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*University of Central Florida*



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AN EXAMINATION OF THE QUALITY AND DEVELOPMENT  
OF EDUCATIONAL PLANS FOR GIFTED STUDENTS

by

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A dissertation submitted in partial fulfillment of the requirements  
for the degree of Doctor of Education  
in the Department of Educational Leadership and Higher Education  
in the College of Community Innovation and Education  
at the University of Central Florida  
Orlando, Florida

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## ABSTRACT

This two-phase mixed-methods study applied a researcher-created instrument (Education Plan Quality Assessment) to extant documents created by teachers in a single central Florida school district. A true random sample of 337 student educational plans was drawn from a gifted population of 2,370 students. A snowball sample, which utilized the student sample to recruit a teacher sample, was created from teachers who worked on the plans and those teachers were contacted to complete the *Opinions about the Gifted and their Education* (OGE) opinionnaire which provided teacher opinion scores related to giftedness. Teachers were surveyed as to their opinions of giftedness to examine the relationship between teacher opinions towards giftedness and the quality of the educational plans they produce. The Educational Plan Quality Assessment (EPQA) was created and implemented to review the quality of educational plans in a sample of 337 educational plans. Relational and differential analyses were run between the quality scores of the educational plans and the teacher opinion scores. No significant association was found between the quality of plans produced and the opinions towards gifted education the teacher held for the overall sample, however, the relationship between the two scores was found to be moderated by whether the teacher held a gifted endorsement, and the number of years spent teaching gifted students. The findings were discussed from a post-positivist lens and recommendations for future research were provided.

**Keywords:** Educational Plan Quality Assessment, Opinions about the Gifted and their Education, individual educational planning, goal-setting, quality and development of educational plans, teacher beliefs, gifted

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## LIST OF ACRONYMS

ANOVA	Analysis of Variance
DMGT	Differentiated Model of Giftedness and Talent
EP	Educational Plan
EPQA	Educational Plan Quality Assessment
ESE	Exceptional Student Education
ESSA	Every Student Succeeds Act
FLDOE	The Florida Department of Education
GEP	Gifted Education Plan: used synonymously with EP (see above)
GIEP	Gifted Individualized Education Plan: used synonymously with EP (see above)
GPA	Grade Point Average
IDEA	The Individuals with Disabilities Education Act
IEP	Individualized Education Plan
LEA	Local Education Agency/Authority
LEP	Limited English proficient
MANOVA	Multivariate Analysis of Variance
OGE	<i>Opinions about the Gifted and their Education</i> opinionnaire
PEER	Portal to Exceptional Education Resources
PLP	Present Levels of Performance
RCS	Resource Compliance Specialist
SES	Socio-economic status
SMART	Specific/strategic, measurable, attainable/achievable, relevant/results-based, timely/time-bound
TAP	Technical Assistance Paper: a document released by the FLDOE to aid in interpreting state rules and laws
USDA	U.S. Department of Agriculture

## CHAPTER ONE: INTRODUCTION

### Introduction

There are many definitions of giftedness. One prevalent definition sees these students as those who demonstrate outstanding levels of aptitude or competence in one or more domains which include any area of structured activity (Kautz, 2017). The state of Florida defines gifted as “one who has superior intellectual development and is capable of high performance” (Special Instructional Programs for Students who are Gifted, 2002; Turcotte, 1996). The Jacob K. Javits Gifted and Talented Students Education Act provided a national baseline in which giftedness was defined as:

Students, children or youth 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. (O’Connell Ross, 1994, para. 3).

The nature of being gifted means that these students will have specific issues they have to deal with such as asynchrony of development, overexcitabilities, affective development issues, and a need for academic rigor and novelty (Cavilla, 2016; Clark, 2007; Delisle & Galbraith, 2015; Ryan & Deci, 2000; Silverman, 1997). If children are not adequately challenged in schools, an array of potentially negative issues may occur such as underachievement, social-emotional struggles, or even potentially dropping out of school (Guilbault, 2009; Hansen & Toso, 2007; Johnsen, 2018; Renzulli & Park, 2000; Siegle, 2013). Academic rigor, optimal challenge, and effectance-promoting feedback are essential for any student to develop the intrinsic motivation needed to promote success in and out of school. Still, it is especially

important for gifted students as they may be unlikely to face challenges in the regular classroom due to the asynchrony of their development and their difference from the student norms of their grade level (Ryan & Deci, 2000; Silverman, 1997).

To address these issues, the state of Florida requires a “current educational plan (EP) for all students who are gifted” in compliance with the Individuals with Disabilities Act (Florida’s plan for K-12 gifted education, 2013; Individuals with Disabilities Education Act, 2004). The educational plan is a document modeled after the individualized education plans (IEP) that have been used with an array of special needs students across the nation for years (Ruble et al., 2010). It is an essential document because it “directs and monitors all aspects of a student’s special educational program” (Drasgow, Yell, & Rowand-Robinson, 2001, p. 359). Goals in IEPs help establish incremental, ability-based targets for special needs students that help students stay in the zone of proximal development (Eng, 2015; Grisham-Brown et al., 2002; Notari & Bricker, 1990). Since the responsibility for developing and implementing policies and procedures for gifted education rests at the local level, there is little oversight and a lack of consensus around many policies for gifted education, including the creation and implementation of education plans (Matthews & Shaunessy, 2010; National Association for Gifted Children, 2015a). This has resulted in local control having a profound impact on the range of quality of services, including education plans (Matthews & Shaunessy, 2010).

