiences (Rose, 2014), increased leadership skills (Wingenbach & Kahler, 1997), and increased life skills (Ahrens, Cox, Burris, & Dykes, 2015).

Teachers of agricultural education have been encouraged to adhere to the three-component model in their preservice and inservice programs by educators (Phipps et al., 2008), legislation (Smith-Hughes Act, 1917), and established tradition (Croom, 2008). While Phipps et al. (2008) stated teachers should adjust the emphasis on each of these three components as industry practices,
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Millennial and Non-millennial Agriculture Teachers’ Educational Priorities, and Student Needs: A Study of Work Hours and Program Emphasis

As educational priorities, and student needs evolve, the model is typically represented within teacher preparation programs by three circles of equal size (Croom, 2008; Lewis et al., 2012; Talbert et al., 2007; National FFA Organization, 2015), implying equal emphasis on each component in the model program. However, Torres, Ulmer, and Aschenbrener (2008) found teachers divvied their work hours unevenly between the three components; their study reported 69% of teachers’ work hours were devoted to classroom instruction, 23% were devoted to FFA, and 3% were devoted to SAE. These hours spent were not necessarily based on the typical 40-hour work week; experienced teachers spent an average of 44.6 hours devoted to work per week, while first-year teachers spent an average of 49.4 hours devoted to work per week. Torres et al. (2008) posited that extra work hours affect teachers’ working conditions, which could contribute to job dissatisfaction.

Whether the participants of Torres et al.’s (2008) study were consciously expanding and shrinking the focus on each of the three components based on their individual teaching contexts as Phipps et al. (2008) suggested or were doing so in an unsuccessful effort to maintain programs with equal emphasis between the three components is unknown. As we gather more information on teachers’ focus on the three components through studies such as that included within this manuscript, we can look to agricultural education programs within institutions of higher education to adapt curriculum and instruction as needed. These teacher certification programs bear the responsibility of preparing high quality agriculture teachers to lead successful agriculture programs within secondary school settings (Wardlow & Osborne, 2010). The National Research Agenda of the American Association of Agricultural Education (AAAE) recognized the development of “highly effective education programs...in all settings and at all levels” (Doerfert, 2011, p. 24) as an outcome of the profession. In 2001, the AAAE adopted the National Standards for Teacher Education in Agriculture; Standard 3 focused on the program’s ability to “…retain an adequate supply of quality students who demonstrate potential for professional success in the agricultural education community” (AAAE, 2001, p. 4). Preparing quality agriculture teachers requires equipping them with the problem solving and planning skills necessary to balance the program’s needs and priorities according to administrative, professional, and community expectations. These expectations are specific to geographical regions and evolve over time, suggesting teachers should be capable of adjusting program emphasis according to these factors (Phipps et al., 2008).

Preparing teachers to enter and succeed in the profession requires knowledge about their needs and values during their time as students within the teacher preparation program. Largely, today’s preservice teachers fall within the millennial generation. While no hard and fast rule regarding generation age ranges exists, Carlson (2008) identified Millennials as those individuals born after 1983 due to the increase in births starting in 1984, and before 2002 due to changes in American culture and political climate as a result of increased terrorism. The millennial generation, soon to be the largest generation within the teaching profession, is the first in four generations to omit “work ethic” from their list of characteristics they feel distinguishes them from others (Pew Research Center, 2010). Millennials are also less willing to tolerate unpleasant working conditions than previous generations, among which time allocation and flexibility are included (Center for Women and Business, 2013). The job of an agriculture teacher is often displayed as one that is physically, emotionally, and intellectually demanding, requiring more time and sacrifice than the typical career (Croom, 2003). These factors can contribute to teacher burnout, attrition, and ultimately, the decades-long teacher shortage found in agricultural education (Walker, Garton, & Kitchel, 2004).

Agriculture teachers operate programs with a relatively high degree of autonomy compared to teachers of other academic subjects. The focus of a program’s instruction, SAE programs, and FFA events, as well as the degree to which each of these components is emphasized, is decided upon by the agriculture teacher (Talbert et al., 2007). The recognized disparity between teachers’
value of SAE programs and their implementation of SAE programs suggests teachers may not be equipped to navigate the complexities of shaping a program to align with their standards, potentially leading to job dissatisfaction. Numerous studies have focused on agriculture teachers’ roles related to job satisfaction (Cano & Miller, 1992; Grady & Burnett, 1985; King, Rucker, & Duncan, 2013; Torres et al., 2008); however, there is a gap in the literature regarding different generations of teachers’ perceptions regarding ideal agriculture programs, as well as their abilities to shape their programs to meet those ideals.

