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The Beliefs of University of Northern Iowa preservice teachers about gifted and talented learners

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THE BELIEFS OF UNIVERSITY OF NORTHERN IOWA PRESERVICE TEACHERS ABOUT GIFTED AND TALENTED LEARNERS

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TABLE OF CONTENTS

PAGE

LIST OF TABLES vi

LIST OF FIGURES ix

CHAPTER 1: INTRODUCTION 1

Purpose 2

Research Questions 2

Relevant Terms Defined 3

CHAPTER 2: LITERATURE REVIEW 6

Characteristics of Gifted and Talented Learners 6

Appropriate Teaching Strategies 7

Teachers' Beliefs Regarding Gifted and Talented Learners 7

How Teachers' Beliefs Impact Gifted and Talented Learners 8

Studies Focusing on Preservice Teachers' Beliefs about Gifted and Talented Learners 9

The University of Northern Iowa's Teacher Preparation Program in Regard to Gifted and Talented Learners 11

State of Iowa Requirements 11

Relation to the INTASC standards 11

Relation to GT learners 12

State Requirements Translated into Practice 12

CHAPTER 3: METHODOLOGY 14

Participants....14
Design....15
Instrumentation....15
Procedure....16
Data Analysis....17
CHAPTER 4: RESULTS AND DISCUSSION....18
Results....18
Prior Coursework or Experiences Concerning Gifted and Talented Learners....21
Coursework about teaching GT learners....22
Experience with GT learners....27
Participants' Perceptions about Their Ability to Teach Gifted and Talented Learners....31
Perceptions about Gifted and Talented Learners....37
Definition of a GT learner....37
Characteristics of a GT learner....39
Best part of working with GT learners....40
Most difficult part of working with GT learners....42
Best thing educators can do for GT learners....44
Necessity of educators trained in strategies to teach GT learners....45
Role of schools in providing services for GT learners....48
Necessity of GT programs and services....52
Self-Identified Gifted and Talented Status of Participants....57

Participants' personal GT status 57

Participants' perception of their GT status 59

Participants' desire to be GT 66

Discussion 69

Summary of Major Themes 69

Characteristics of GT learners 69

Inclusion 71

Elitism 72

Participants' readiness to teach GT learners 72

Limitations 73

Implications 73

CHAPTER 5: CONCLUSION 75

REFERENCES 76

APPENDIX A: QUESTIONNAIRE 79

APPENDIX B: IRB APPROVAL LETTER 82

LIST OF TABLES

TABLE PAGE

1 Participants' Responses which Demonstrate Confusion....19

2 Participants' Coursework Concerning Gifted and Talented Learners 22

3 Participants' Coursework Concerning Gifted and Talented Learners by Major....23

4 Participants' Responses about Their Coursework Concerning Gifted and Talented Learners....25

5 Coursework Concerning Gifted and Talented Learners by Semesters until Student Teaching 26

6 Extent of Coursework about Gifted and Talented Learners Participants Have Completed by the Semester before Student Teaching 27

7 Participants' Experience with Gifted and Talented Learners 28

8 Participants' Experience with Gifted and Talented Learners by Major 30

9 Where Participants' Have Taken Coursework Concerning Gifted and Talented Learners....31

10 How Prepared Participants Feel to Teach Gifted and Talented Learners....32

11 How Prepared Participants Feel to Teach Gifted and Talented Learners by Major....33

12 How Prepared Participants Feel to Teach Gifted and Talented Learners by Semesters until Student Teaching....34

13 Participants' Perceived Preparedness to Teach GT Learners 36

14 Participants' Definitions of GT Learners 38

15 Characteristics of GT Learners as Listed by Participants 39

16 The Best Parts of Teaching GT Learners as Listed by Participants 41

17 The Most Difficult Parts of Teaching GT Learners as Listed by Participants 42

18 The Best Things Teachers Can Do for GT Learners as Listed by Participants 44

19 Participants' Responses about Whether It Is Important for GT Learners to Have Teachers Trained in Strategies to Teach Them 45

20 Participants' Explanations about Whether It Is Important for GT Learners to Have Teachers Trained in Strategies to Teach Them 47

21 Participants' Responses When Asked Whether Schools Should Do More for GT Learners 49

22 Participants' Explanations When Asked Whether Schools Should Do More for GT Learners 50

23 Participants' Responses When Asked Whether GT Programs and Services Should Be Eliminated 53

24 Participants' Explanations When Asked Whether GT Programs and Services Should Be Eliminated 54

25 Explanations from Participants Answering "Maybe/Unsure" or "Yes" 56

26 Participants' Responses When Asked Whether They Had Been Identified as Gifted and Talented 58

27 Participants' Explanations When Asked Whether They Had Been Identified as Gifted and Talented 58

28 Participants' Responses When Asked Whether They Thought They Were Gifted and Talented (Original Data) 59

29 Participants' Responses When Asked Whether They Thought They Were Gifted and Talented (After Adjustments) 60

30 Participants' Explanations When Asked Whether They Thought They Were Gifted and Talented 61

31 Participants' Responses When Asked Whether They Were Happy to Be Gifted and Talented 63

32 Participants' Responses When Asked to Explain Why They Were Happy (or Not Happy) to Be Gifted and Talented 64

33 Participants' Responses When Asked Whether They Wished They Were Gifted and Talented 67

34 Participants' Explanations When Asked Whether They Wished They Were Gifted and Talented 67

LIST OF FIGURES

FIGURE PAGE

1 Participants by Major 20

2 Participants by Semesters Left until Student Teaching 21

3 Extent of Participants' Experience with Gifted and Talented Learners 29

4 How Prepared Participants Student Teaching Fall 2013 Feel to Teach Gifted and Talented Learners 35

5 The Gifted and Talented Status of Participants 60

CHAPTER 1

INTRODUCTION

The needs of Gifted and Talented (GT) learners have long been marginalized in American society. GT learners are often clumped with their peers in the general education classroom, and teachers are rarely given much advice on how to differentiate instruction for this group of students. According to Chamberlin and Moore (2006), "[t]he fact that gifted education does not hold much prominence in teacher preparation programs is not a revelation … When preservice teachers do receive preparation in gifted education, it often consists of only short discussions in education courses" (as cited in Chamberlin & Chamberlin, 2010, p. 381). This status quo should be concerning to all. When GT learners do not have their needs meet, their education suffers. Such suffering is not the only concern; failing our GT learners can have even farther reaching effects. In their celebrated report titled *Templeton National Report on Acceleration: A Nation Deceived: How Schools Hold Back America's Brightest Students*, Colangelo, Assouline and Gross (2004) trumpet the ultimate price that teachers' beliefs about GT learners can elicit, not just for those learners but also for our nation:

> America's school system keeps bright students in line by forcing them to learn in a lock-step manner with their classmates … Instead of praise and encouragement, these students hear one word—no. When they ask for a challenge, they are held back ... Stay in your grade. Know your place … It's a national scandal. And the price may be the slow but steady erosion of American excellence. (p.1)

With the impact that teachers can have on students, there is a need for more preservice teacher training on GT learners. Before this instruction can take place,

however, it is necessary to understand the current beliefs of preservice teachers regarding GT learners.

Purpose

The purpose of this thesis is to identify the beliefs about Gifted and Talented (GT) learners held by preservice teachers at the University of Northern Iowa (UNI). These beliefs, once identified, will be compared with those of other preservice teachers as reported in current literature.

Research Questions

A careful review of the literature has yielded two primary research questions to be addressed in this thesis.

1. What are the beliefs held by UNI preservice teachers regarding Gifted and Talented (GT) learners? Despite the availability of research from other universities, this question has not yet been answered at UNI.
2. What are the implications of the beliefs that will be found at UNI? Possible implications may include the necessity of having a department-wide discussion about the appropriateness of UNI's teacher education program in regard to preparing these preservice educators to teach GT learners.

Relevant Terms Defined

Accommodations are a way to differentiate material for students. According to Van de Walle, Karp, and Williams (2010), "[a]n *accommodation* is a provision of a different environment or circumstance made with particular students in mind. For example, you might write down instructions instead of just saying them orally. Accommodations do not alter the task" (p. 65).

Advanced placement (AP) refers to a program available to high school students through the company, College Board. Students can take national AP exams in the spring. If students' scores are high enough on these exams, they may receive college credit.

Differentiation occurs when teachers adjust instruction based on the needs of the learners in their classroom. According to Tomlinson (2000):

> Whenever a teacher reaches out to an individual or small group to vary his or her teaching in order to create the best learning experience possible, that teacher is differentiating instruction. Teachers can differentiate at least four classroom elements based on student readiness, interest, or learning profile: (1) content — what the student needs to learn or how the student will get access to the information; (2) process — activities in which the student engages in order to make sense of or master the content; (3) products — culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit; and (4) learning environment — the way the classroom works and feels. (n. pag.)

Gifted and talented, commonly abbreviated as GT or TAG (Talented and Gifted), is a relative term. There is "a lack of consensus as to what qualifies a person to be defined as gifted for the purposes of research" (Carman, 2013, p. 53). As such, the definition for *gifted and talented* will be taken from the Iowa Administrative Code which states that:

> *"Gifted and talented children"* refers to those students, distinguished from the total K-12 student population, who are identified as possessing outstanding ability and who are capable of high performance. Gifted and talented children are children who require appropriate instruction and educational services commensurate with their abilities and needs beyond those provided by the regular school program. Gifted and talented children include those children with demonstrated achievement or potential ability, or both, in any of the following areas or in combination: general intellectual ability, creative thinking, leadership ability, visual and performing arts ability, or specific ability aptitude. (Gifted and Talented Programs, 2010, 281 IAC 59.2)

This definition is based on the original federal definition for *gifted and talented* children which was developed by the then Commissioner of Education, Sydney Marland, in his 1972 congressionally-mandated report known as the Marland Report (Karnes & Stephens, 2008).

Inclusion is a term that has emerged from legal policies (FSU Center for Prevention & Early Intervention Policy, 2002). This said, there is no federal definition for inclusion. Inclusion refers to mainstreaming students of various abilities and with various needs into the regular education classroom. Traditionally, this referred to mainstreaming special education students into the regular classroom, but today there is a push to avoid pullouts in general and meet the needs of all students in the regular classroom with in-class differentiation.

Individualized Education Program (IEP) "is the written record of an eligible individual's special education and related services" (Special Education, 1996, 281 IAC 41.5).

Interstate New Teacher Assessment and Support Consortium, as defined in the Iowa Administrative Code, is "the source of national standards for beginning teachers" (Standards for Practitioner and Administrator Preparation Programs, 2009, 281 IAC 79.2). The acronym INTASC refers to the 1992 standards produced by the Council of Chief State School Officers (CCSSO). Meanwhile, InTASC denotes a reference to the updated standards released in 2011. InTASC fits the organization's new name, Interstate Teacher Assessment and Support Consortium.

Modifications are also a way to differentiate material for students. According to Van de Walle, Karp, and Williams (2010), "A *modification* refers to a change in the problem or task itself" (p. 65).

Preservice teacher applies to undergraduate students currently enrolled at UNI in the teacher education program with the intention to become educators. The terms *teacher candidate* or *future educator* may also be substituted for *preservice teacher*.

Special education is described in the Iowa Administrative Code with the following definition:

> "Special education" means specially designed instruction, at no cost to the parents, to meet the unique needs of an eligible individual. It includes the specially designed instruction conducted in schools, in the home, in hospitals and institutions, and in other settings; instruction in physical education; and includes vocational education if it consists of specially designed instruction. (Special Education, 1996, 281 IAC 41.5)

CHAPTER 2

LITERATURE REVIEW

Characteristics of Gifted and Talented Learners

The National Association for Gifted Children (NAGC, 2008) states that "[g]ifted individuals are those who demonstrate outstanding levels of aptitude or competence in one or more domains" (para. 1). This definition offers a starting point for determining the characteristics of Gifted and Talented (GT) learners. Moore (2012) lists the characteristics that GT learners possess as follows: advanced intellect, high verbal skills, keen power of concentration, atypical responsive behaviors, and performance ability. The Office of Elementary and Secondary Education in the U.S. Department of Education (ED) adds further characteristics to this list in their description of gifted learners:

> Pursuant to section 9101(22) of the Elementary and Secondary Education Act of 1965, as amended by the No Child Left Behind Act of 2001 (ESEA), for purposes of the Jacob K. Javits Gifted and Talented Students Education Program, gifted and talented students are students who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities. (ED, 2008)

Combined, these characteristics help create a profile of GT learners that educators should recognize. These characteristics may also be seen in non-gifted learners, but teachers should not assume these GT and non-GT learners learn in the same way. Rogers (1986) reported that "comparative studies of the cognitive functioning of intellectually gifted and non-gifted children have identified significant differences in cognitive style,

cognitive development and cognitive strategy selection between the two populations" (as cited in Gross, 2000, p. 181). Lewis, Hudson, and Hudson (2010) state this fact simply, "teachers need to understand that [GT] students learn in a different way" (para. 2).

