

Analyzing Pre-Service Teachers' Knowledge and Perceived Needs When Working with Students with Learning Disabilities During Student Teaching

Kayla L. Hughes

Texas Tech University
Department of Agricultural Education and Communications
Box 42131
Lubbock, TX 79409-2131
(806) 834-4487
kayla.hughes@ttu.edu

Dr. John Rayfield

Texas Tech University
Department of Agricultural Education and Communications
Box 42131
Lubbock, TX 79409-2131
(806) 834-1956
john.rayfield@ttu.edu

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Introduction/Theoretical Framework

The number of learners with disabilities in secondary agricultural education classrooms continue to escalate (Ross, 2006). Research within the topic of learning disabilities in the agricultural education classroom is imperative. Richardson (2006) stated, "There is little research associated with agricultural education and students who have learning disabilities" (p.12). According to the Department of Education (2018), there has been increase in students with disabilities. The increase in learners with disabilities will require teacher education programs to alter curriculum to suitably meet the needs of the secondary agricultural education student population. As part of university course requirements, pre-service teachers from the teacher preparation cohort at Texas Tech University in 2019 ($N = 18$) were required to enroll in a classroom management course. This course is in place to concentrate on classroom behavior management and equip pre-service teachers with the knowledge and skills needed to implement procedures that encourage appropriate student decorum in the classroom (Texas Tech University, 2019). The relationship between self-efficacy and Theory of Planned Behavior served as the theoretical framework for this study (Ajzen, 1985; Bandura, 1994). As noted by Bandura (1994), self-efficacy beliefs govern how individuals feel, think, behave and how they motivate themselves. When an individual believes they have the necessary amount of resources and opportunities, confidence in the ability to perform a behavior is higher (Ajzen, 2002). Elements of self-efficacy are related to the Theory of Planned Behavior by their influences on attitude, subjective norm and perceived control. All of which play a role on the intentions of the pre-service teachers and their knowledge, self-efficacy and perceived needs when teaching students with learning disabilities.

Methodology

The purpose of this study was to identify the knowledge, level of self-efficacy and perceived needs of the 2019 student teaching cohort when working with students with learning disabilities. A pilot cohort of pre-service teachers at Texas Tech University ($N = 18$) were surveyed during their first month of student teaching. The data collected from the pilot test was used in this study. A Likert-type scale was used to measure knowledge on a scale from 1 to 4 (1 = Not Knowledgeable, 2 = Little Knowledge, 3 = Some Knowledge and 4 = Very Knowledgeable). A 5-point Likert scale was used to assess self-efficacy using a series of statements that elicited responses to prompts of learning disabilities and individual abilities. Perceived needs were measured using "check all that apply" metrics and free response. Choices included: Class Preparation, Time Management, Training on Common Learning Disabilities, Adapted Curriculum, Paraprofessional Support (Student Aid, Special Education Teacher assistance), and Self-Confidence.

The instrument was developed after reviewing instruments currently used in education and special education literature. The created instrument was reviewed by a panel of experts at Texas Tech University for face and content validity. Due to small sample size ($N = 18$), reliability of the instrument was not calculated. The instrument was distributed via Qualtrics. As recommended by Dillman, Smyth, and Christian (2014), weekly email reminders were distributed. The data was then reviewed and analyzed using SPSS with methods recommended by Field (2014).

Findings

It was found that “Little Knowledge” of learning disabilities had a frequency of $f = 4$, followed by modifications ($f = 3$) and accommodations at a frequency of $f = 3$ as well. In regard to perceived knowledge, “Not Knowledgeable” and “Very Knowledgeable” categories had a frequency of $f = 0$ for all topics in the perceived knowledge category. The current study found on average pre-service teachers had “Some Knowledge” ($M = 4.18$) of learning disabilities. Data for overall knowledge and self-efficacy are presented in Table 1. The final part of the instrument, measured self-efficacy. Pre-service teachers reported on average they ‘agree’ ($M = 2.39$) they are confident. The most popular perceived needs were class preparation ($f = 15$), adapted curriculum ($f = 11$), and time management ($f = 10$). Respondents did not list an option in the “Other” ($f = 0$) category. Data for perceived needs are presented in Table 2.

Table 1.
Pre-Service Teachers at Texas Tech University (N = 18) Level of Knowledge and Self-Efficacy

Topic	<i>M</i>	<i>SD</i>
Knowledge	4.18	0.42
Self-Efficacy	2.39	0.44

Table 2.
Pre-Service Teachers at Texas Tech University (N = 18) Perceived Needs

Need	<i>f</i>	%
Class Preparation	15	83.33
Adapted Curriculum	11	61.11
Time Management	10	55.60
Training on Common Learning Disabilities	8	44.44
Self-Confidence	8	44.44
Paraprofessional Support	7	38.90
Other	0	0

Conclusions, Implications, and Recommendations

The findings of this research provide insight to the effectiveness of the classroom management course offered at Texas Tech University. As part of ongoing program evaluation, monitoring pre-service teachers’ needs should be considered best-practice in teacher education programs. Replication of the study at the state or national level within agricultural education and across disciplines is recommended. As is it was found, pre-service teachers’ level of knowledge was higher than the reported level of self-efficacy. It is further recommended that the course increase discussion on learning disabilities and special education in the secondary agricultural education classroom. Increasing self-efficacy will in turn make our teachers better and more effective (Goddard, Hoy & Woolfolk-Hoy, 2000; Mahler, Grobschedl & Harms, 2018).

As stated by Ajzen (2002), providing the necessary resources and opportunities will increase the confidence to perform a behavior. The influence of self-efficacy on pre-service teachers’ attitudes will positively affect their performance in teaching. It is recommended that teacher education programs adjust its courses to accommodate the perceived needs, level of knowledge, and self-efficacy of its pre-service teachers, which may create a more effective teaching force.

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