Differences in Perceived and Ideal Levels of Program Components Among SBAE Teachers in Georgia, Oregon, and Texas

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Introduction/Purpose

There is a current shortage of school based agricultural education (SBAE) teachers and has been since 1965 (Smith, Lawver, & Foster, 2018; Kantrovich 2007). While retirements and lateral moves can account for some of the teaching loss, Smith et al. (2018) noted over 500 teachers left the profession prior to retirement. Ingersoll and Smith (2003) reported 42% of teachers left the profession because of burnout driven by conflict between work and family expectations. Work-life balance has been the subject of several studies where work-weeks in excess of 55 hours were the norm in several regions (Hainline, Ulmer, Ritz, Burris & Gibson, 2015; Crutchfield, Ritz & Burris, 2013; Murray, Flowers, Croom & Wilson, 2011). Similar studies indicated that family and work conflicts are linked to intentions to leave among SBAE teachers (Sorenson, McKim, & Velez, 2016). This abstract is part of a larger line of inquiry looking beyond the notions of work-life balance and into the balance of the SBAE programs themselves. The purpose of this study was to investigate the differences between perceived levels of programmatic components (Classroom Instruction, SAE, and FFA) and how SBAE teachers would ideally balance their program.

Theoretical Framework

The theories framing this study are Expectancy Value Theory (EVT) along with the Theory of Planned Behavior (TPB). Wigfield (1994) suggested one's decision-making process, through the lens of EVT, is predicated by a mix of an individual's expectations for success coupled with intrinsic and utility values (cost vs usefulness) held by the individual towards the task. Ajzen's TPB (2006) posited behavioral intention (decision making) is driven by personal attitudes toward the behavior, subjective attitudes (norms) shaped by "referent" individuals (Ajzen, 2000, pp. 62), as well as perceived behavioral control where the outcome may be thought to be influenced by a lack of support by stakeholders. These theories are connected to the study by the proposition where a potential disconnect between what a program is and how an SBAE teacher would like it to be, could be part of the frustration and burnout that exacerbates work-life balance issues and may be related to the larger attrition issue.

Methodology

A Qualtrics instrument was developed by the researchers where respondents indicated their perceived and ideal balance of their programs among the three modeled areas of agricultural education: classroom instruction, SAE, and FFA. The instrument was checked for face and content validity and pilot tested among New Mexico SBAE teachers. The pilot data was used to calculate a Chronbach' Alpha ($\alpha = .92$). A stratified random sample was taken from Georgia, Oregon, and Texas from the respective regions, sections, and areas delineated by respective FFA offices. As part of a larger study, samples from each state needed to be relatively uniform in size. As a result, 20 SBAE teachers were selected from each of the three regions in Georgia, 15 from each of the four sections in Oregon, and five from each of the 12 areas in Texas. The instrument was delivered digitally following the recommendations of Dillman, Smyth, and Christian (2014). To account for potential non-response error, early responders were compared to late responders. No significant differences were found between early and late responders on perceived levels of classroom instruction $t(119) = -.402$, $p = .688$, SAE $t(119) = -.205$, $p = .838$, or FFA $t(119) = .774$, $p = .440$.

Findings

Data were exported into SPSS (25) and explored for potential violations of assumptions (Field 2013) with no issues found. Paired sample *t* – Tests were run with significance level set *a priori* at $\alpha = .05$. Significant differences were found (Table 1) between the perceived and ideal means of classroom instruction levels among Agriscience teachers from Oregon ($M_{perceived}$ = 50.85, M_{ideal} = 41.19, $t(47) = 5.07$, $p < .001$, $d = .69$), Georgia ($M_{perceived}$ = 46.12, M_{ideal} = 41.11, $d = .33$), $t(30) = 2.68$, $p = .010$), Texas ($M_{perceived}$ = 40.27, M_{ideal} = 32.18, $t(30) = 5.06$, $p < .001$, $d = .66$), as well as the differences between the entire sample ($M_{perceived}$ = 46.50 M_{ideal} = 38.85, $t(120) = 7.05$, $p < .001$, $d = .53$). There were also significant differences found between the mean and ideal SAE levels in Oregon ($M_{perceived}$ = 18.52, M_{ideal} = 28.64, $t(47) = -8.96$, $p < .001$, $d = 1.12$), Georgia ($M_{perceived}$ = 23.17, M_{ideal} = 27.76, $t(41) = -3.04$, $p = .004$, $d = .50$), Texas ($M_{perceived}$ = 24.85, M_{ideal} = 30.90, $t(30) = -3.40$, $p = .002$, $d = .60$), as well as the differences between the entire sample ($M_{perceived}$ = 21.75, M_{ideal} = 28.91, $t(120) = -8.42$, $p < .001$, $d = .75$). There were no significant differences between the perceived and ideal levels of FFA activities in any state.

