

**Preservice and Student Teacher Attitudes Toward the Education of Gifted Students in
Agricultural Education**

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Introduction/Need for Research/Literature Review

The National Center for Education Statistics (2018) reported in 2013-2014 that 6.7% of students in the United States participate in gifted programs. Yet according to Plucker, Giancola, Healey, Arndt, and Wang (2015), only two states require courses in gifted education for teacher preparation, even though the Higher Education Opportunities Act (2008) lists gifted and talented students among those where there needs to be "...focus on the identification of students' specific learning needs..." (p. 122) in teacher preparation programs. This research is consistent with research priority five of the American Association for Agricultural Education National Research Agenda, calling for efficient and effective agricultural education programs, with regards to teacher preparation and professional development (Thoron, Myers, & Barrick, 2016).

Theoretical and Conceptual Framework

The Differentiated Model of Giftedness and Talent by Francoys Gagné (2010) was utilized for this study. The model suggests that gifts (natural abilities) and talents (competencies) are separated by a developmental process in which students undergo to develop talent in a "field of human activity" (Gagné, 2010). Environmental and interpersonal catalysts influence the development of talents. Teachers are among those individuals within the environmental catalysts that influence and have an impact on their gifted students, as well as those provisions such as curriculum and pedagogy. Megay-Nespoli (2001) identified "moderately positive attitudes toward academically talented learners" among preservice teachers. Geake and Gross (2008) identified negative perceptions of gifted students' cognitive characteristics, social noncompliance, and antisocial leadership among inservice teachers. This study aims to identify attitude differences based on stage of teacher development: before and after student teaching.

Purpose, Objectives, & Methodology

The objective of this study was to identify the (1) attitudes of preservice agriculture teachers toward the education of the gifted after student teaching, and (2) how that differs from attitudes identified prior to student teaching. Gagné and Nadeau's Opinion About the Gifted and their Education questionnaire (1991) was modified to address agricultural education, as opposed to general education, and distributed to students in the final methods course for agricultural education and technology engineering education students in the Fall 2018 semester prior to student teaching (N = 20). Questionnaire statements were placed on a 6-point Likert-type scale (1 = *strongly disagree* to 6 = *strongly agree*). Students were given five questions about their preservice teacher preparation program and their only required special education course. The 35-item questionnaire was administered as a pre-test prior to a guest lecture on gifted and talented students. The questionnaire was then administered as a post-test at the conclusion of student teaching for agricultural education preservice teachers in the spring of 2019, as an optional part of the student teaching seminar course for agricultural education (N=16).

Results/findings

The pre- and post-tests were analyzed using an independent samples *t*-test. There were three questionnaire items that received significantly different responses after the student teaching experience. Preservice teachers felt significantly less prepared to teach gifted students in their

future classroom after having student taught. They believed some agriculture teachers feel their authority threatened by gifted children significantly more than they did prior to student teaching. They also believed that gifted students are valuable to the agriculture industry significantly more after student teaching than they did prior to student teaching.

Table 1

Attitudes Toward Gifted Students and Teacher Education Program

Item	Pre-Student Teaching			Post-Student Teaching			<i>t</i>	<i>p</i>	Δ
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>			
Utah State University has adequately prepared me to teach students identified as gifted and talented in my future classroom.	3.72	1.02	18	2.50	1.20	8	-2.682	0.013	-
Some agriculture teachers feel their authority threatened by gifted children.	2.50	0.97	17	3.63	1.41	8	2.342	0.028	+
Gifted persons are a valuable resource for the agriculture industry.	4.76	1.30	17	5.86	0.38	7	2.159	0.042	+
Our agricultural education programs are already adequate in meeting the needs of the gifted.	4.00	0.79	17	3.38	0.92	8	-1.755	0.093	-
The best way to meet the needs of the gifted is to put them in special classes.	3.00	0.84	18	2.38	0.92	8	-1.704	0.101	-

Conclusions, Implications, and Recommendations

Perceptions of preservice agriculture teachers toward working with gifted students changed due to the student teaching experience. They feel less capable in teaching gifted students, but also that these students are increasingly important to the agriculture industry.

Qualitative research should be conducted to determine what experiences during the student teaching experience caused this shift in belief, as well as why they feel the way that they do. Due to small population, this study should be replicated with a larger cohort of preservice agriculture teachers, administering the questionnaire both before and after the student teaching experience. Although non-significant, they decreasingly believe that special classes are needed to meet the needs to gifted students, but also decreasingly believe that our agricultural education are already adequate. So how are we meeting the needs of gifted and talented students in the classroom? More resources related to differentiating curriculum for gifted and talented students should be made available to preservice agriculture teachers, to both better prepare student teachers to teach students identified as gifted and reduce their perceptions of threatened authority.

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