Appropriate Teaching Strategies

Because GT learners have different characteristics from more typical students, it seems logical that teachers should use specific instructional strategies to appropriately reach GT learners. Moore (2012) offered a list of various techniques that have proven effective and appropriate for the instruction of GT learners. Among these were differentiated instruction, compacted curriculum, acceleration, and tiered activities. Although strategies to elicit optimal performance from GT learners have been supported by the professional literature, preservice educators are given neither the time to interact with nor the professional preparation to teach GT learners (Rogers, 2002).

Teachers' Beliefs Regarding Gifted and Talented Learners

Several studies have been conducted to examine teachers' beliefs about GT learners and their education. These studies highlight glaring problems. According to Chamberlin and Chamberlin (2010), many educators exhibit ambivalence, apathy, and hostility towards GT learners. Watters and Diezmann (as cited in Lassig, 2003, p. 141) also reported these sentiments, affirming their observation of "apathy and opposition" from teachers towards GT education. Research conducted by Carman (2011) further indicated that both in-service and preservice teachers had stereotypes impacting their views of GT learners. Moreover, authors of the professional literature have indicated that both preservice and in-service teachers are misinformed about GT learners and GT

education. Some common myths include the idea that GT learners can succeed in the classroom without additional teacher aid (Moore, 2012; Berman, Schultz & Weber, 2012; Lassig, 2003), that all children are gifted (Moore, 2012; Berman et al., 2012), that "it is undemocratic or 'elitist' to give special attention to the gifted learner" (Moore, 2012, p. 40; Chamberlin & Chamberlin, 2010), and that regular classroom teachers should not have to plan curriculum for GT learners because the additional accommodations are too much work (Moore, 2012; Berman et al., 2012). These myths contradict a general educational philosophy that "[a]ll students deserve to be challenged in school" (Akers, 1997, p.4). Yet, rather than benefitting from this ideal, "[t]alented and gifted students often are not challenged and instead spend their school days reviewing concepts that they already have mastered, as 'peer instructors' of students who do not understand the concepts covered, or as professional day dreamers" (Akers, 1997, p. 4).

How Teachers' Beliefs Impact Gifted and Talented Learners

Considering the significant impact educators have on their students' educational experience, teachers have tremendous power over GT learners. Therefore, the myths teachers believe are alarming. In many states, "[t]eacher nomination is among the most common methods of identifying gifted students" (Carman, 2011, p. 791). Ackerman (1997) and McBee (2006) both assert that "[i]n some cases, teacher nominations act in a 'gatekeeper' fashion, as the first step on the identification path" (as cited in Carman, 2011, p. 791). Considering the myths, misconceptions, and negative attitudes discussed, there is reason to be concerned about the education of GT learners. If their beliefs are inaccurate, teachers will not be meeting the needs of GT learners. Furthermore, while

"[f]indings suggest that preconceived beliefs held by individuals about GT learners guide the willingness and approaches used to teach children more so than specific training in the nature/needs of learners" (Berman et al., 2012, p. 19), the literature has also indicated that "there are significant differences between teachers with specialized training in gifted education and those without training" (Berman et al., 2012, p. 20). This would show that while teachers' beliefs and life experiences play a large role in their capacity to respond to GT learners, the importance of preparation for preservice teachers on the topic should not be overlooked. Berman et al. (2012), who studied the beliefs regarding GT learners by students at a Midwestern university before and after they completed the course "Teaching Young Gifted and Talented Learners," found that the "preconceived notions [about GT learners] remained stubbornly intact even after a semester-long experience specific to educating GT learners" (p. 22). The discovery, that one course about educating GT learners was not sufficient was startling, as, at this time, UNI does not have a single course for undergraduate preservice teachers to discuss meeting the needs of GT learners in the regular classroom.

Studies Focusing on Preservice Teachers' Beliefs about Gifted and Talented Learners

Literature discussing the beliefs of preservice teachers about GT learners is still limited. Berman et al.'s (2012) questionnaire yielded qualitative data about the beliefs of preservice teachers. Results proved evidence that the beliefs of preservice teachers at that university "align[ed] with many of the myths and prevailing perceptions associated with giftedness in the literature" (Berman et al., 2012, p. 21–22). This said, Berman et al. (2012) reported that the preservice teachers also developed a greater understanding of GT

learners through the course. However, to some extent, these preservice teachers still held onto their beliefs that all students were gifted and that GT learners did not require additional support. They also "overwhelmingly displayed beliefs that gifted learners would be more of a problem in classroom settings than a blessing" (Berman et al., 2012, p. 23). Berman et al. (2012) concluded their study with a call for more research on this topic in order to expand "the limited knowledge base existing in the literature" (p. 24).

A second study (Carman, 2011) addressed the stereotypes of preservice and current educators regarding GT learners. Participants had demographics similar to those of UNI preservice teachers as they hailed from a Midwestern university which lacked a GT education program and offered limited GT education coursework for undergraduate students. Although the focus was more on identifying stereotypes that preservice and current teachers had about GT learners, Carman (2011) also discussed these educators' beliefs. Gathering both qualitative and quantitative data, Carman (2011) asked participants to visualize a GT learner, write a paragraph about their imaginary GT student and answer a questionnaire aimed at "examin[ing] different areas of stereotypical thinking about gifted people" (p. 798). These specific areas included gender, age, ethnicity, learning interest, talent, and use of eyeglasses. Final results indicated that both preservice and in-service teachers had stereotypical beliefs about GT learners. Carman (2011) wrote that: "81% of preservice teachers held stereotypical thoughts about four or more areas, as compared with 70% of in-service teachers" (p. 799).

The University of Northern Iowa's Teacher Preparation Program in Regard to Gifted and Talented Learners

State of Iowa Requirements

According to the Iowa Administrative Code, "[p]rograms of practitioner and administrator preparation leading to licensure in Iowa are subject to approval by the state board of education" (Standards for Practitioner and Administrator Preparation Programs, 2009, 281 IAC 79.1). As such, the University of Northern Iowa's (UNI) teacher preparation program falls under the control of the State and its Board of Education. Chapter 79 of the Administrative Code outlines requirements for UNI's program.

Relation to the INTASC standards. Among the requirements of Chapter 79 is one that "[e]ach teacher candidate demonstrates acquisition of the knowledge, skills and dispositions designated by the unit standards and aligned with the INTASC standards embedded in the professional education core for an Iowa teaching license at a level appropriate for a novice teacher" (Standards for Practitioner and Administrator Preparation Programs, 2012, 281 IAC 79.15(7)). From their spelling of the word, INTASC, it becomes evident that the State is still using the 1992 standards for teacher preparation rather than the ones updated in 2011 which are now written as InTASC. This is unfortunate. In the 1992 standards, GT learners are not discussed directly. Rather, one of the ten guiding principles mentions them indirectly. Principle 3, which has been labeled "Diverse Learners," simply states, "The candidate understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners" (University of Northern Iowa Teacher Education, n. d., n.

pag.). While it seems appropriate for the State to use some sort of teacher preparation standards, the updated 2011 standards are more relevant to today's teachers and refer to GT learners directly. In "Standard 2: Learning Differences" of the InTASC standards, the Council of Chief State School Officers (CCSSO) outlines that among the "essential knowledge" of teacher candidates and teachers is "understand[ing] students with exceptional needs, including those associated with disabilities and giftedness, and knows how to use strategies and resources to address these needs" (Council of Chief State School Officers, 2011, p. 11).

Relation to GT learners. Although the State does not use the updated standards, it does refer GT learners directly in the Administrative Code. Chapter 79.15(4) holds that:

> Each teacher candidate demonstrates, within specific coursework dedicated to understanding exceptional learners, in other coursework, and in clinical experiences, the necessary knowledge, skills, and dispositions toward meeting the learning needs of all students, including students from diverse ethnic, racial, and socioeconomic backgrounds, students with disabilities, students who are gifted and talented, English language learners, and students who may be at risk of not succeeding in school" (Standards for Practitioner and Administrator Preparation Programs, 2012, 281 IAC 79.15(4)).

The significance of this is that UNI teacher candidates should be receiving coursework about teaching GT learners in specific classes geared towards meeting the needs of diverse learners, general coursework, and clinical experiences.

State Requirements Translated into Practice

To meet the requirements for licensure, UNI has established a "Professional Education Sequence" for preservice teachers. There are ten courses in this sequence,

including four field experience courses. Among these is Meeting the Needs of Diverse Learners in Classrooms (SPED 3150). The UNI 2010 – 2012 course catalog gives this description of SPED 3150: "Introduction to pedagogical, curricular, and social considerations involved in educating diverse learners in the general education classroom" (University of Northern Iowa, 2012, n. pag.). At the time of this study, this was the only course offered to undergraduate students devoted to teaching about diverse learners, and it was aimed at preparing preservice teachers for all diverse learners, not just GT learners.

CHAPTER 3

METHODOLOGY

Participants

The participants were preservice teachers enrolled in a Classroom Management K-8 course (ELEMECML 3120) during the Spring 2013 semester. To take ELEMECML 3120, students must have already passed Elementary Curriculum (ELEMECML 4150/5150), have junior standing, and have been fully admitted into the Teacher Education Program. Selecting a course with such prerequisites helped minimize the possible discrepancy in knowledge about educating Gifted and Talented (GT) learners that would likely occur if freshmen preservice teachers were compared with junior and senior preservice teachers. In other words, it was expected that all students enrolled in ELEMECML 3120 would have had similar professional preparation and background knowledge about GT education and thus would be more comparable.

In total, there were 145 students from five sections of ELEMECML 3120 who chose to participate in this study. Of those 145, 19 were male and 126 were female. There were 22 Elementary/Early Childhood Education majors, 89 Elementary Education only majors, 31 Elementary/Middle Level Education majors, one Middle Level/Secondary Major, and two Elementary Majors who were also pursuing additional degrees (these were in the domains of music and Spanish, respectively). Eighty-three participants indicated they had one semester until student teaching, 37 said they had two, 23 said they had three, and two said they had four or more semesters left.

Evidently, there was in fact a slight discrepancy in the amount of coursework completed by participants; 43% (n = 62) of participants had more than one semester left until student teaching. The reason for this discrepancy was complicated. One of the College of Education Professional Advisors gave this explanation for why upper and lower classmen may be grouped together for a course like ELEMECML 3120:

> Here is an abbreviated list of the multiple factors that impact scheduling: Most students have a minor, all minors have upper division course work, much of the course work has one-time offerings which can create any number of scheduling issues, some upper division major courses have one-time offerings compounding potential scheduling conflicts that will delay graduation, upper division professional sequence courses have campus-wide competition and close toward the end of senior registration making it difficult for juniors to get a seat, and certain courses simply don't work together because of the workload and field experiences involved. This is just the tip of the ice berg in terms of navigating the complexities of scheduling. The number one goal is to graduate students. (J. Bentley-Gadow, personal communication, April 24, 2013)

To accommodate for the possible gap in knowledge between those teacher candidates student teaching in one semester and those student teaching in two or more semesters, the responses of these groups are compared in the results section.

Design

To answer two research questions, the study was designed to generate qualitative research from an open-ended questionnaire which was administered to the participants.

Instrumentation

The questionnaire for this thesis was heavily based on that of Berman et al. (2012). Some modifications were made. These modifications included the addition of

nine new questions to the survey, three of which were based on Berman et al.'s participants' answers to the question, "Is there anything you believe about the gifted and talented I should have asked but didn't in this survey?" Prior to its usage, the survey for this study was approved by the UNI Committee on Research Involving Human Subjects and the Institutional Review Board (Case 12-0142). The complete questionnaire can be viewed in Appendix A.