Theoretical Framework

According to the theory of planned behavior, agriculture teachers enter and progress through the profession with behavioral intentions regarding leadership in the agriculture program (Ajzen, 1991). These intentions can only be acted upon if the person both perceives he or she can carry out the behavior and if his or her ability to carry out the behavior is not thwarted by external factors outside of his or her control. In addition, intentions are influenced by an individual’s attitude toward a behavior, which refers to “the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question” (Ajzen, 1991, p. 188), and subjective norms, which refers to the individual’s perception of the expectations of his or her social community.

The actions a teacher takes regarding the program’s focus and development stem from the teacher’s perceptions of his or her own abilities to lead the program in the intended manner, perceptions of the control he or she has over his or her program’s focus, perceptions of his or her peers’ expectations regarding the program, and his or her own attitudes regarding the program’s focus. Therefore, the perhaps unintended display of a model program with three equal components may alter a teacher’s perceptions of his or her peers’ expectations, as well as his or her own attitudes regarding the program’s focus.

Time allocation has long been a measured variable in educational research (Stallings, 1980). Researchers in agricultural education have traditionally used time allocation to indicate the roles of the agriculture teacher, using the three-component model as a standard (Goode & Stewart, 1981; Lockwood, 1976; Torres et al., 2008). However, the three-component model exists outside of the construct of time allocation, displaying instead the overall components of a program and how they relate to one another. Teachers and students allocate time differently among tasks and responsibilities; for example, teachers may dedicate more time to planning classroom instruction while students may spend more time practicing for competitive FFA events. Therefore, teacher or student time allocation may not accurately portray an entire program’s focus on classroom instruction, FFA, and SAE. Emphasis, defined in the Cambridge English Dictionary (2016) as “the particular importance or attention that is given to something,” is a construct that is more comprehensive than time allocation, as teacher efforts and student efforts (including time spent) combine to display a program’s emphasis.

Emphasis of each of the three components in an agricultural education program can be examined via mental models, which depict “an individual’s representation of a phenomenon” (Libarkin, Beilfuss, & Kurzdziel, 2003, p. 121). Mental model theory uses drawings to “summarize thinking patterns of learners” (Moseley, Desjean-Perrotta, & Utley, 2010, p. 191) and enable researchers to examine how individuals understand and make sense of the world (Coll & Treagust, 2003). Mental models are constructed based on prior experiences, observation, cultural influences, and instruction (Libarkin et al., 2003; Moseley et al., 2010), and “play a central and unifying role in representing objects, states of affairs, sequences of events, the way the world is, and the social and psychological actions of daily life” (Johnson-Laird, 1983, p. 397). Because individuals construct mental models rather than mental time allocations when considering the world, and

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because time allocation is not a defining factor of the three-component model of agricultural education, this study approached the examination of program emphasis using drawings as a means of assessing teachers’ perceptions of program emphasis.

**Purpose and Objectives**

The purpose of this study was to describe Arkansas agriculture teachers’ behavioral intentions and actual behaviors regarding emphasis of each component in the profession’s three-component model. In order to achieve this purpose, the following objectives were developed:

1. to describe Arkansas agriculture teachers’ perceptions of their emphasis on classroom and laboratory instruction, SAE, and FFA within their agriculture programs and their level of emphasis on their personal lives as compared to their emphasis on their programs;
2. to describe Arkansas agriculture teachers’ perceptions of their preferred emphasis on classroom and laboratory instruction, SAE, and FFA within their ideal agriculture programs and their preferred level of emphasis on their personal lives as compared to their emphasis on their programs;
3. to describe the difference between agriculture programs led by Arkansas agriculture teachers of the millennial generation and those of other generations; and
4. to describe the difference between the perceived ideal agriculture programs of Arkansas agriculture teachers of the millennial generation and those of other generations.

