Research Poster

Defining Programmatic Balance in School Based Agricultural Education Programs: A Modified Delphi Study

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Introduction/Purpose

The teacher shortage in agricultural education is far from breaking news. In fact, there has been a shortfall of teachers every year since 1965 (Kantrovich, 2007). Some attrition has been attributed to retirements, but there has been loss from teachers leaving the field of agricultural education or the profession of teaching altogether (Lawver, Foster, & Smith, 2018). To help fill the gap, recruiting initiatives like the National Teach Ag program have attempted to bring new young teachers into the field. Similarly, new teacher induction and mentoring programs attempt to help stem the loss of early career teachers. Studies have investigated the struggle to achieve work-life balance and the need to find a balance between work and personal lives (Murray, Flowers, Croom, & Wilson, 2011; Sorenson, McKim, & Velez, 2016). Moreover, some organizations suggest the need to create a balanced program between the three components of agricultural education: Classroom Instruction, FFA, and Supervised Agricultural Experiences (Georgia DOE, 2017; North Carolina DPI, n.d.). Despite the term being used and the concept suggested, there is no published or empirical definition for "programmatic balance" or "balanced" in agricultural education. The purpose of this study was to fill the gap in the literature and propose a research-based definition of programmatic balance.

Theoretical Framework.

Theory of Planned Behavior (TPB) served as the underpinning for this study. Ajzen (1991) developed TPB as an extension of his earlier theory of reasoned action. The TPB model suggests that an individual's intentions and decisions are predicated on behavioral, normative and control beliefs that shape personal attitudes towards the behavior, subjective normative attitudes, and perceived behavioral control (respectively). A common thread in the literature regarding attrition and work-life balance has been the diversity and volume of work required of SBAE teachers. Recent studies showed teachers across the nation average over 55 hours per week (Murray, et al., 2011; Hainline, Ulmer, Ritz, Burris, & Gibson, 2015). The researchers suggest that there is an issue beyond the idea of work-life balance resulting from a lack of balance in the programs themselves and further suggest that we may be routinely asking too much of SBAE professionals. The relation between possible program imbalance and the theoretical framework for this study is thus, it is difficult to expect teachers to seek balance in their program if the term is not part of their lexicon as a behavior to develop beliefs and attitudes around.

Methods

Developed by the Rand corporation for the military, the Delphi method is based on the idea that "two heads are better than one" and utilized to generate consensus among a group of experts (Hsu & Sanford, 2007). This study used a three-round, modified Delphi process that included a qualitative generative round and two iterative feedback rounds (Warner, 2017; Hsu & Sanford, 2007; Linstone & Turoff, 2002). A key structure in the use of Delphi techniques is gaining insight from a panel of experts willing to provide input and are knowledgeable in the subject being discussed (Hsu & Sanford, 2007; Warner, 2017). The group of experts included all (N = 168) members on the list-serve of the National Association of Supervisors of Agricultural Education (NASAE). Accessing the entire population was necessary because the researchers

were granted use of the list server but not access to the email list to make a sample. The number of respondents in each round was greater than the minimum size of 13 recommended by Dalkey (1969) to achieve a reliability level of .9.

The generative round instrument contained one demographic question and the following open-ended question: How do you define a balanced agricultural education program in terms of classroom instruction, FFA, SAE, or other programmatic activities? Responses were printed and qualitatively analyzed using holistic, structural and *in vivo* methods (Saldana, 2013). Response phrases were reviewed and used to generate the round two instruments where participants were asked to indicate their level of agreement with the statement on a Likert-type scale of 1-6 where 1 = Strongly Disagree and 6 = Strongly Agree. Consensus levels were set *a priori* at 83% of respondents indicating agreement or a mean response of 5 or greater. Items not meeting initial consensus but receiving agreement responses from more than 50% of participants were retained for the third round.

Findings

The initial round instrument was completed by 41 individuals including 32 who identified as filling the role of state supervisor, executive secretaries, or both. Responses were categorized into nine themes and a 31-item round two prompts. Round two responses (n = 68*)* yielded consensus on 14 items, nine prompts were retained for round three, and eight were rejected. Responses (n = 23) from the final round provided consensus on three of the nine items for a total of 17 items of group agreement relating to the objectives of the larger research project. Statements meeting consensus were used to generate the following proposed definition of programmatic balance or a balanced program: A balanced SBAE program is one where:

- The classroom is the foundation of the program, driven by the needs of the community, the interest of the students, and includes field, laboratory or shop activities;
- Equal importance is placed on FFA and SAE engagement for all students and where those (FFA and SAE) opportunities are relevant to the students, build from what is taught, and evidence of activities are included in the overall performance evaluation of the student; and where
- Leadership and career development are not exclusive to formal FFA functions and opportunities exist in classroom, lab, and in the community.

Conclusions, Implications, and Recommendations

The expert panel clearly communicated an equal emphasis on the three elements of the agricultural model but also indicate that the classroom should serve as the foundation for the SAE and FFA components. This begs several questions: Can there be equal emphasis on all three areas if two are offshoots of the third? Is the current Venn-type diagram model accurate for agricultural education? And, does the definition of programmatic balance reflect a balance of opportunities for the student or a balance of teacher activities? Further research is needed to explore potential differences in between balance of opportunities and balance of work as well as perceptions and sources of programmatic balance. Additionally, the proposed definition reiterates the need for pragmatism through lab-based teaching as well as the opportunities for leadership and career-development opportunities beyond formal FFA activities. A system for programmatic evaluations and community needs assessments is recommended to examine if these elements are present in programs proportional to the needs and desires of the stakeholders.

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