Procedure

Surveys were administered to all five sections of ELEMECML 3120 during a one-week period in late January 2013. Students were told that they were required to complete the questionnaire for class but that they could choose to allow their responses to be used for research. Those electing to participate signed a consent form which was stapled to their survey. These consent forms were later separated from the surveys. The surveys of preservice teachers not granting permission were discarded. Because the student researcher was enrolled in one section of ELEMECML 3120 and had peers in other sections, two education faculty members administered the survey to try to prevent a response bias that could have occurred had participants realized the student researcher was the one doing the research. In addition, students were advised that survey results would remain anonymous. They were alerted of this fact so as to minimize the measurement bias possible if students were afraid their names would be attached to a survey where they expressed socially and professionally unacceptable opinions about GT learners and their education.

Data Analysis

The survey included 16 open-ended questions that resulted in written data. Responses were "clumped," as described by Berman et al. (2012), "to generate a set of themes that broadly represented descriptive accounts of respondents" (p. 21). That is, similar statements were grouped together into codes or categories to facilitate analysis and determine frequency. Each completed questionnaire was randomly assigned a number to allow for later referencing. These codes did not identify the participant's name. Final analysis involved looking at patterns in the data and analyzing the possible implications.

CHAPTER 4

RESULTS AND DISCUSSION

Results

One hundred and forty-five students agreed to participate in this study. However, three surveys were immediately removed because the participants mistakenly thought that "gifted and talented" referred to students with learning, mental, physical, or behavioral disabilities (normally referred to in education as "special education" students). A summary of their responses which helped identify the discrepancy follows (see Table 1).

Table 1.

Participants' Responses which Demonstrate Confusion

	Respondent 16	Respondent 21	Respondent 62
Demographics	Female, Early Childhood and Elementary Education major, 1 semester left before student teaching	Female, Elementary Education major, 2 semesters left before student teaching	Female, Elementary Education major, 1 semester left before student teaching
Question			
Have you had any experiences working with gifted and talented children? Explain.	"Yes in guidance I did my field experience at Castle Hill [a school in Waterloo, Iowa, for children with special needs]. A majority of these kids had autism or were hearing impaired."	(N/A)	"I previously worked at the YWCA as an inclusion personnel for a child with severe autism."
When someone talks about a gifted and talented learner, what does this mean to you?	"A child who is still capable of learning but may need more one-on-one help and different learning styles."	"Working with individual(s) who needs more preparation or more time completing a project"	"They may have a mental or physical disability. They may also excel in a specialized course of study."
What do you think would be the most difficult part of working with gifted and talented learners?	"how to deal w/ outbursts or grab their attention"	"Reaching to them so they are understanding and comprehending"	"Reaching every child's needs in learning and staying calm."

While there are GT learners referred to as "Gifted-Plus" or "Twice-Exceptional Gifted" who have special needs such as a physical disability, these three respondents

seemed only to discuss special needs students. Thus, their surveys were removed from the pool.

After these three students were removed, 142 participants remained. Of these 142 participants, 19 were male and 123 were female. There were 21 Elementary/Early Childhood Education (EL, EC) majors, 87 Elementary Education only (EL only) majors, 31 Elementary/Middle Level Education (EL, MI) majors, one Middle Level/Secondary (MI, S) major, and two Elementary majors who were also pursuing additional degrees (EL, O). The participants by major are summarized in Figure 1.

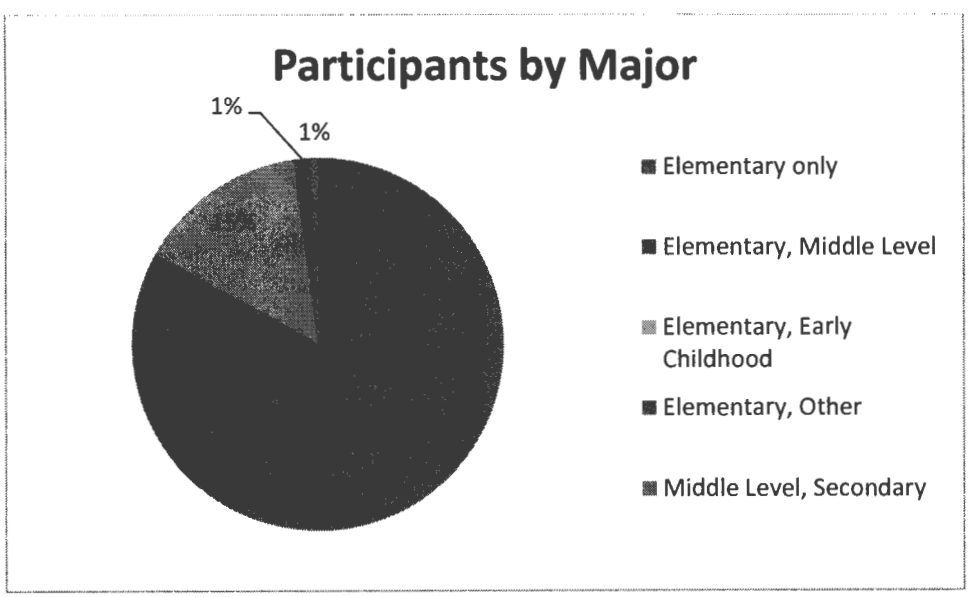

Figure 1. Participants by Major

Additionally, when adjusted for the removal of three participants, the survey included 81 participants who indicated they had one semester until student teaching, 36 who said they had two, 23 who said they had three, and two who said they had four or more semesters left (see Figure 2).

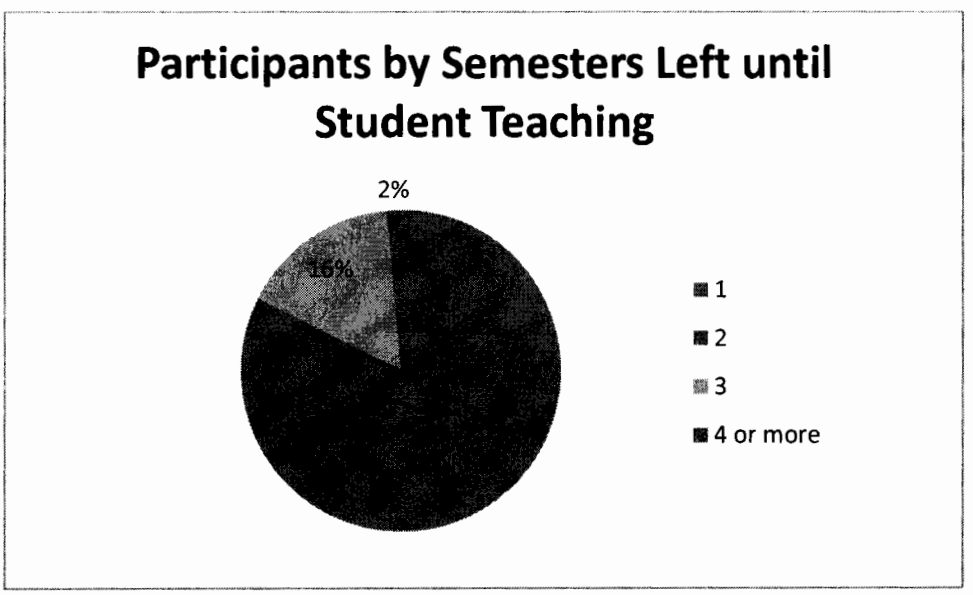

Figure 2. Participants by Semesters Left until Student Teaching

Participant responses were then analyzed based on two demographics: major and semesters left until student teaching. These results follow.

Prior Coursework or Experiences Concerning Gifted and Talented Learners

Students in ELEMECML 3120 were selected because they were most likely to fit the participant criteria necessary (e.g. close to student teaching, upper classmen).

However, as can be inferred from Figure 2, not all students were at the same point in their educational career. Anticipating this, questions about participants' previous coursework and experiences with GT learners were included to try and gauge to what extent their background knowledge was similar.

Coursework about teaching GT learners. To the question, "Have you had any coursework in teaching gifted and talented children?" 51% (n = 73) of all respondents said they had taken coursework in teaching GT youth, while 49% (n = 69) said they had not (see Table 2). In addition, 39 students specified whether they had received "A lot" or "Very little" coursework.

Table 2.

Participants' Coursework Concerning Gifted and Talented Learners

Response	Frequency
Yes	73
No	69
A lot[1]	12
Very little[1]	27

[1]All respondents who wrote "A lot" or "Very little" also indicated either "Yes" or "No." The combined total for "Yes" and "No" responses was 142, but the combined total for the table will not equal 142.

The responses were also analyzed by major. With 74% of dual Elementary and Middle Level Education majors (EL, MI) stating they had taken coursework in teaching GT learners, they appeared to have taken more coursework than either Elementary

Education majors (EL only) or dual Early Childhood and Elementary Education majors (EC, EL). Of Elementary Education only majors and Early Childhood and Elementary Education dual majors, only 44% and 48% respectively indicated that they had taken similar coursework (see Table 3).

Table 3.

Participants' Coursework Concerning Gifted and Talented Learners by Major

Major	Saying Yes	Participants in the Major	% Saying Yes Per Major
EC, EL	10	21	48%
EL Only	38	87	44%
EL, MI	23	31	74%
MI, S	1	1	100%
EL, O	1	2	50%
Total Saying Yes	73	142	51%

This discrepancy between dual Elementary and Middle Level Education majors and the two other majors (Elementary Education only majors and Early Childhood and Elementary Education dual majors) may be accounted for by the course Middle Level Instruction, Differentiation, and Assessment (ELEMECML 4135/5135), which is required for Middle Level Education majors. Taught by Dr. Jean Schneider, ELEMECML 4135/5135 includes an online module on GT learners. In the online module, preservice teachers complete a simulation for identifying gifted learners,

consider characteristics of and myths about gifted learners, are exposed to George Betts's six types of gifted learners and the 18 types of acceleration, determine whether they may be gifted, and learn an instructional strategy called Curriculum Compacting. From this survey's results, it would seem that ELEMECML 4135/5135 is one of the few education courses offering training to undergraduates in teaching GT learners. Of the 23 dual Elementary and Middle Level Education majors stating that they had taken coursework in teaching GT learners, twenty specified that they received it in ELEMECML 4135/5135. However, there did not appear to be any Elementary Education or Early Childhood Education equivalent. Instead, Elementary Education only majors and Early Childhood and Elementary Education dual majors listed general education courses and the professional education course, Meeting the Needs of Diverse Learners (SPED 3150), most frequently as their source of coursework. A subset of 13 students also mentioned that they received their instruction through a Math minor course, Mathematics for Elementary Students with Special Needs (MATH 3215). Table 4 reflects these results.

Table 4.

Participants' Responses about Their Coursework Concerning Gifted and Talented Learners

Response	Frequency[1]
I haven't taken a specific course but I have discussed GT learners in several courses	27
Meeting the Needs of Diverse Learners	24
Middle Level Instruction, Differentiation, and Assessment	20
Other UNI course	15
Math for Special Needs	13
All my courses have discussed GT learners	6
A course I took at my community college addressed GT learners	3

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

The responses to this question were also analyzed by the number of semesters participants had left until student teaching. It was anticipated that preservice teachers with only one semester left would have taken coursework in greater numbers than those with two or more semesters left, and the survey results reflected this. As can be seen in Table 5, 63% of participants with one semester left until student teaching said they had taken coursework on GT learners as opposed to only 42% of participants with two semesters left, 30% of participants with three semesters left, and 0% of participants with four or more semesters left.

Table 5.

Coursework Concerning Gifted and Talented Learners by Semesters until Student Teaching

Semesters Left until Student Teaching	Saying Yes	Participants in the Specified Semester	% Saying Yes Per Semester
1	51	81	63%
2	15	36	42%
3	7	23	30%
4+	0	2	0%
Total Saying Yes	73	142	51%

Even among those participants saying they had taken coursework on teaching GT learners, the extent of their coursework varied. For example, although 51% (n = 73) of all participants stated they had taken coursework ("Yes"), only 8% (n =12) specified that they had taken "A lot" of coursework on the topic while 13% (n = 19) indicated they had taken "Very little" coursework on the topic. It should be noted that teacher candidates were not required to indicate the extent of their coursework, so the 42 students who simply said "Yes" could have been somewhere in the middle or at one of the two extremes ("A lot" or "Very little").