**Methods**

This descriptive study utilized a researcher-developed instrument to gather teachers’ perceptions regarding the emphasis they placed on classroom and laboratory instruction, FFA, and SAE in their current programs, as well as the emphasis they would place on each in their ideal programs. The population consisted of Arkansas agriculture teachers \((N = 248)\) (Foster, Lawver, & Smith, 2014); the sampling frame consisted of teachers attending the state FFA career development events, which are held over a two-day period at the University of Arkansas \((n = 75)\). While a more representative sampling frame, such as the state’s email directory, would have been desirable, the instrument required respondents to create illustrations deemed too complex for electronic correspondence methods. Therefore, we determined the face-to-face venue of the state FFA career development event competitions as the most appropriate setting to gain access to the greatest number of teachers. We recommend researchers collect data with this instrument via mailed surveys as funding allows in the future, and we recognize the limited sampling frame used herein as a limitation of this study. Responses were received from 32 teachers, leading to a response rate of 42.7%. Because the surveys were completed via face-to-face data collection methods during a two-day event, addressing nonrespondents was not possible. Therefore, we caution against generalizing these findings beyond this group of respondents.

This study utilized a researcher-developed instrument that first introduced an illustration of the three-component model. Using the three-component model as a reference, respondents were then asked to draw the model of their current agricultural education program, indicating the emphasis on each area through the size of the circles. Specification regarding the size of the circles was given for clarity; larger circles were to indicate greater emphasis while smaller circles were to indicate less emphasis. This method of requiring participants to construct freehand drawings is common in studies guided by mental model theory (Moseley et al., 2010; Robinson, Kelsey, & Terry, 2013). Respondents were told their models should include the three components of the
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traditional model, but could include additional components as the teacher saw fit. After these circles were drawn, teachers were asked to incorporate a circle of appropriate size to represent the emphasis they put on their personal lives. Each of these questions was repeated, asking teachers to illustrate the components of their ideal agricultural education program. For the ideal program illustration, the model could include or omit any circles to best represent the teacher’s ideal program. The survey included a demographic section that asked teachers about their age and amount of time teaching agricultural education. The instrument’s face and content validity was confirmed by a panel of three experts in agricultural education. Three cognitive interviews with University of Arkansas student teachers \((n = 2)\) and a former agriculture teacher \((n = 1)\) were conducted to evaluate respondents’ ability to perform the tasks in a manner that accurately reflected their intentions with regard to the emphasis of each program component. Each of the interviewees indicated he or she was able to accurately portray his or her intentions regarding differences in program emphasis through the circle-drawing tasks. Reliability in the form of stability over time was established via a pilot test using University of Arkansas graduate students who had previously gone through the student teaching experience and faculty members who had previous careers as agriculture teachers \((n = 6)\). Pilot test respondents were asked to respond to the items based on their experiences with their most recent high school teaching experience, and were asked to complete the survey two times, two weeks apart. Test-retest reliability was calculated using Pearson’s correlation \((Huck, 2008)\) and was found to be .88.

Data were analyzed using descriptive statistics. Teachers’ emphasis on each program component was calculated using their illustrations. First, each circle’s diameter was measured. Because teachers were freehand drawing the circles, lack of symmetry was overcome by first measuring the diameter at the each circle’s widest point, then measuring the diameter of the circle at the point 90 degrees perpendicular to the widest point. These two diameters were averaged to determine each circle’s diameter, which was then used to calculate the circles’ areas. Total program area was calculated by adding the areas of the instruction, FFA, and SAE circles together, which was then used to determine the program’s percent emphasis on each component. While teachers were instructed to include any additional components they saw fit, no additional circles were drawn. The total program area was added to the personal life circle’s area to calculate total program and personal life, which was then used to determine the percentage of total life the teacher spent on his or her personal life and career responsibilities. Mean percentages of emphasis and standard deviations were calculated.

We recognized that requiring teachers to draw circles in freehand may lead to minor inaccuracies in intended circle size (for example, the diameters of two freely drawn circles may be slightly different although an individual intended to draw them in equal sizes). To overcome those slight inaccuracies, teachers’ emphasis on each component was utilized to depict program types. Programs with one component making up over 50% of the program and the two remaining components being above 20% and within 10% of one another were labeled as “heavy” in the larger area. Programs with one area comprising under 20% and the remaining areas being within 10% of one another were labeled as “light” in the smaller area. Those with two areas under 20% were labeled as “dominating” in the largest area, while those with three areas each ranging between 20% and 40% were labeled as “model” programs. Programs were able to be labeled as both “heavy” in one component and “light” in another if they had one area over 50% and another less than 20%. Figure 2 displays an example of SAE Light and Instruction Dominating programs. This study assumes respondents had the psychomotor skills necessary to draw circles of intentionally similar or dissimilar sizes.
Findings

Teachers’ Current Emphasis on Instruction, SAE, FFA, and Personal Lives

On average, classroom and laboratory instruction made up 49.0% of respondents’ programs ($SD = 20$), while FFA made up 36.4% ($SD = 17$) and SAE made up 13.9% of respondents’ programs ($SD = 10$). The most common program types were SAE Light and Instruction Heavy/SAE Light ($n = 8$) (see Table 1). Six teachers reported leading model programs. Light emphasis on SAE was most common, being a characteristic of 56% of the programs ($n = 18$).

