

Experiences of Alternatively Certified Agricultural Teachers in Texas

Eryn Pierdolla, M.S.
Graduate Student
Department of Agricultural Education and Communications
Texas Tech University
Box 42131
Lubbock, TX 79409
Phone: 210-334-9920
Email: eryn.pierdolla@ttu.edu

Dr. Scott Burris
Professor and Department Chair
Department of Agricultural Education and Communications
Texas Tech University
Box 42131
Lubbock, TX 79409
Phone: 806-834-8689
Email: scott.burris@ttu.edu

Experiences of Alternately Certified Agricultural Teachers in Texas

Introduction/Theoretical Framework

Nationally, teacher shortages are an ever-increasing issue based on multiple factors (Castro et al., 2018). Agricultural education is experiencing this same phenomenon as evidenced by the National Supply and Demand Study (Smith et al., 2018). To help remedy the shortages, alternative certification routes offer individuals an additional pathway to enter the education field (Claflin et al., 2020). Smith et al. (2018) reported in their National Agricultural Education Supply and Demand Study that 22.8% of the total hires for the 2018 academic year received their certifications using an alternately certified pathway. Alternately certified agricultural teachers' numbers are continually increasing in secondary education to meet the supply and demand problem. Currently in Texas, there is no tracking system in place to identify these individuals nor their background and experiences. How are we to address and support the needs of alternately certified teachers if we do not know who they are?

The theoretical framework of the study was based on the expectancy-value theory. Expectancy-value theory was initially developed by Atkinson (1957) to understand achievement motivations. The theory continued to evolve with research completed by Eccles et al. (1983) which focused on gendered enrollment patterns in secondary school mathematics. The foundation of the expectancy-value theory is that individuals will choose behaviors that are based on the outcomes that are expected and values that they believe in (Borders et al., 2004). Success expectancies and task valuation are driving forces for motivation (Watt & Richardson, 2007). This theory can be used to explain an individual's career motivations including entering the education field directly after graduation or choosing an alternately certified route.

Purpose(s)/Objective(s)

The study sought to establish baseline documentation of the alternative certification pathway for teachers in Texas. The objectives of the study included:

1. Describe certification path and status of alternately certified Ag Teachers in Texas.
2. Describe experience and education of alternately certified Ag Teachers in Texas.

Methods/Procedures

The exploratory survey design sought data from all Agriculture, Food, and Natural Resource Teachers (Ag Teachers) in Texas. Since there is no mechanism to target members of this population who are alternately certified, the questionnaire was distributed to current members of the Agricultural Teachers Association of Texas. Without direct access to membership information or contact tools, the questionnaire was sent from the Agricultural Teachers Association of Texas Executive Director to the state's area coordinators for further distribution. A reminder email was sent 10 days later. This convenience sampling strategy yielded responses from 259 teachers with 40 identifying their certification path as alternative. These responses were used as the sample ($N = 40$) for analysis of alternately certified Ag Teachers in Texas. Data were collected during March and April of 2021 using an instrument

created and distributed using Qualtrics. The respondents were first asked to identify the certification route used; skip logic was incorporated to ask an additional nine questions to the alternatively certified respondents. Descriptive statistics were analyzed using SPSS v26.

Results/Findings

A total of 259 individuals responded to the study with 40 self-reported as alternatively certified. On average, alternatively certified Ag Teachers had almost nine years of experience ($M = 8.73$, $Md = 5.50$, $SD = 7.06$), with most of their experience in agriculture ($M = 6.70$, $Md = 4.00$, $SD = 6.12$). Years of experience ranged from one to 26 years. The majority of the alternatively certified Ag Teachers (67.5%) had only earned a Bachelor's degree with most (85%) having earned a degree in an agricultural related field. Furthermore, the majority of the study's respondents (62.5%) had no other teaching certifications. Those who held other certifications (37.5%) included a wide variety of content areas. Most (75.0%) initially earned their teaching certifications in agriculture. Additionally, the majority (57.5%) utilized a private for-profit program to gain certification. Nine individuals (22.5%) utilized a university program to earn their certification and eight respondents (20%) used an education service center in Texas.

