

Preservice Agriculture Teacher Attitudes Toward the Education of the Gifted

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Introduction/Need for Research/Literature Review

Agriculture teachers are responsible for teaching a wide range of students within courses that are heterogeneous in ability level. Expecting to have a greater number of jobs available in food, agriculture, and natural resources than graduates are able to fill (Goecker, Smith, Fernandez, Ali, & Theller, 2015), highly capable students need to be recruited in the field of agriculture. This concern is consistent with research priority 3 of the AAAE National Research Agenda for preparing the 21st century workforce in agriculture (Stripling & Ricketts, 2016). The National Center for Education Statistics (2018) reported that 6.7% of all students nationally were enrolled in gifted and talented programs in 2013-2014, the most recent statistic available. Career and Technical Education (CTE) courses should be viewed as a viable option for gifted and talented students (Gentry, Hu, Peters, & Rizza, 2008), yet the attitudes of preservice agriculture teachers toward educating gifted students in their future classrooms is unknown. It is also unclear how much training preservice agriculture teachers receive in preparation to teach gifted students.

Theoretical and Conceptual Framework

Francoys Gagné's (2010) Differentiated Model of Giftedness and Talent was operationalized for use in this study. The model describes a developmental process in which students transform natural abilities (gifts) into competencies (talent) (Gagné, 2010). This developmental process is influenced by environmental, interpersonal and chance catalysts either positively or negatively (Gagné, 2000). Teachers exist as environmental catalysts, as well as their pedagogical decisions in the classroom (Gagné, 2010). Because teacher attitudes towards giftedness have been both positive and negative (Geake & Gross, 2008; Megay-Nespoli, 2001), and preconceived beliefs influence teaching practice (Berman, Schultz, & Weber, 2012), this study aimed at measuring teacher attitudes, as environmental catalysts in teaching gifted students.

Purpose, Objectives, & Methodology

The purpose of this study was to determine the attitudes and preparation of preservice agriculture teachers towards educating the gifted. Specific objectives were to (1) identify preservice teachers' current attitudes towards giftedness and (2) assess the level at which preservice teachers had received training in working with gifted students.

Senior-level preservice agriculture teachers enrolled in their final teaching methods course before student teaching ($N = 18$) were surveyed. Attitudes were measured using a survey adapted from Gagné and Nadeau's Opinion About the Gifted and their Education questionnaire (1991). Items were on a 6-point Likert-type scale (1 = *strongly disagree* to 6 = *strongly agree*). Prior training regarding gifted education was measured by asking five additional questions about a course in their preservice teacher education program designed to prepare teachers to work with special populations of students. This course was the only special education course in which agricultural education majors were required to take. Additionally, the researchers examined syllabi from this course specifically searching for the terms *gifted* or *talented*.

Results/findings

Objective one sought to determine the attitudes of preservice agriculture teachers. Table 1 shows the most agreeable and disagreeable statements towards gifted students.

Table 1. Most Agreeable & Disagreeable Statements about Gifted Students (N=17)

<i>Most Agreeable Statements</i>	<i>M</i>	<i>SD</i>
Gifted persons are a valuable resource for the agriculture industry	4.76	1.30
Tax-payers should not have to pay for special education for the minority of children who are gifted	4.32	1.01
In order to progress, a society must develop the talents of gifted individuals to a maximum	4.26	1.37
Our school should offer special educational services for the gifted	4.11	1.08
It is parents who have the major responsibility for helping gifted children develop their talents	4.09	1.00
<i>Most Disagreeable Statements</i>		
The gifted waste their time in regular agriculture classes	1.65	0.70
Gifted children are often bored in agricultural education classes	1.88	0.86
Some agriculture teachers feel their authority threatened by gifted children	2.50	0.97
The regular agricultural education program stifles the intellectual curiosity of gifted children	2.53	1.18
A child who has been identified as gifted has more difficulty in making friends	2.65	1.17

Objective two sought to determine the perceived level at which preservice teachers received instruction about gifted and talented students. Upon examination of the syllabi, the terms *gifted* or *talented* were not included anywhere. Furthermore, when asked directly on the survey if their special education course at any time had addressed teaching students identified as gifted and talented, 50% reported it had, while the other 50% reported it had not. When asked about their level of agreement with the following statement “Utah State University has adequately prepared me to teach students identified as gifted and talented in my future classroom,” 44% of the participants either disagreed or slightly disagreed.

Conclusions, Implications, and Recommendations

Based on these findings preservice agriculture teachers clearly perceive gifted students as a valuable part of the agriculture industry and they seem to look positively on their future potential to work with this special population. Despite this, it appears from our findings that the preservice teachers in this study likely did not receive the necessary training to be successful in working with the gifted in an agricultural education program. Perhaps other university preparation programs are doing a better job? Because of the limitation of a small and isolated sample size, we recommend more research be conducted in other universities and with larger sample sizes to determine how preservice teachers are being trained to work with gifted and talented students. Furthermore, this study was limited to preservice teachers only, and with very little classroom experience. Therefore, it is important that more research be conducted among in-service teachers regarding their perceptions and professional development needs regarding gifted and talented students. Finally, although the findings are limited to the 18 participants of this study only, we feel this research has contributed to the profession as it has highlighted additional needs for research among a population of students sometimes overlooked or forgotten. It has additionally provided teacher educators with a beginning point in which to assess their own programs in meeting the needs of diverse learners. With nearly 7% of the student population in America being classified as gifted and talented, and with renewed efforts in education for teachers to meet the needs of all students, research in this field is certainly warranted.

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