Table 1

Current Program Types Reported by Respondents

<table>
<thead>
<tr>
<th>Type of Program</th>
<th>$f$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction Heavy, SAE Light</td>
<td>8</td>
</tr>
<tr>
<td>SAE Light</td>
<td>8</td>
</tr>
<tr>
<td>Model</td>
<td>6</td>
</tr>
<tr>
<td>Instruction Dominating</td>
<td>4</td>
</tr>
<tr>
<td>FFA Heavy, SAE Light</td>
<td>2</td>
</tr>
<tr>
<td>FFA Heavy</td>
<td>2</td>
</tr>
<tr>
<td>Instruction Heavy</td>
<td>1</td>
</tr>
<tr>
<td>FFA Light</td>
<td>1</td>
</tr>
</tbody>
</table>
Respondents reported devoting 18.6% of their time to their personal lives \((SD = 19)\), leaving the remaining 81.4% of their efforts devoted to their agriculture programs. Emphasis on one’s personal life ranged from 1.6% to 82.3%.

**Teachers’ Preferred Level of Emphasis on Instruction, FFA, SAE, and Personal Lives**

Ideal program averages fell within the range of the model program; respondents indicated that the ideal program would consist of 40.6% classroom and laboratory instruction \((SD = 14)\), 35.8% FFA \((SD = 10)\), and 23.6% SAE \((SD = 13)\). With regard to total program makeup, a model program was desired by the most respondents \((n = 16; 50.0\%)\). A program with limited emphasis on SAE was desired by 37.5% of respondents \((n = 12)\) (see Table 2). Over half \((65.6\%, n = 21)\) of respondents indicated a difference between the type of program they currently lead and the type of program they perceived as ideal.

Table 2

*Ideal Program Types Reported by Respondents*

<table>
<thead>
<tr>
<th>Type of Program</th>
<th>(f)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>16</td>
</tr>
<tr>
<td>SAE Light</td>
<td>8</td>
</tr>
<tr>
<td>Instruction Heavy, SAE Light</td>
<td>3</td>
</tr>
<tr>
<td>Instruction Dominating</td>
<td>1</td>
</tr>
<tr>
<td>FFA Heavy, SAE Light</td>
<td>1</td>
</tr>
<tr>
<td>SAE Heavy</td>
<td>1</td>
</tr>
<tr>
<td>Instruction Heavy, FFA Light</td>
<td>1</td>
</tr>
<tr>
<td>Instruction Light</td>
<td>1</td>
</tr>
</tbody>
</table>

Respondents reported an ideal program would allow for 27.2% of one’s time to be devoted to one’s personal life \((SD = 23)\), with the remaining 72.8% of efforts being devoted to the agriculture program. Perceived ideal emphasis on one’s personal life ranged from 1.4% to 99.0%.

**Differences in Agricultural Education Programs between Teachers within and outside the Millennial Generation**

Teachers outside of the millennial generation, on average, emphasized classroom and laboratory instruction the most \((52.1\%, SD = 24)\), then FFA \((33.4\%, SD = 17)\), and SAE the least \((14.4\%, SD = 10)\) (see Figure 3). They devoted an average of 21.2% of their time \((SD = 20)\) on their personal lives, leaving the remaining 78.8% for program-related efforts. Teachers of the millennial generation, like their older peers, emphasized classroom and laboratory instruction the most \((46.7\%, SD = 15)\), then FFA \((38.7\%, SD = 16)\), and SAE least \((13.4\%, SD = 9)\) As Figure 3 displays, they focused more of their time on FFA activities and less of their time on classroom and
laboratory instruction than their older peers. Millennial respondents, on average, devoted less time than their older peers (17.0%, $SD = 18$) to personal activities, focusing instead on program-related efforts 83% of the time.