Table 1
Differences Between Perceived and Ideal Levels of Classroom Instruction and SAE in Georgia, and Texas

	n	*t*	df	*p*	Cohen's d	Effect*
Classroom Instruction						
Oregon	48	5.07	47	< .001	.69	Medium
Georgia	42	2.68	41	.010	.33	Small
Texas	31	5.06	30	<.001	.66	Medium
Overall	121	7.05	120	<.001	.53	Medium
SAE						
Oregon	48	-8.96	47	< .001	1.12	
Georgia	42	-3.04	41	.004	.50	Large
Texas	31	-3.40	30	.002	.60	Small
Overall	121	-8.43	120	< .001	.75	Medium

* (Cohen, 1988)

Conclusions, Implications, and Recommendations

Respondents from all included states provided data that showed significant differences between current and ideal levels of classroom instruction with each state indicating that less time should be spent. This perceived surplus of time allocation could be a potential source of work-work or work-life imbalance which could have impacts on career choices and longevity (Ingersoll & Smith, 2003; Sorenson, et al., 2016). Further research should be conducted to identify how teachers are allocating their time in this area and where they would like to reduce time.

Similarly, all states reported data that indicated a desire to increase the level of SAE focus in their programs. It cannot be discerned from this study if this increase is a desire for more time allocation to supervise SAEs, more students engaged in SAEs, more opportunities for members to exhibit their projects, or more diversity in the options for potential SAE projects. A needs assessment should be conducted to identify areas of improvement or opportunities to increase SAE activity or implementation.

References

Ajzen, I. (2000). Theory of Reasoned Action. In A. E. Kadzin (Ed.), *Encyclopedia of Psychology, Volume 8*. (pp. 61-63). Doi: 10.1037/10523.026

Ajzen, I. (2006). *Behavioral Interventions Based on the Theory of Planned Behavior*. Retrieved from https://people.umass.edu/aizen/pdf/tpb.intervention.pdf

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences.* Hillsdale, ND: Lawrence Erlbaum

Crutchfield, N., Ritz, R., & Burris, S. (2013). Why agricultural educators remain in the classroom. *Journal of Agricultural Education, 54*(2), 1-14. Doi: 10.5032/jae.2013.02001

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, Phone, Mail, and Mixed Mode Surveys: The Tailored Design Method.* Hoboken, NJ: Wiley

Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics 3rd Ed.* New York: Sage

Hainline, M. S., Ulmer, J. D., Ritz, R. R., Burris, S., & Gibson, C. D. (2015). Career and family balance in agricultural science teachers by gender. *Journal of Agricultural Education, 56*(4), 31-46. Doi: 10.5032/jae.2015.04031

Ingersoll, R. M., & Smith, T. M. (2003). The wrong solution to the teacher shortage. *Education Leadership, 60*(8), 30-33.

Kantrovich, A. J. (2007). *A national study of the supply and demand for teachers in agricultural education from 2004-2006*. Morehead, KY: Morehead State University

Smith, A. R., Lawver, R. G, & Foster, D. D (2018). *National Agricultural Education Supply and Demand Study, 2017 Executive Summary.* Retrieved from: www.naae.org/teachag/2017%Nationwide%20Profile.pdf

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. Doi: 105032/jae.2011.02107

Sorensen, T. J., McKim, A. J., & Velez, J. J. (2016). Why agriculture teacher leave: A national examination of turnover intentions and work-family conflict. *Journal of Agricultural Education, 57*(4), 186-201. Doi: 10.5032/jae.2016.04186

Wigfield, A. (1994). Expectancy-Value theory of achievement motivation: A developmental perspective. *Educational Psychology Review, 6*(1), 49-78.