Of the 63% of preservice teachers planning to student teach in the fall who responded that they had taken coursework, 20% (n = 10) specified that they had taken "A lot" of coursework in teaching GT learners, 22% (n = 11) wrote they had taken "Very little," and 59% (n = 30) simply indicated that yes, they had taken coursework ("Yes"). Table 6 displays this data.

Table 6.

Extent of Coursework about Gifted and Talented Learners Participants Have Completed by the Semester before Student Teaching

Student Teaching Status	Yes, a lot	Yes	Yes, very little	Total Saying Yes
Fall 2013	10	30	11	51
Fall 2013 and beyond	12	42	19	73

Participants who specified that they had not taken much coursework highlight a key issue. It is possible that among participants who simply wrote "Yes," some may have actually taken "Very little" or "A lot" of coursework in teaching GT learners. Specifying these determiners changes the data. Furthermore, some of the teacher candidates who said "Yes" wrote statements such as "[I took] Meeting the needs of diverse learners. I learned the vast range of skills in the classroom" (Respondent 11) which would imply that participants may not have had specific instruction in the nature and needs of GT learners. Thus, the number of "Yes" responses may not truly represent the situation.

Experience working with GT learners. When questioned "Have you ever had any experiences working with gifted and talented children?", preservice teachers could be coded more than one response. Forty-seven participants indicated that they had worked with GT learners, 22 stated that they had worked with them some, 93 said they had not worked with them at all, and 9 asserted that they would be working with GT learners the semester in which the study was conducted. These responses were then divided into five

mutually exclusive categories: (1) those participants who said they had worked with GT learners, (2) those who said they'd worked some with GT learners, (3) those who said they'd worked only a little with GT learners, (4) those who said they had not worked with GT learners, and (5) those who said they would work with GT learners that semester. These new categories and their totals are summarized in Table 7.

Table 7.

Participants' Experience with Gifted and Talented Learners

Response	Frequency[1]
Yes, I have worked them.	28
Yes, I have worked with them some.	19
No, I have only worked with them a little.	3
No, I have not worked with them.	81
I will work with them this semester.	9

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

After the data were divided into mutually exclusive categories, it was determined that 60% of participants indicated that they either had no or limited experience with GT learners (see Figure 4).

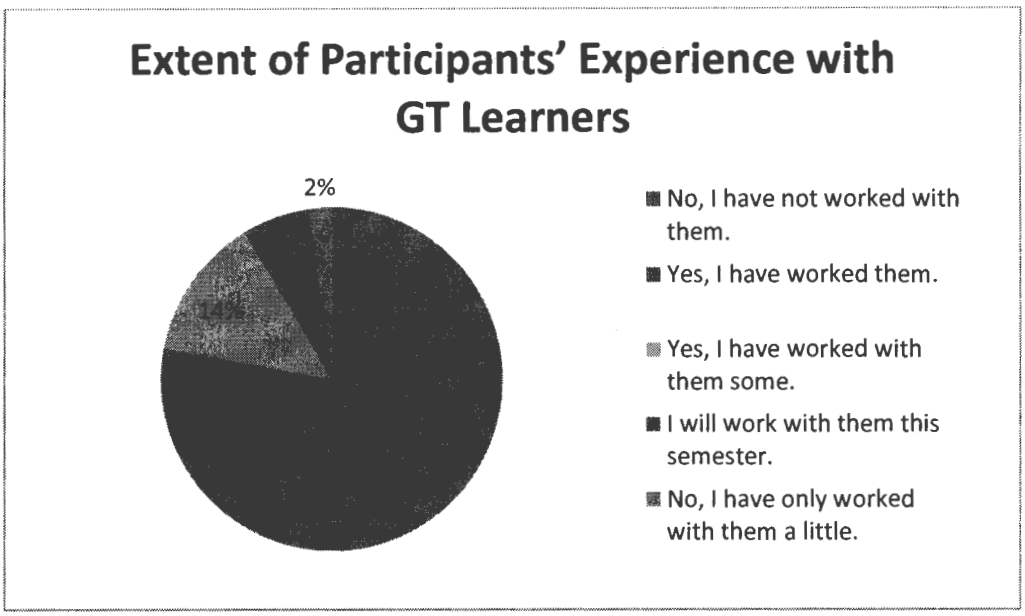

Figure 3. Extent of Participants' Experience with Gifted and Talented Learners

Analyzing these results by major showed smaller differences in extent of experience among majors than had occurred in the analysis of coursework among majors. As can be seen in Table 8, 33% of dual Early Childhood and Elementary majors indicated that they had had experiences with GT learners, while 37% of Elementary Education only majors and 26% of dual Elementary Middle Level majors indicated they had had experience.

Table 8.

Participants' Experience with Gifted and Talented Learners by Major

Major	Saying Yes[1]	Participants in the Specified Major	% Saying Yes Per Major
EC, EL	7	21	33%
EL Only	32	87	37%
EL, MI	8	31	26%
MI, S	0	1	0%
EL, O	0	2	0%
Total Saying Yes[1]	47	142	33%

[1]Includes participants who wrote "Yes" or "Yes, some."

The slightly higher percentage of Elementary Education only majors who indicated they had had experience with GT learners may have been because of the Mathematics for Elementary Students with Special Needs (MATH 3215) course. Thirteen preservice teachers specified that their experience with GT learners occurred in this course. Other frequent sources for experience with GT learners included UNI field experiences (n = 25) and volunteering or tutoring opportunities (n = 23). In Table 9, some additional sources of experience are listed.

Table 9.

Where Participants' Have Taken Coursework Concerning Gifted and Talented Learners

Response	Frequency[1]
UNI field experience	25
Volunteering or tutoring	23
Math for Special Needs (MATH 3215)	13
Out of the classroom	8
I have not worked with them directly (Instead through lesson plans, observations, etc.)	8

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

Additionally, like with the question about coursework, there is the possibility that "Yes" for this question only refers to a partial "Yes." In other words, some participants' "Yes" responses may refer to a limited extent of experience. For instance, Respondent 68 quipped that, "First of all, every student is gifted and talented, so yes, [I have had experience with GT learners] but in reference to students that are particularly advanced in a certain subject, not really." Because of the second part of her sentence, Respondent 68 was counted as having no experience with GT learners. How many others who said they had experience with GT learners only had experience with students who they defined as GT because "every student is gifted and talented?" Should this survey be used again in future research, a Likert scale might help clarify some of these discrepancies.

Participants' Perceptions about Their Ability to Teach Gifted and Talented Learners

Students were also surveyed on their ability to help GT learners with the question, "Do you feel prepared to meet the needs of gifted learners?" This was asked to find out if,

regardless of whether they had taken coursework or had experience with GT learners, students would consider themselves prepared. Fifty-eight participants stated that they either felt prepared or somewhat prepared to meet the needs of GT learners, while 81 participants wrote that they did not feel prepared at the time of the study. Three participants felt unsure about their abilities (see Table 10).

Table 10.

How Prepared Participants Feel to Teach Gifted and Talented Learners

Response	Frequency (n =142)
Yes	28
Somewhat	30
Not Yet	8
No	73
Unsure	3

Participants' impressions of their own preparation level varied by major. Sixty-one percent (n = 19) of dual Elementary and Middle Level Education majors (EL, MI) described themselves as either prepared or somewhat prepared to meet the needs of GT learners as opposed to 38% (n = 33) of Elementary Education majors (EL only) and only 24% (n = 5) of dual Early Childhood and Elementary Education majors (EC, EL). These results are summarized in Table 11. The difference may again be linked to the ELEMECML 4135/5135 course offered to Middle Level Education majors. Respondent

99 was among those answering that yes, he was prepared to meet the needs of GT learners and specifically mentioned the course. He wrote, "Yes, [I feel prepared.] I believe that IDA gave me a strong foundation to grow from. Without this class the answer would be No."

Table 11.

How Prepared Participants Feel to Teach Gifted and Talented Learners by Major

Response	EC, EL	EL	EL, M	M, S	EL, O	Frequency Total
Yes	4	13	11	0	0	28
Somewhat	1	20	8	1	0	30
Not Yet	2	5	1	0	0	8
No	12	48	11	0	2	73
Unsure	2	1	0	0	0	3
Total Respondents	21	87	31	1	2	142

Similarly, participants' impressions of their own preparation levels varied depending on how many semesters they had left until student teaching. Table 12 illustrates that 47% (n =37) of participants student teaching in Fall 2013 said they felt either prepared or somewhat prepared to meet the needs of GT learners. As was expected, among those with more coursework left until graduation, a smaller percentage felt either prepared or somewhat prepared to teach GT learners: only 33 % percent (n = 12) of those with two semesters left and 35% (n = 8) of those with three semesters left wrote that they felt prepared or somewhat prepared.

Table 12.

How Prepared Participants Feel to Teach Gifted and Talented Learners by Semesters until Student Teaching

Response	1	2	3	4+	Frequency Total
Yes	19	6	2	1	28
Somewhat	18	6	6	0	30
Not Yet	4	3	1	0	8
No	39	19	14	1	73
Unsure	1	2	0	0	3
Total Respondents	81	36	23	2	142

Overall, participants seemed to feel that they were unprepared to meet the needs of GT learners. Of those participants student teaching Fall 2013, only 24% wrote that "Yes," they felt prepared to meet GT learners' needs. Twenty-two percent estimated that they were somewhat prepared, 5% percent indicated that they were not yet prepared, 1% felt unsure about their preparation level, and an overwhelming 48% stated that "No," they were not prepared to meet the needs of GT learners (see Figure 5).

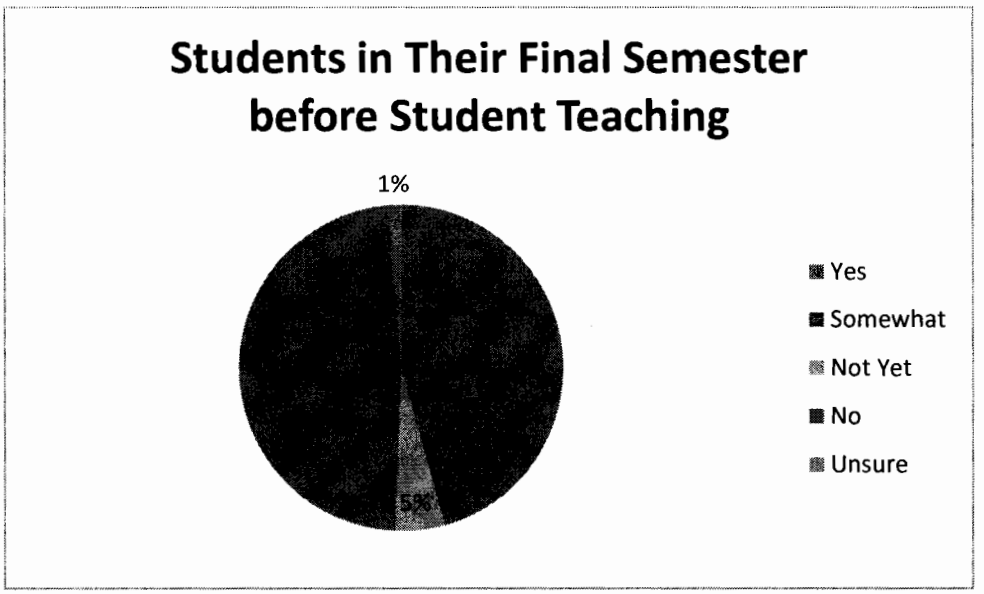

Figure 4. How Prepared Participants Student Teaching Fall 2013 Feel to Teach Gifted and Talented Learners

Participants gave a variety of reasons to explain why they felt unprepared or only partially prepared to meet the needs of GT learners. The most frequent response, made by 53 participants, was "I've had insufficient training or coursework." This response was followed by students attributing their feeling of unpreparedness to not having had experience with GT learners (n = 32). Among those students who wrote they felt prepared or somewhat prepared, 23 participants indicated that they knew best teaching practices and could apply them to GT learners. The top responses can be viewed in Table 13.