![Figure 3. Percent of millennials’ and non-millennials’ time devoted to program components and personal life.](image)

With regard to program type, few differences were found between Millennials and Non-millennials (see Table 3). Teachers in the millennial generation lead programs that were heavy in instruction and light in SAE more frequently than their older peers.

Table 3

Current Program Types of Millennial and Non-millennial Respondents

<table>
<thead>
<tr>
<th>Type of Program</th>
<th>Millennials $f$</th>
<th>Non-millennials $f$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction Heavy, SAE Light</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>SAE Light</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Model</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Instruction Dominating</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>FFA Heavy</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>FFA Heavy, SAE Light</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>FFA Light</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Instruction Heavy</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Differences in Ideal Agricultural Education Programs of Teachers within and outside of the Millennial Generation

While teachers outside of the millennial generation indicated a desire for more personal time than those within the millennial generation, disaggregating by generation did not divulge any differences in emphasis on any program component between the two groups (see Figure 4).

![Figure 4](image-url)

*Figure 4.* Millennials’ and non-millennials’ ideal percent of time devoted to program components and personal life.

Both groups of teachers held similar interests in leading either model or SAE Light programs (see Table 4). Seventy-one percent of non-millennial respondents desired to lead a program different in structure to the one they currently lead, while 61.1% of millennial respondents had similar desires.

Table 4

*Millennials’ and Non-millennials Ideal Program Types*

<table>
<thead>
<tr>
<th>Type of Program</th>
<th>Millennials</th>
<th>Non-millennials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>SAE Light</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Model</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Instruction Heavy, SAE Light</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>FFA Heavy, SAE Light</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Instruction Dominating</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Instruction Heavy, FFA Light</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Instruction Light</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>SAE Heavy</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Conclusions, Implications & Recommendations

The average program structure reported by respondents, regardless of generation, adhered to the SAE Light model, with classroom and laboratory instruction being emphasized to the greatest degree and SAE being emphasized least. These findings suggest teachers place high value on their roles as educators, as is recommended by Terry & Briers (2010) and Talbert et al. (2007). Lesser emphasis on SAE was a characteristic of over half of respondents’ programs. Experts in agricultural education have been focusing on improvement of the SAE component for several decades, recognizing its ability to be carried out as the model intends as a persisting challenge across the nation (Croom, 2008; Dyer & Osborne, 1995; Dyer & Williams, 1997; Rubenstein & Thoron, 2014).

Findings indicated a majority of respondents did not lead programs aligning with their ideal programs, reducing the likelihood that teachers lead SAE Light programs due to a lack of perceived value in SAE. Other studies have reported the value teachers hold in SAE programs (Lewis et al., 2012), further supporting the notion that teachers want to emphasize SAEs, but have not been successful in doing so. This disparity between current and ideal program was found both within and outside of the millennial generation. Current program emphasis can be shaped by industry practices, educational priorities, student needs, and community interests (Phipps et al., 2008); the inability of respondents to emphasize each component according to their ideals may be the result of these external factors. Regardless of the reasons for the disparity, research should be conducted to determine whether this lack of alignment between current program and ideal program structure influences teachers’ levels of job satisfaction, as satisfaction plays a role in teacher retention (Torres et al., 2008). As teachers move positions from one school to another, researchers should also examine how their ideal program structure aligns with those of their previous and new places of employment.

The majority of respondents identified the standard three-component model, with near equal emphasis on each component, as the ideal program type, suggesting their knowledge of the three components of school-based agricultural education was acquired via a learning experience that espoused this model as the standard. This implication is supported through the prevalence of the standard three-component model in introductory agricultural education texts (Phipps et al., 2008, Talbert et al., 2007) and undergraduate courses. These findings suggest that there may be a conflict between the traditional standards displayed in the three-component model and teachers’ abilities to implement those standards. Phipps et al. (2008) stated emphasis within each component shifts over time; however, the model’s illustration of three circles of equal size may lead instructors and students to perceive a program with equal emphasis on all three components as ideal. We recommend further research, likely using qualitative methods, be conducted to better understand the reasons that cause teachers to lead programs that emphasize the three components of agricultural education to different levels than they would find ideal, as well as why they perceive a model with equal emphasis on each component as ideal. Additionally, should replication of this study find these results to be similar to those of other populations of agriculture teachers, teacher educators should reevaluate the utility of the traditional three-component model to discern whether the model’s three identical circles accurately portray the profession’s intended program standard.