Conclusions/Recommendations/Implications

This research study is limited by a non-probabilistic sampling strategy, which does not allow for generalizations to a larger population. However, the data obtained provided valuable information related to the undocumented alternatively certified Ag Teachers in Texas.

The first objective sought to describe the certification path and status of alternatively certified Ag Teachers in Texas. Based on the results of this study, 15.44% of the sample were self-identified to be alternatively certified. This is very close to the national average (16.5%) reported by Foster et al. (2020). Private for-profit programs were used by the majority to obtain their teaching certification. Recommendations for further research would include evaluating why specific programs or pathways were used over others.

A majority of alternatively certified teachers identified their highest level of education as a bachelor's degree, most in an animal agriculture field. This result is consistent with Rocca and Washburn (2006) who found the majority possessed a bachelor's degree in animal science. This finding suggests that a number of alternatively certified teachers come to the teaching profession from other career pathways within agriculture. However, the alternatively certified Ag Teachers had more years of overall teaching experience versus only agriculture teaching experience indicating that these individuals entered the teaching field in another content area and then obtained an agriculture content certification. This seems to be a different route to teaching agriculture than the previous group. Further clarification of the various pathways to certification can allow for more tailored professional development and support programs.

This research study sought to ultimately describe a population of Ag Teachers that has not been documented in Texas for further research. As this population continues to increase, it is important to understand the background and previous experiences of these individuals for recruitment efforts to lessen the demand that agricultural education is experiencing.

References

- Atkinson, J. W. (1957). Motivational determinants of risk taking behavior. *Psychological Review*, 64, 359-372.
- Borders, A., Earleywine, M., & Huey, S. J. (2004). Predicting problem behaviors with multiple expectancies: Expanding expectancy-value theory. *Adolescence*, 39, 539-550.
- Castro, A., Quinn, D. J., Fuller, E., Barnes, M., & University Council for Educational Administration. (2018). *Addressing the importance and scale of the U.S. teacher shortage. UCEA policy brief 2018-1*. ResearchGate.
https://www.researchgate.net/publication/322603105_Addresssing_the_Importance_and_Scale_of_the_US_Teacher_Shortage/link/5a709ca3458515015e63eefc/download
- Clafin, K., Lambert, M. D., & Stewart, J. (2020). An investigation of the routes of certification and turnover intentions of Wisconsin agriculture teachers. *Journal of Agricultural Education*, 61(1), 128-129. <https://doi.org/10.5032/jae.2020.01128>
- Eccles, J. S., Adler, T. F., Futterman, R., Gof, S. B., Kaczala, C. M., & Meece, J. L. (1983). Expectancies, values, and academic behaviors. In J. T. Spence (Ed.), *Achievement and achievement motivation* (pp. 75-146). Freeman.
- Foster, D. D., Lawver, R. G., & Smith, A. R., (2020). *National Agricultural Education Supply and Demand Study, 2019 Executive Summary*. AAAE.
<http://aaaeonline.org/Resources/Documents/NSD2019Summary.pdf>
- Rocca, S. J., & Washburn, S. G. (2006). Comparison of teacher efficacy among traditionally and alternatively certified agriculture teachers. *Journal of Agricultural Education*, 47(3), 58–69. <https://doi.org/10.5032/jae.2006.03058>
- Smith, A. R., Lawver, R. G., & Foster, D. D. (2018). *National Agricultural Education Supply and Demand Study, 2017 Executive Summary*. AAAE. <http://aaaeonline.org/Teacher-Supply-and-Demand/>
- Watt, H. M. G., & Richardson, P. W. (2007). Motivational factors influencing teaching as a career choice: Development and validation of the FIT-Choice scale. *The Journal of Experimental Education*, 75(3), 167-202. <https://doi.org/10.3200/JEXE.75.3.167-202>