Table 13.

Participants' Perceived Preparedness to Teach GT Learners

Response	Frequency[1]
I've had insufficient training or coursework.	53
I don't have any experience with GT learners.	32
I know best teaching practices and can apply them to teaching GT learners.	23
I've had or will have courses at UNI on the topic.	22
I would like to know more or need more training.	15
I will need more training but do not need it from UNI.	12
I will try to do the best I can.	5
I have personal experience with GT learners.	5

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, although the combined total is 142, not all participants may be represented in this number.

It is important to note that only our participants' *perceptions* of their preparation level can be gleamed from these results. Researchers and GT educators might argue with some participants, such as Respondent 12, who stated that teaching GT learners is "just a matter of connecting the right material to the right child" and Respondent 61, who wrote that education majors "haven't gotten much instruction on it yet, but I don't think it would be too difficult." Other respondents seemed to understand that teaching GT learners was a bit more than just "connecting the right material to the right child." Respondent 33 worried that "it kind of scares [her] that some kids may be way more knowledgeable about a subject than [she's] prepared for." She concluded by saying, "I don't want to let [my students] down." Her thoughts were echoed by Respondent 35 who wrote, "If they were in my class with all my other students, I could see myself accidently leaving them out because they may already know what we are learning about." Some

students even admitted that they were not sure what GT was. Respondent 138 said, "No, [I don't feel prepared. I'm] not trained and I don't even fully know what it is. I've just heard about it through friends that went to different schools than me." Thus, the extent to which students are truly prepared to work with GT learners may not be the same as they represented in their responses to this question.

Perceptions about Gifted and Talented Learners

The information about participants' coursework and past experiences in addition to their feelings about the extent of their preparedness to meet GT learners' needs helped form a picture of a UNI student population in which only 51% (n = 73) had taken coursework about teaching GT learners, 33% (n = 47) had had experience with GT learners, and only 20% (n = 28) felt prepared to meet the needs of GT learners. Yet, because the current professional literature indicated teacher beliefs more than training impact an educator's willingness to work towards meeting the needs of their students (Berman et al., 2012), participants' responses were questioned to determine if they gave indications of having stereotypes about GT learners or exhibited negative attitudes towards GT learners.

Definition of a GT learner. The first question asked to check participants' perceptions of GT learners was: "When someone talks about a gifted and talented learner, what does this mean to you?" One hundred and seventeen participants' definitions included the idea that GT learners are academically advanced. Forty-four asserted that GT learners are students who need a challenge, and 42 stated that they excel in certain or multiple areas (see Table 14).

Table 14.

Participants' Definitions of GT Learners

Response *(GT learners ...)*	Frequency[1]
Are academically advanced	117
Need a challenge	44
Excel in certain or multiple areas	42
Learn quickly	14
Should either be included or pulled out	12
Creative	4
Gets bored in class	3

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

Although none of these categories overall reflects myths about students who are GT, individual statements by respondents did include some misperceptions. Respondent 13 stated that GT learners were "above grade level … genius." In addition, a number of students had a somewhat negative underlying tone to their responses. Respondent 33 wrote that a GT learner was "someone who [had] extreme talent at some sort of valued subject/activity." This idea, about GT learners needing to have a talent which has been accepted as "valuable," was also reflected in Respondent 59's definition. She wrote that a GT learner was "[s]omeone who excells [*sic*] at any one subject/all subjects … Someone who has a talent that can take them far in life (my Elementary's TAG program was based solely on art skills)." Such statements may indicate that some respondents feel that GT *programs* are only for students with "valued" talents as opposed to students who are exceling academically.

Characteristics of a GT learner. More misconceptions about GT learners were present in participants' lists they made in response to the question, "List five characteristics of a gifted and talented child." Among the top characteristics (see Table 15) were somewhat accurate ones such as GT learners "are intelligent" (n = 90), "are motivated" to learn (n =69), and "are advanced" (n = 46).

Table 15.

Characteristics of GT Learners as Listed by Participants

Response *(GT learners ...)*	Frequency[1]
Are intelligent	90
Are motivated	69
Are advanced	46
Can be socially different from their peers	29
Are quick learners	26
Are abstract thinkers	25
Are creative	24
Need a challenge	24
Excel in some subject areas	17
Are bored in class	16
Are problem solvers	15
Excel in many or all subjects	12
Are independent	8
Are leaders	8
Are readers	8
Are organized	8
Are confident	7
Can be anyone	7
No answer	3

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

However, 29 participants also asserted that GT learners are "socially different." Socially different was a coding category containing a wide range of responses, both positive and negative. Positive, neutral or literature-based responses asserted that GT learners were socially different in that they were sensitive, self-critical, afraid to fail, mature, shy, perfectionistic, outgoing, patient, kind, and able to communicate well with adults. Negative or myth-based responses included believing that GT learners were socially different in that they were inept, overly emotional, had difficulty relating to peers, were troublemakers, had a hard time working with others, all were introverts, felt like outsiders in the classroom, acted out, and caused disruptions.

Some students seemed to realize that their views were myth-based or stereotypical. For instance, Respondent 59 gave her list: "intelligent, hard-working, student, talented, going somewhere in life" and then supplied, "I feel like these are stereotypes though, not all have these." Respondent 124 wrote something similar noting that she thought GT learners were "1. Intravert [*sic*] 2. Organized 3. Perfectionist 4. Hard-working 5. Inquisitive" and then, added, "These are stereotypes and not always true!" Other students gave no indication they realized they were giving myths or stereotypes. Respondent 13 provided this list: GT learners "[have] supportive parents[, are] clean cut[, are] out going [*sic*], involved in extra curricular [*sic*] activities[, and get] good grades."

Best part of working with GT learners. Myths and stereotypes were not as clear when participants responded to the question, "What do you think would be the best part of working with gifted and talented learners?" Rather, and perhaps not surprisingly,

positive statements such as "seeing what GT learners can do" (n = 69), "the teacher can use more advanced material with them" (n = 24), and "GT learners will challenge the teacher" (n = 21) were the most frequent responses (see Table 16).

Table 16.

The Best Parts of Teaching GT Learners as Listed by Participants

Response	Frequency[1]
Seeing what GT learners can do	69
The teacher can use more advanced material with them	24
GT learners will challenge the teacher	21
GT learners like learning	19
GT learners will teach the teacher things	14
GT learners are creative	5
GT learners can keep up	4
No response	3

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

That is not to say that there were not some responses which seemed to reflect a more stereotypical or negative view of GT learners. Respondent 108 was excited to use GT learners' "insight [to] assist their peers" while Respondent 127 looked forward to having GT learners "understanding the lessons and being able to help other students." Several participants' seemed to reflect the "inclusion" philosophy which has become so popular in education today. Respondent 38 said she thought the best part would be "watching [GT learners] grow and succeed like any other student," and Respondent 81 wanted to help GT learners "reach their full potential just like the other students."

Most difficult part of working with GT learners. Effectively differentiating in the inclusive classroom was the top concern listed in response to the question, "What do you think would be the most difficult part of working with gifted and talented learners?" Sixty-five participants cited one or more aspects of differentiation as likely being the most difficult part of teaching GT learners. Fifty-nine participants worried about being able to challenge GT learners, while 18 were concerned about GT learners being smarter than the teacher, and another 18 were worried about GT learners' attitudes and emotions (see Table 17).

Table 17.

The Most Difficult Parts of Teaching GT Learners as Listed by Participants

Response	Frequency[1]
Differentiating effectively for GT learners	65
Challenging GT learners	59
The attitudes and emotions of GT learners	18
GT learners may be more knowledge than the teacher	18
Working with GT learners without training	4

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

Negative perceptions were also evident in some respondents' answers. Of the 18 participants who mentioned their concerns that the GT learners might be more knowledgeable than they were, several actually sounded fearful including Respondent 114 who wrote, "[The most difficult part would be b]eing afraid they are smarter than

me." Others were more concerned about GT learners' attitudes. Respondent 9 wrote that GT learners "might rub it in to the other students" that they learn quickly. Her statement was echoed by Respondent 79 who expressed concerns about the other students' feelings: The most difficult part would be "[n]ot allowing other students to believe [GT learners] are receiving special treatment, or that the other students are slower." Respondent 37 continued the commentary on attitudes by declaring that she thought the hardest part of working with GT learners would be "keeping them level headed." Respondent 128 summarized the responses by asserting that GT learners "may have an attitude that gives off the impression that they don't want to work because they are ahead."

A subset was also concerned about keeping them occupied. A sample of such responses include: "The most difficult part would be that they would get bored easily" (Respondent 100), "Keeping them occupied in an appropriate manner" (Respondent 115), "Trying to keep them on task with lessons below their learning levels" (Respondent 127), "not enough work for the student" (Respondent 31) and "Keeping the students engaged and not ahead. If they get ahead, they will be more bored later" (Respondent 78). Some respondents seemed to recognize that extra work was not an appropriate instructional strategy for GT learners but were unsure of how to adjust the curriculum. Respondent 145 wrote that the most difficult part would be "[t]rying to keep them busy enough w/o giving them extra work."

These cited responses would indicate that UNI preservice teachers have some misconceptions about GT learners and that many of their concerns stem from uncertainty about how to meet their needs in the inclusive classroom.

Best thing educators can do for GT learners. When asked "As an educator, what's the best thing you can do for gifted and talented learners in your classroom?" many participants stated that they should challenge and engage GT learners (n =95). This statement fits what the research shows is a major need for GT learners (Colangelo, Assouline & Gross, 2004). As can be seen in Table 18, teacher candidates recognized that differentiating instruction would be beneficial (n = 50), though some thought that effective differentiation was giving GT learners more work (n = 16).

Table 18.

The Best Things Teachers Can Do for GT Learners as Listed by Participants

Response	Frequency[1]
Challenge and engage GT learners	95
Differentiate instruction for GT learners	50
Give them extra work	16
Don't just give them extra work	7
Create an inclusive environment in the classroom	7
Give GT learners independence	6
Follow general best practices for teaching	5

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

Respondent 7 was among those who recognized that instruction needed to be differentiated but who endorsed the idea of additional work. She suggested, "I can have them do the same work as others but then have a challenge packet or activity about what we are learning to go more indepth [*sic*]." While it is true that enrichment packets are a

form of differentiating (and probably better than Respondent 25's suggestion: "keep them busy"), having the GT learners do the same work as the other students is requiring them to do extra work and study things they already know. Nevertheless, the distinction was clear to some students; Respondent 9 wrote, "Keep them challenged, not just occupied! Push them to always keep learning!"

Respondent 37 made a good suggestion that educators should "[c]reate a challenging environment." However, the last part of her suggestion, "let [GT learners] use their thoughts to help other[students] stretch their thinking" is a common practice known as peer tutoring that goes against the literature (Akers, 1997). This belief was also held by Respondent 135 who advised that educators should "[p]rovide [GT learners] the opportunity to succeed and maybe help other students."

Necessity of educators trained in strategies to teach GT learners. To the question: "Do you think it is important for gifted and talented students to have teachers trained in strategies to teach gifted and talented students?", 137 participants answered "Yes," two participants answered "No" and three answered "Somewhat" (see Table 19).

Table 19.

Participants' Responses about Whether It Is Important for GT Learners to Have Teachers Trained in Strategies to Teach Them

Response	Frequency (n = 142)
Yes	137
Somewhat	3
No	2

Of those five participants answering "No" or "Somewhat," three answered with inclusion in mind. Respondent 15 wrote, "No, I think [GT learners] should be in the same classroom as everyone else. Maybe only take them out the last 10 minutes of each subject area." His concerns about inclusion were also mentioned by Respondent 70, who said, "I think it is important for teachers to be trained in all stages of academic learning levels. I don't think students should be labeled." Respondent 37 mentioned inclusion-based concerns, "[I]n my experience having another teacher and pulling kids out is not always a positive thing for the climate of the classroom or school." However, she went a step further, adding, "Sometimes students and teachers begin to think they are better than others." She was the only participant to mention any concerns about elitism in this question, but that may have been because others didn't think to mention them or were afraid of making a socially-unacceptable statement.