Teachers outside of the millennial generation put less emphasis on FFA than those within the millennial generation. This finding could imply that more experienced teachers need less preparation time for FFA than their less experienced peers; studies have displayed the differences in issues faced by new and more experienced teachers (Boone & Boone, 2007). Alternately, they could value FFA to a lesser degree and instruction to a greater degree than younger teachers. While FFA involvement has been associated with various student benefits (Ahrens et al., 2015; Rose,
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2014; Wingenbach & Kahler, 1997), the prominence of classroom and laboratory instruction as the foundation of the agricultural education program (Talbert et al., 2007) suggests all teachers should emphasize classroom and laboratory instruction at least as much as the other two components. We recommend future research focus on the value different generations of teachers place on each component of the agricultural education model. As the millennial generation begins to hold the majority of teaching positions in the upcoming years, an examination of how their values regarding instruction, FFA, and SAE compare to that of their predecessors will assist the profession in guiding the vision and strategic plan for agricultural education.

Teachers indicated a desire to spend more time on their personal lives than they do currently. We could argue that human nature leads individuals to note a preference for any aspect that enhances one’s life; numerous studies have found agriculture teachers to indicate a need for more funding, support, and facilities, regardless of their current access to these items (Myers, Dyer, & Washburn, 2005). However, these findings could suggest a need for the profession to explore avenues to reduce teachers’ work responsibilities, as recruitment of agriculture teachers has been an area of focus within the profession (Walker et al., 2004). Identification of the career aspects undergraduates find unappealing and working to increase the attractiveness of the career field may assist in teacher recruitment, especially among Millennials (Center for Women and Business, 2013).

Millennial generation teachers desired to have more personal time than they do currently, but to a less degree than their older peers. These findings contradict the notion that employees of the millennial generation are less focused on work ethic and more interested in work flexibility than employees of the previous generations (Center for Women and Business, 2013). Perhaps beginning teachers enter the profession with little personal responsibility compared to their older peers; as they age, growing responsibilities such as raising a family and caring for aging parents may increase a teacher’s desire for more personal time. Further research could explore the differences between teachers’ use of and desire for personal time, as well as how these differences are shaped by the combined yet distinct factors of generation and length of teaching experience.

We recognize these findings and conclusions are subject to the limitations in teachers’ different interpretations of each element of the three-component model. As displayed by Croom (2008), the model’s three components overlap one another, suggesting many activities within the realm of the agriculture teacher’s job description could be considered to be part of more than one component. Different interpretations of job responsibilities could have led teachers to consider them to be part of different components of the model, impacting their level of emphasis of each component. However, because teachers used their own interpretations of the components to indicate their current program structure and ideal program structure, the disparity between the two cannot be explained by differences in interpretations of components. While this study’s instrument did not require teachers to differentiate between each component’s responsibilities, research should be conducted to determine how teachers categorize different responsibilities in relation to the three-component model.

Finally, teacher educators should consider their framing of the three-component model when instructing preservice agriculture teachers, as findings displayed a difference between teachers’ current and ideal emphasis on each component within the model. If teachers are striving to place equal emphasis on each component, they are both acting against the recommendations of Phipps et al. (2008) and may not be able to successful do so, which could lead to job dissatisfaction. Guiding teachers in the process of program development based on industry practices, educational priorities, and student needs can assist them in developing programs that are cohesive with their ideals.
This study served as a starting point to describe teachers’ current and ideal programs with regard to emphasis on the three components of the standard agricultural education program. The instrument developed for this study enabled respondents to fully illustrate the differences in their level of emphasis on their program components as constructed in their own mental models without requiring mathematical estimations and time allocations, thereby reducing inaccuracies in data due to the effort required to respond in an appropriate and complete manner (Dillman, Smyth, & Christian, 2009). We recommend the instrument be utilized in the future with different sampling frames to further establish and document its utility. However, the current illustrative requirements of the survey limit data collection to paper-based administration; we recommend researchers attempt mail or face-to-face methods of survey administration. Feasibility tests using electronic illustration tools such as Microsoft Word’s shape illustrator are also recommended in an effort to expand the survey’s use to online and electronic methods of data collection, which can open access to more representative sampling frames. Replication of and expansion upon this study will assist the profession in educating preservice teachers in the art of aligning their current programs with their profession-supported ideals, thereby increasing job satisfaction and reducing the agriculture teacher shortage.

References