Participants overwhelmingly answered that yes, having teachers prepared with strategies for working with GT learners was important. Among the most common justifications for answering "Yes" were the ideas that students need to be challenged (n = 65), and teachers who are trained in teaching GT learners would be able to address GT learners' needs (n = 54). Other teacher candidates mentioned that if these students are not challenged, they become bored (n = 39). As can be seen in Table 20, 19 participants thought that general education teachers should receive training, and 18 participants asserted that GT education is important as special education is important.

Table 20.

Participants' Explanations about Whether It Is Important for GT Learners to Have Teachers Trained in Strategies to Teach Them (Mostly Justifications for Answering "Yes")

Response	Frequency[1]
Students need to be challenged.	65
If we had teachers like that, they would be able to address student needs.	54
Without challenge students become bored.	39
General education teachers need training.	19
GT education is important like special education.	18
General teachers need to be able to differentiate.	11
GT learners need specific GT teachers.	11
General education teachers should be able to teach everyone.	9
We need to create inclusive classrooms.	7
No separate GT teachers are necessary for GT learners.	3

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

Many participants showed particular insight when answering this question. Respondent 32 spoke to the idea that GT education is important: "[W]e get trained on how to teach low level students and how to make accomodations [*sic*] to them, the same thing would go towards gifted. Our classes aren't all going to be at level. I also feel it is harder to make accomodations [*sic*] for them then [*sic*] the ones that are below level." Meanwhile, Respondent 2 recognized that GT learners have different abilities and can be at very different levels: "I believe gifted and talented isnt [*sic*] a black and white category. A gifted student may exceed in only a few subjects and require some in-class differentiated instruction. Another gifted student may require different learning tools that

a teacher with 20+ students cannot provide." Respondent 43 pointed out that fair is not equal, arguing, "it wouldn't be fair to these students to not be pushed on their own level, just like their classmates are being pushed." Her comments were reiterated by Respondent 59 who wrote, "if the teacher isn't trained to help them excell [*sic*], they're going to fall behind, not be able to use their gifts for the right reasons, and won't get the challenge everyone else is." Respondent 39 also clarified that having teachers trained in strategies to help GT learners helps the educational climate in general, claiming, "The more knowledge/strategies teachers have to teach gifted students, the better for everyone involved." Finally, some participants, like Respondent 30, made a plea for more training for themselves: "I want to be trained for all types of students to have a successful classroom."

Role of schools in providing services for GT learners. Another question was similar to the previous but elicited somewhat different responses. When asked, "Should schools do more for gifted and talented learners?" 115 participants responded, "Yes," 12 said "No," 9 said "Maybe," seven said they didn't know, and two didn't respond. Participants could respond in more than one way (see Table 21).

Table 21.

Participants' Responses When Asked Whether Schools Should Do More for GT Learners

Response	Frequency[1]
Yes	115
Maybe	9
No	12
I don't know	7
No response	2

[1]Respondents could be sorted into more than one coding category. Thus, the combined total for the table will not equal 142.

To justify their responses, participants listed a variety of reasons. The most common response was "GT learners deserve a challenge" with 73 respondents indicating this sentiment. Other top responses included "Schools need to help all students" (n = 24) and "GT learners have potential" (n = 18). Results are summarized in Table 22.

Table 22.

Participants' Explanations When Asked Whether Schools Should Do More for GT Learners (Mostly Justifications for Answering "Yes")

Response	Frequency[1]
(Yes,) GT learners deserve a challenge.	73
(Yes,) Schools need to help all students.	24
(Yes,) GT learners have potential.	18
(Yes,) GT learners need help just like Special Education students do.	11
(No/Maybe not,) Schools are already doing enough.	8
We should provide inclusive options.	6
Participants list specific ways to support GT learners. (Varies)	6
GT programs are good.	3

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

The majority of participants wanted GT programs because they thought the programs helped GT learners thrive in school. Respondent 99 was one of these participants and wrote, "we need to excel these students as much as possible to keep our system the best it can be. Teaching toward the bottom will keep our system struggling." His sentiments were also expressed by Respondent 17 who asserted that GT learners "are the people who can succeed greatly and do so much more[.] I feel like we are holding them back." Respondent 9 repeated this idea enthusiastically: "We focus a lot on the mid-range student[s] and those TAG learners get bored! When they're bored, they get into trouble or they aren't learning at school!" Meanwhile, Respondent 3 worried about the long-term impacts on those GT learners not challenged in the regular classroom: "[I]f those learners are never challenged, they might struggle in college when they are in a

challenging class instead of excelling. Being challenged might be a new experience and be overwhelming."

Not everyone agreed, however. Some respondents felt schools should do more, but their reasoning was based on GT myths or possibly negative perceptions about GT learners. Respondent 55 was under the impression that GT learners have a responsibility to be peer tutors: "[S]chools should provide more opportunities for the students to help other students." Respondent 7 unintentionally showed that she was confused about how to differentiate for GT learners and what GT programs entailed. She wrote, "I feel that hav[ing] a TAG program and having those students do different work is good because if you have them do more[,] then when they go to a different grade they will be bored there because they know the stuf [*sic*] already."

Other participants expressed fears about elitism when answering this question. For example, Respondent 6 wrote, "I don't think schools should just do more for g&t [*sic*] because that['s] no fair [to] the average and resource students. The school should do something for *all*." Thus, the idea of fairness and equality was again on participants' minds. As Respondent 56 stated, "the opportunity for education should be equal for all students." Respondent 91 restated this idea, saying, "I think we need to be meeting the needs of all learners, whether disabled, gifted, or not." The root of such concerns appeared to stem from a fear that by having GT programs, other learners would suffer emotionally. Respondent 129 was divided on this question, answering, "Yes and no. I feel other children will begin to feel left out." Similarly, Respondent 84 thought schools

should do more, "but something should be in place for other students so they don't feel stuck in the role of an average or bad student."

Still others felt that schools were already doing enough for GT learners. In the words of Respondent 104, "they already have multiple classes that are advanced for them to participate in." Another perspective held that any and all increased programs should be based on the principles of inclusion. Respondent 108 argued that educators should not pull GT learners "out of class into gifted programs, but instead [offer] challenging work within their grade-level classroom." Respondent 97 was in accord: "Schools should continue to differentiate instruction and challenge students."

Finally, several participants admitted that they felt as if they didn't have enough information to answer the question; Respondent 13 described himself as "Neutral," adding, "I am not sure what is currently offered." It is possible that more students felt unsure than indicated that they did, and thus, perhaps answered without truly considering what was currently being done.

Necessity of GT programs and services. Another question that continued along the same line was, "Should we do away with gifted and talented programs and services?" As is shown in Table 23, 124 participants said "No," 12 said, "Unsure/Maybe," five said "Yes" and one did not respond.

Table 23.

Participants' Responses When Asked Whether GT Programs and Services Should Be Eliminated

Response	Frequency (n = 142)
Yes	5
Unsure/Maybe	12
No	124
No response	1

Participants justified their responses with a variety of explanations. The most common response was "GT learners need those programs to grow," with 73 participants expressing this sentiment. Other common responses, listed in Table 24, included "Students should be challenged" (n =43) and "GT learners are our future" (n =10).

Table 24.

Participants' Explanations When Asked Whether GT Programs and Services Should Be Eliminated (Mostly Justifications for Answering "No")

Response	Frequency[1]
(No,) GT learners need those programs to grow.	73
(No,) Students should be challenged.	43
(No,) GT learners are our future.	10
(No/unsure/maybe,) Programs should be reformed.	9
(No,) GT Education is important like Special Education.	8
(Yes/maybe,) We should not label students.	6
(Yes/maybe,) Students should not be pulled out of class.	5
(No,) General education teacher cannot meet every student's needs.	2

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

These explanations ranged from the very vehement, such as Respondent 76's comment, "No! Every student's needs deserved to be met! Not just students with IEPs [Individualized Education Programs]," to the very vague, like Respondent 80's, "Yes. To engage students who need specialization."

Like with the previous question, participants expressed concern about the emotional impact of labeling. Respondent 70 felt we should eliminate GT because "it promotes bias and labeling," while Respondents 22, 59, and 68 were among those urging for the label to be removed or changed. Respondent 68 suggested, "Call it 'AP' or something," Respondent 59 felt it "can 'cause harm." In the words of Respondent 22, "We don't need the labels so that Non GT students don't feel bad."

Respondent 51 also mentioned that she believed GT programs needed to be reformed: "I think [GT] is a good thing but [it] needs restructuring and teachers need more training on how to teacher [*sic*] a gifted student."

The values of inclusion were once again referenced by multiple participants in this question. Respondent 33 cautioned that GT programs were less important than in-class differentiation, "I think TAG kids can benefit both from differentiated instruction in class and sometimes maybe in an outside program but in class is most important." Respondent 20, on the other hand, explained that she was in favor of getting rid of GT programs altogether if they "seclud[e GT learners] from other students."

The responses of all participants who answered that yes, schools should eliminate GT programs and services or that maybe they should are included in Table 25.

Table 25.

Explanations from Participants Answering "Maybe/Unsure" or "Yes"

Respondent	Response	Accompanying Explanation
6	Unsure/maybe	During school hours maybe they could not pull kids out. Have a g&t program after school.
22	Unsure/maybe	We don't need the labels so that Non GT students don't feel bad.
33	Unsure/maybe	I think TAG kids can benefit both from differentiated instruction in class and sometimes maybe in an outside program but in class is most important.
37	Unsure/maybe	I am not sure. I guess it depends on the program.
45	Unsure/maybe	I think they are good if they are use[d] effectively.
68	Unsure/maybe	Rename it. Call it "AP" or something.
81	Unsure/maybe	I'm not sure.
84	Unsure/maybe	I think it can really guide a student, but also cause students to be stuck on track and never able to switch tracks.
90	Unsure/maybe	I'm not sure because I haven't see it in action from the viewpoint of an educator. I think I would like to keep it to keep achieving students interested in learning.
134	Unsure/maybe	Not the services. Students need to be challenged. I think it should be something that assists those students.
137	Unsure/maybe	I'm really not sure.
141	Unsure/maybe	It's up to the educators out there.
20	Yes	I think yes if it is secluding them from other students.
70	Yes	Yes, I think it promotes bias and labeling.
80	Yes	Yes. To engage students who need specialization.
108	Yes	Yes. It should be integrated into classrooms.
119	Yes	Yes, classroom teachers should help them suceed [*sic*].

Other participants felt that GT programs should remain to challenge GT learners and for "equality" among all learners (Respondent 50). Respondent 30 pointed out that "all students need support. This style of support is for students that are ahead of others," and Respondent 93 claimed that "[GT learners] need those programs. Otherwise the majority will either 'dumb down' to fit in or drop out of school." Furthermore, Respondent 42 felt, to get rid of GT programs "would be a disservice to a rare and special set of learners." Respondent 99 was the most vehement in his response: "HELL NO! Would you win a championship w/o bettering your starting team? TEACH TO TOP, NOT BOTTOM."

Self-Identified Gifted and Talented Status of Participants

Participants were also asked a number of questions about their personal Gifted and Talented (GT) status. These questions were asked in an effort to identify additional beliefs that preservice teachers might have about GT learners which might not be immediately evident in some of their earlier responses. It was theorized that preservice teachers censor themselves in an effort to be perceived as "politically correct" or in an effort to avoid giving a socially- or professionally- unacceptable answer. Hence, the hope was that, by asking participants to talk about their personal GT status, they would reveal beliefs or perceptions about GT learners that they might have withheld earlier.

Participants' personal GT status. The first of these questions was as follows: "Have you been identified as gifted and talented? If so, how did you find out?" In response, 46 participants stated that they had been identified as GT and 96 said they had not.

Table 26.

Participants' Responses When Asked Whether They Had Been Identified as Gifted and Talented

Response	Frequency (n =142)
Yes	46
No	96

Although there were many ways in which GT-identified preservice teachers (n=46) discovered their GT status, most said they were made aware of it when they were asked to participate in a GT program (n = 29). Other frequently cited responses are listed below in Table 27.

Table 27.

Participants' Explanations When Asked Whether They Had Been Identified as Gifted and Talented (Explanations for Answering "Yes")

Response	Frequency[1]
I participated in a pullout program.	16
I participated in a GT program (whether or not it was a pullout program was not specified).	13
I found out from test scores.	10
Teacher, guidance counselor, or other school staff told or recommended me.	5
I was identified in school.	4
We did not have GT in my school.	2

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

Participants' perception of their GT status. Participants were then asked, "If you have not been identified as gifted and talented, do you think you are or might still be gifted and talented?" Analysis of this question grew difficult as some participants who said they had been identified wrote that they personally didn't think they were GT. Other participants, who in the previous question had said that they had not been identified, wrote that this question was not applicable to them even though it was. Two preservice teachers answered this question in the previous question and so did not respond to this one. The resulting data was misleading and is summarized in Table 28.

Table 28.

Participants' Responses When Asked Whether They Thought They Were Gifted and Talented (Original Data)

Response	Frequency (n = 142)
Yes	30
N/A	40
No	44
Maybe, I'm not sure	22
No response	4

After adjustments were made to ensure the data was consistent and all participants were accounted for, Table 29 was created. Fifty participants did not think they were GT, while 90 participants thought they were or might be GT. Two participants did not respond.

Table 29.

Participants' Responses When Asked Whether They Thought They Were Gifted and Talented (After Adjustments)

Response	Frequency (n = 142)
Yes, I've been identified as GT and think I am.	44
Yes, I think I am GT.	28
I think I may be GT.	18
No, I don't think I'm GT.	50
No response	2

These findings indicate that of the 142 participants in the study, 64% felt that they were or might be GT as opposed to 35% who believed they were not and 1% who did not respond (see Figure 4).

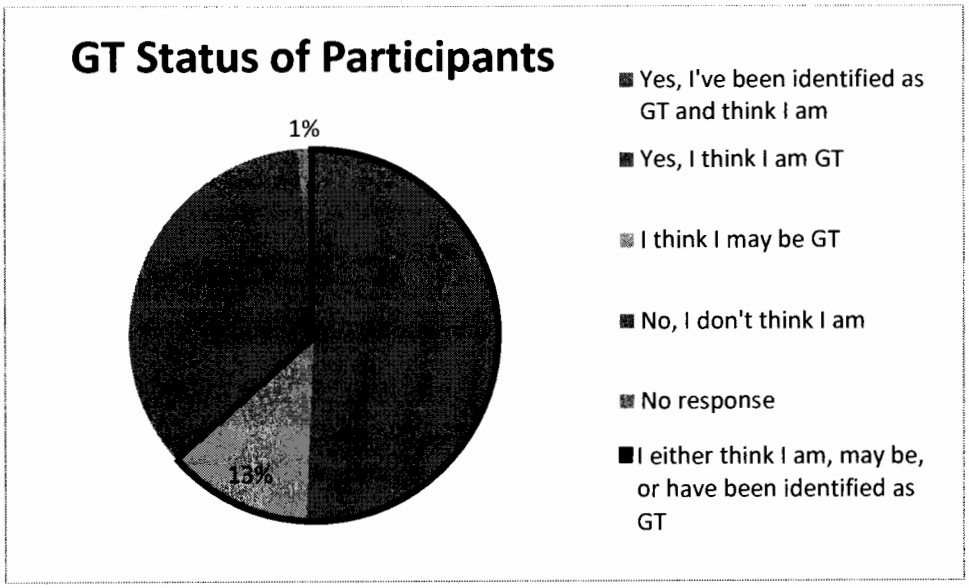

Figure 5. The Gifted and Talented Status of Participants

Participants gave several explanations for their responses. The most frequent response made by both those who did not think they were GT and those who did was "Everyone is gifted and talented" (n = 17) which is a common myth (see Table 30).

Table 30.

Participants' Explanations When Asked Whether They Thought They Were Gifted and Talented

Response	Frequency[1]
Everyone is gifted and talented.	17
School was either too difficult or just right for me.	15
I like learning or have certain traits of GT learners.	13
I think the GT label may be unfair, or I don't understand it.	13
I think I'm GT in a certain topic.	9
School is easy for me or I did well.	6
I know GT learners, and I am not like them.	6
Other people think I'm GT.	2

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

The ways they justified their "GT status" gave insight into how participants truly defined GT and what they thought about the identification process in general.

As mentioned, 17 participants made reference to or expressed variations of the "Everyone is GT" myth. Respondent 11, for example, said he was GT in his "own way. But everyone is gifted and talented in their own way." Meanwhile, Respondents 5 and 68 were among those who listed the "Everyone is GT" myth, but acknowledged that the sentiment, however socially acceptable, was likely academically inaccurate. Respondent

5 conceded that she was not GT "in sense that [the] survey I believe is expressing but I know that everyone has special gift and talents that should be shared and use[d] in a positive way." Respondent 68 stated the myth to protest the label: "Everyone is gifted and talented. If you can't tell I ~~hate~~ don't like the title."

Like Respondent 68, 12 other participants either questioned the label's accuracy, the identification process or wondered what both entailed. Those questioning the label itself included Respondent 7 who proclaimed, "I do feel I am still talented and gifted. Just because I wasn't in a class, I can still read, do math, and other things like the other kids." Among those wondering about the identification process's accuracy was Respondent 46 who thought "more students are gifted than what test scores reveal; some students aren't good test takers but are still very knowledgeable." Respondent 116 also worried that the identification process led to misidentification, writing, "they do the tests for there [*sic*] kids at such a young age its [*sic*] confusing. You see there [*sic*] kids as they age and wonder why they are gifted and talented." It is also possible that more participants were uncertain of what the label meant than the number who actually admitted their confusion. Respondent 35 was one who frankly revealed her uncertainty, offering, "I also don't think I have a good enough understanding of who is considered gifted and talented."

Some participants seemed to think that GT was just a matter of how hard a student worked, like Respondent 138 who answered, "Yes, [I think I'm GT.] I work hard and did well in school." Others, like Respondent 133, felt being GT was more about natural intelligence than effort. She wrote, "I don't know [if I'm GT]. I always did well in school, but I worked hard; It wasn't solely because of my knowledge." Respondent 20,

who had been identified as GT, stated that she did not think she was GT because "knowing that I was 'smart' in middle school led to being to [*sic*] proud to work in high school. I had to reteach myself to learn in college." Thus, opposing misperceptions that GT learners succeed "solely because of [their] knowledge" or natural ability emerged or that GT learners do not have to work for what they earn. Further evidence of this misperception was collected from participants' responses in the next question.

The third question in the questions concerning participants' GT status was "If you are gifted and talented, are you happy that you are, or do you wish you weren't?" Twenty-six participants said they were happy to be GT as opposed to the 13 participants who were either unhappy or unsure if they were happy. Twelve did not care about their status, and 91 stated that the question was not applicable to them (see Table 31). From these results, it is clear that some participants who had not been labeled GT, but who also wrote that they thought they were or might be GT did not answer this question.

Table 31.

Participants' Responses When Asked Whether They Were Happy to Be Gifted and Talented

Response	Frequency (n = 142)
I'm happy to be GT.	26
I'm not happy to be GT and wish I wasn't.	5
I'm not sure if I'm happy. I kind of wish I wasn't.	8
I don't care one way or the other.	12
N/A	91

Of those who were happy to be GT, 17 responded that the label enabled them to receive academic support, while 10 stated that being labeled hadn't made a difference in their life or schooling. As can be seen in Table 32, the most common reason that participants were unhappy to be GT was that being GT came with certain social pressures or expectations (n = 8).

Table 32.

Participants' Responses When Asked to Explain Why They Were Happy (or Not Happy) to Be Gifted and Talented

Response	Frequency[1]
It allowed me to get the help I needed.	17
The label didn't affect me or my schooling.	10
There were certain pressures socially and expectations.	8
I didn't like the pullouts.	7
Being GT makes me special.	5
Being labeled GT made me lazy.	2
I don't know any different.	2

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

Several negative perceptions similar to those discussed with the previous question emerged in responses. The idea that GT learners do not have to work for what they achieve was again repeated. Respondent 20, who in the previous question had stated that being labeled GT made her too proud to work, reiterated this sentiment, declaring, "I am happy that I am NOT gifted and talented now. It makes me work for what I want and it

gives me a sense of pride." Respondent 69, who was also labeled GT, repeated this sentiment: "I feel like because I was labeled so early on in school I got lazy somewhere along the way. Since we didn't have a TAG program I had very little to challenge me, and I knew I didn't have to try that hard at school." Respondent 29 reprised the "Everyone is GT" myth, writing, "everyone is good @ something."

Social and emotional pressures were discussed by those participants who said they were not or might not be happy about being GT. Respondent 71 summarized eight participants' responses with her statement: "I had mixed feelings about [the label]. I liked having some more challenging work to meet my education[al] needs, but I didn't like being singled out." Being singled out was also a concern for Respondent 108 who justified her push towards inclusion in previous questions by describing her own experiences, "I didn't like being pulled out of class and not being one with peers." Respondent 64 also mentioned an "extra pressure to get good grades," which was echoed by Respondent 43: "Sometimes there is a lot of pressure to always perform well."

Respondent 70 brought up concerns about the identification process in regard to her own identification: "I just think I got luck[y] with a certain set of questions."

Although several participants, like those discussed above, indicated they were unhappy or might be unhappy about being GT, more participants claimed they were happy. Respondent 8 was among those who benefitted from a GT program: "I really enjoyed being with that small group and doing activities that were challenging for me. I also enjoyed having choice in the projects I did." In addition, Respondent 99 felt it was

crucial for GT learners to be identified, writing, "I am glad I am but it is something that is good to know about one's self. If not known, life could be a struggle."

Some of those who said they were happy to be GT also expressed some of the myths about GT. Respondent 45 said, "I feel I am [GT] and I'm happy I am, I'm motivated and dedicated, makes school easier and fun." Hence, again, the misperceptions surfaced that GT learners do not have to work hard and that all GT learners are motivated. Perhaps, like Respondent 135 who wrote that the label "allowed me to achieve at my level of learning instead of something under me," Respondent 45 simply worded her response poorly.

Participants' desire to be GT. The final question about participants' GT status was as follows: "If you are not gifted and talented, do you wish you were?" Fifteen participants said that they wished they were GT, 60 said they did not, 13 did not care either way, and one said she had never thought about it. Fifty-three participants wrote this question was not applicable as they either were or thought they were GT (see Table 33).

Table 33.

Participants' Responses When Asked Whether They Wished They Were Gifted and Talented

Response	Frequency (n = 142)
Yes, I wish I was GT.	15
No, I don't wish I was GT.	60
N/A	53
I don't care one way or the other.	13
I never thought about it.	1

The top reason cited by participants for not wanting to be GT was "I like being me" (n = 44). A list of coded responses is included in Table 34.

Table 34.

Participants' Explanations When Asked Whether They Wished They Were Gifted and Talented

Response	Frequency[1]
I like being me.	44
School would be easy if I was GT.	11
I'd be special and would get challenged.	9
I've worked for what I've earned, or school already fit for me.	8
I don't like pullouts or the stigma that goes with being GT.	4
A lot would be expected of me.	4
I would better understand my GT students if I was GT.	2

[1]Respondents could be sorted into more than one coding category or may not have given an explanation for this question. Thus, the combined total for the table will not equal 142.

As the table illustrates, the myths that GT learners do not have to work for what they earn and that school is easy for them resurfaced in this question as well. Respondent 5 was among those participants: "I'm content, because nothing [has] ever come easy and I have had to work for everything and I'm proud of that." However, Respondent 6 provided a twist to that myth when she stressed, "NO, I don't feel like I am missing out [not being GT], and I feel just about anyone could be if they worked at it." In other words, Respondent 6 was operating under the assumption that GT learners are the students that work hard to do well as opposed to those with natural intelligence or ability above and beyond the norm as stated in the literature (Gifted and Talented, 2010).

Other reasons students stated for not wanting to be GT included the social stigma and academic pressures they perceived as going hand and hand with being a GT learner. In the words of Respondent 7: "I don't wish I was because I would have more work to do and have to seem smart all the time in every subject." Respondent 51 also felt this way, writing that GT "was almost a label that made you 'weird' in the eyes of your classmates."

Some respondents rejected the label itself. Respondent 88 claimed, "I am gifted and talented just not in school." In line with this idea, Respondent 59 wrote, "I like how I am, [and] I don't need to be labeled any differently to feel smarter." Respondent 103 felt similarly, "I enjoy who I am and donot [*sic*] need to be labeled as TAG to make me feel better." This idea was repeated by Respondent 116 who claimed that he didn't "care either way. I can accomplish things w/out a label that was chosen a long time ago," while Respondent 119 respondent adamantly, "NO, I don't want to be labeled."

Elitism was listed as a concern by Respondent 129 for why she did not want to be GT: "I feel like gifted and talented students in my grade when I was younger always thought they were better than everybody else." Respondent 133 cited a sibling rivalry for her feelings: "I used to [want to be GT] because my older sister was, and I wanted to be better than her."

However, most students who said they did not wish to be GT did so because they were "happy just the way [they were]" (Respondent 11). Respondent 125 explained, "I have learned so much the way I am, that I wouldn't want to compromise that at this point in my life." Respondent 123 phrased this differently stating, "NO, I am happy with who I am and I want all my students to feel that way."

Discussion

Summary of Major Themes

The results revealed a number of overlapping ideas. Commonly occurring codes were combined and summarized in four related themes: comments regarding (1) characteristics of GT learners, (2) inclusion, (3) elitism, and (4) participants' readiness to teach GT learners.

Characteristics of GT learners. Participants tended to agree on several characteristics of GT learners, and so a composite GT learner, as described by participants, emerged. Unsurprisingly, participants frequently reported that a GT learner was someone who was academically advanced. This idea, which is supported in the state definition of a GT learner, was mentioned 253 times overall, with some participants

repeating the idea and some not mentioning it at all. Since this characteristic was in line with both the state definition and the literature, it was reassuring to see it cited; most participants at least had a general idea of what a GT learner was. Yet, in spite of this encouraging finding, other findings were less promising. Three participants thought that GT learners were the learners who required Special education. Their surveys could not be used in this study.

Other frequently cited characteristics included the beliefs that GT learners are quick or abstract thinkers (51 times), are bored in the regular classroom (42 times), and excel in certain or multiple subject areas (42 times).

Yet, among those commonly mentioned characteristics was "GT learners are motivated to learn" (mentioned 88 times) which is a generalization. Students do not have to be motivated to learn to be GT learners. Since this was a frequent response, survey results would indicate that while participants may have had a profile of a GT learner in mind, the profile was likely vague and a patchwork of both facts and misperceptions.

The ambiguity of and misperceptions in their personal definitions of GT learners became evident when participants disagreed on characteristics. For instance, some participants argued that GT was a category based on natural ability and intelligence. To this end, they claimed that GT learners did not have to work for what they earned and that school was easy for them. On the other hand, some participants believed that GT was based on effort. If any student worked hard enough, these participants contended, he or she could become GT. Furthermore, participants could not agree whether being GT made a learner socially different in positive or negative way.

Inclusion. Many participants referred to the concept of inclusion, but these preservice teachers seemed uncertain about the practicality of the philosophy. While eager to differentiate (this concept was referenced 115 times overall), their comments showed that they were unsure of how to do so; participants often wrote statements like, "Differentiate instruction," but rarely expanded on their responses. Those participants who did provide more explicit methods referred to peer tutoring, a strategy which goes against the literature (Akers, 1997). Keeping GT learners occupied in the inclusive classroom was also a concern. Some participants advocated extra work "to keep [GT learners] busy" (Respondent 25), while others clarified that GT learners should be provided with challenging material and not given extra work. These concerns may stem from an uncertainty about how to effectively teach GT learners.

Furthermore, the desire for an inclusive classroom also incited some fears about the GT identification process and labeling in general. Several participants questioned whether the identification process was valid. These students were operating under the assumption that GT learners are identified solely using exams. Others also stated the "Everyone is GT" myth, questioning whether identification was truly possible when all students had gifts and talents. To this end, they worried that by labeling some students as GT, those students not labeled would be hurt emotionally and feel intellectually inferior. Yet, preservice teachers' concerns about the dangers of labeling didn't pertain only to those not identified as GT. Some participants discussed childhood experiences where they stated that being labeled GT had given their identified peers a social stigma and put pressure on them to get good grades and always seem smart. Faced with these perceived

dangers, some participants urged for the program to be reformed or for the label's definition to be clarified. These participants often cited their own uncertainty about what the label meant.

Elitism. The concerns about creating an inclusive classroom raised other fears. Although not a frequent code, a subset of participants expressed beliefs about GT education being elitist. They theorized that GT learners had attitudes and superiority complexes toward their non-GT classmates. Other participants wrote to the contrary, defending GT education. These participants asserted that fair is not equal; when everyone has the opportunity to be challenged in school, then all students are receiving a fair education. This idea, that GT learners need to be challenged, was emphasized and mentioned 403 times overall. In line with this, teacher candidates recognized that GT learners need programs or services to help them succeed (mentioned 73 times), that GT education is important like special education (mentioned 29 times), and that schools need to help all learners (mentioned 24 times).

Participants' readiness to teach GT learners. Many participants (51%) did not feel that they were ready to teach GT learners. Of those respondents student teaching during the Fall 2013 semester, only 24% indicated that they felt prepared to teach GT learners. Twenty-two percent stated that they felt somewhat prepared, while 5% indicated they were not yet prepared, 1% were unsure, and 48% asserted that they were not ready to teach GT learners. This uncertainty may have been a result of what they perceived to be insufficient coursework and experience with GT learners.

When respondents specified their fears, they stated that they were worried about being able to challenge their GT learners and were thus afraid of failing their students. Several mentioned that they wanted more training in the topic.

Limitations

Since this survey is intended to analyze the beliefs of UNI preservice teachers, the results may not be generalizable to preservice teachers at large. Additionally, these results may only apply to students in their last few years at UNI. The Iowa State Legislature has recently made changes to the requirements to obtain teacher licensure, and, as a result, students graduating by the year 2015 are required to take new content courses. However, none of the new courses specifically address teaching GT learners, so the survey results may be applicable regardless. The UNI College of Education is currently in also the process of approving an undergraduate endorsement that would train preservice educators strategies to teach GT learners. Thus, for those preservice teachers who opt to pursue the endorsement, these results would likely not apply in the future.

Finally, as some participants admitted they were not sure what GT meant and three other participants completed the survey about special education instead of GT education, it is possible that participants responded vaguely to cover their confusion about the survey's subject matter.

Implications

Considering the wealth of information this study revealed, additional research on the topic is advised. The beliefs of preservice teachers regarding GT learners have not

been widely studied, so any additional studies may benefit the broader teacher education community.

With regard to implications at UNI, it would seem that the university needs to reexamine its teacher education program. The university surveyed by Berman et al. (2012) offered one course about Gifted and Talented (GT) learners, yet the researchers found that:

> [O]ne course focusing on the nature and needs of GT learners in a general teacher education program is woefully lacking in providing awareness about the nature and needs of GT learners in classroom settings. Our preservice students were just beginning to gain a critical perspective about their own beliefs when our course experience together ended. (p. 24)

Due to their conclusion, a major anticipated finding for this study was that UNI preservice teachers might likely hold misconceptions about GT learners, since UNI does not offer a single undergraduate class which specifically teaches student how to meet the needs of GT learners. This anticipated result was found, and so this research may provide evidence for the College of Education to justify additional instruction for preservice educators about teaching GT learners.

Overall, the results from this survey would indicate that preservice teachers at UNI require additional instruction on meeting the needs of GT learners.

CHAPTER 5

CONCLUSION

The University of Northern Iowa prides itself on its teacher education program, yet the results of this survey would indicate that its preservice teachers are going out into the field with serious gaps in their knowledge.

As was stated in the Templeton National Report on Acceleration, *A Nation Deceived: How Schools Hold Back America's Brightest Students*, "America's school system keeps bright students in line by forcing them to learn in a lock-step manner with their classmates" (Colangelo et al., 2004, p. 1). It may be asked whether UNI is preparing its teacher candidates to challenge Gifted and Talented (GT) learners, or if the university is sending them off without the skills they need to teach the diverse learners they will encounter in their classrooms. Should America's GT learners be forced to learn in that same "lock-step manner" or should they be challenged to become the best they can become?

For this researcher, this is an easy choice. UNI needs to review its teacher preparation program to provide preservice educators with training in the nature and needs of GT learners.

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APPENDIX A

Questionnaire

Questionnaire

Key
New question **Question reworded from Berman et al.'s original** *Question based on one that Berman et al. survey participants felt should have been asked but wasn't*

Survey about Gifted and Talented Education

What is your gender?

- ☐ Male
- ☐ Female

What is your major? (Check more than one if you have multiple majors)

- ☐ Early Childhood
- ☐ Elementary Education
- ☐ Middle Level Education
- ☐ Secondary Education
- ☐ Other: (Please specify) _____

How many semesters do you have left before you student teach? (Please include this semester. For example, if you are student teaching Spring 2014, you would mark two.)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4 or more

Have you had any coursework in teaching gifted and talented children? Explain.

Have you had any experiences working with gifted and talented children? Explain.

When someone talks about a gifted and talented learner, what does this mean to you?

List five characteristics of a gifted and talented child.

Do you think it is important for gifted and talented students to have teachers trained in strategies to teach gifted and talented? Explain.

What do you think would be the best part of working with gifted and talented learners?

What do you think would be the most difficult part of working with gifted and talented learners?

Do you feel prepared to meet the needs of gifted learners? Why or why not?

Should schools do more for gifted and talented learners? Why or why not?

As an educator, what's the best thing you can do for gifted and talented learners in your classroom?

Have you been identified as gifted and talented? If so, how did you find this out?

If you have not been identified as gifted and talented, do you think you are or might still be gifted and talented? Why?

If you are gifted and talented, are you happy that you are or do you wish you weren't? Why?

If you are not gifted and talented, do you wish you were? Why or why not?

Should we do away with gifted and talented programs and services? Why or why not?

Is there a question about the gifted and talented you think should have been asked but wasn't in this survey?

APPENDIX B

IRB Approval Letter

Office of Sponsored Programs

University of Northern Iowa

Human Participants Review Committee
UNI Institutional Review Board (IRB)
213 East Bartlett Hall

Caitlyn Reighley
Curriculum & Instruction
c/o Jean Schneider
0606

Re: IRB 12-0142

Dear Ms. Reighley:

Your study, **Preservice Teachers Perceptions of Gifted Learners and Gifted Education,** has been approved by the UNI IRB effective **1/18/13**, following an Expedited review of your application performed by **IRB member Todd Evans, Ph.D.** You may begin enrolling participants in your study.

Modifications: If you need to make changes to your study procedures, samples, or sites, you must request approval of the change before continuing with the research. Changes requiring approval are those that may increase the social, emotional, physical, legal, or privacy risks to participants. Your request may be sent to me by mail or email.

Problems and Adverse Events: If during the study you observe any problems or events pertaining to participation in your study that are *serious* and *unexpected* (e.g., you did not include them in your IRB materials as a potential risk), you must report this to the IRB within 10 days. Examples include unexpected injury or emotional stress, missteps in the consent documentation, or breaches of confidentiality. You may send this information to me by mail or email.

Expiration Date: Your study **approval will expire on 1/18/14**. Beyond that, you may not recruit participants or collect data without continuing approval. We will email you an Annual Renewal/Update form about 4-6 weeks before your expiration date, or you can download it from our website. You are responsible for seeking continuing approval before your expiration date *whether you receive a reminder or not.* If your approval lapses, you will need to submit a new application for review.

Closure: If you complete your project before the expiration date, or it ends for other reasons, please download and submit the IRB Project Renewal/Closure form and submit in order to close our your protocol file. It is especially important to do this if you are a student and planning to leave campus at the end of the academic year. Advisors are encouraged to monitor that this occurs.

Forms: Information and all IRB forms are available online at http://www.uni.edu/osp/protection-human-research-participants.

If you have any questions about Human Participants Review policies or procedures, please contact me at 319.273.6148 or anita.gordon@uni.edu. Best wishes for your project success.

Sincerely,

Anita M. Gordon

Anita M. Gordon, Ph.D.
IRB Administrator

cc: Jean Schneider, Audrey Rule, Co-Investigators