Educational goals for students are an essential aspect of schooling and have a high effect size ( $d = 0.56$ ) in helping students grow academically (Hattie, 2009). With exceptional students who have individualized education plans, written goals have been found to foster greater levels of motivation and to lead to a greater sense of self-worth as students successfully meet their goals (Johnson & Graham, 1990). Goal-setting can even help increase student engagement,

achievement, and can contribute to successful self-regulatory processes (Catlin et al., 1999; DeMink-Carthew et al., 2017; Nussbaum & Dweck, 2008). If students who are gifted do not have guidance in creating goals for their learning, they are more likely to create goals that are far below the types of accomplishments they can actually achieve (Cavilla, 2016). As such, it is important for students who are gifted to have a trained teacher help them create goals that can challenge them to achieve at levels commensurate to their ability (Cavilla, 2016; Eriksson et al., 2012).

Individual Educational Plans for non-gifted students have greater requirements than educational plans, yet the gifted education plan has only one feature that the IEP does not: namely, that it is a strengths-based document rather than a deficit-based one (Florida's plan for K-12 gifted education, 2013). While the EP is implemented with a different exceptional population of students than the IEP, this research will proceed under the assumption that effective practices in IEP development remain effective practices in EP development (Renzulli & Smith, 1981). This assumption is borne out by the fact that the state of Florida utilizes the IEP framework as grounds for the creation of gifted educational plans and considers services for students who are gifted under exceptional education programming (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016).

### Conceptual Framework

François Gagné (1995, 2000, 2008) proposed a Differentiated Model of Giftedness and Talent (DMGT) that exemplifies the purpose of educational plans; the DMGT posits a developmental process in which intrapersonal and environmental catalysts help a student transform their natural abilities, which he terms “giftedness”, into systematically developed skills that he calls “talent” (Gagné, 2000, p. 1). Gagné (2000) noted that this developmental process

was moderated by “environmental catalysts,” elements from the students’ environment that alter the nature of their development, “intrapersonal catalysts,” or physical and psychological factors that aid development, and “chance” (p. 2). As viewed within this model, the construct of the educational plan within this study functions as an environmental catalyst under the concept of provisions designed to help students appropriately focus their intrapersonal catalysts to create personal growth and thereby develop talents.

As this study sought to examine both the quality of the educational plans that were being developed in a large, urban school district in Central Florida and the attitudes the teachers who were writing the plans have towards gifted students and giftedness in general, the problem was best examined in two phases, which is sometimes needed for complex, multi-stage studies (Creswell & Clark, 2011). The primary goal of the first phase of this values-oriented study (Stufflebeam & Webster, 1980) was a content analysis of the educational plans that were being developed to determine the profoundness and prevalence of trends within the development of educational plans, a vital function of content analyses, in order to provide a knowledge-and-value base for making and defending decisions regarding the instructional decisions made around gifted students (Auster, 1956; Eđmir et al., 2017). For future research to examine the implementation of educational plans or their impact on student achievement, there must first be an analysis of the quality of the plans themselves, which this study sought to provide.

Stufflebeam and Webster (1980) posited a type of values-oriented study called the connoisseur-based study, which seeks “to describe critically, appraise, and illuminate the particular merits of a given object (p. 14).” This construct provided a useful structure to Gagné’s (2000) model of giftedness as it created a method for evaluating an individual aspect of the developmental model, a function that would have been difficult to accomplish under Gagné’s



model alone. With the connoisseur methodology, it is left up to the researcher to determine what merits or demerits distinguish one item of a particular object from another (Stufflebeam & Webster, 1980). Here, this can be defined as, *how can the quality of a single educational plan for a student who is gifted be differentiated from the plan of a different student?* If there is a difference in plans, this may impact the provisional environment in which a student's gifts develop into talents. This question was fundamental to the development of the conceptual framework of this study.

The second phase of the research looked at the relationship between the quality of the educational plan and the attitudes and opinions held by teachers about gifted students and their education. To this end, Nespor's (1985) research on teacher beliefs provided useful constructs for the analysis of education opinions on gifted education, particularly the construct of the "affective and evaluative aspect" of behavioral perceptions, which "concerns the impact of teachers' sometimes unrecognized feelings about students on the ways they treat these students" (p. 14). This construct was particularly useful because it helped reconcile teacher beliefs with the actions they conduct, which was the main thrust of this study.

As mixed-methods research is concerned with the reconciliation of the different phases of research (Creswell & Clark, 2011), so too was this study with the conceptual framework. By reconciling the affective and evaluative aspect of teacher beliefs with the Differentiated Model of Giftedness and Talent, a strong perceptual filter for analysis was constructed to overlay the structural framework of the connoisseur methodology (Gagné, 2000, 2008; Nespor, 1985; Stufflebeam & Webster, 1980). To this point, what has been described is effectively a theoretical framework. The final piece of the conceptual framework was the use of post-positivism as a lens for interpreting and constructing meaning in context, a framework for

triangulating the qualitative and quantitative methods while valuing all findings as essential components for the development of an understanding of the interaction of variables that determine the quality of an educational plan for a gifted student (Panhwar et al., 2017). The entirety of this conceptual framework is visualized in Figure 1.

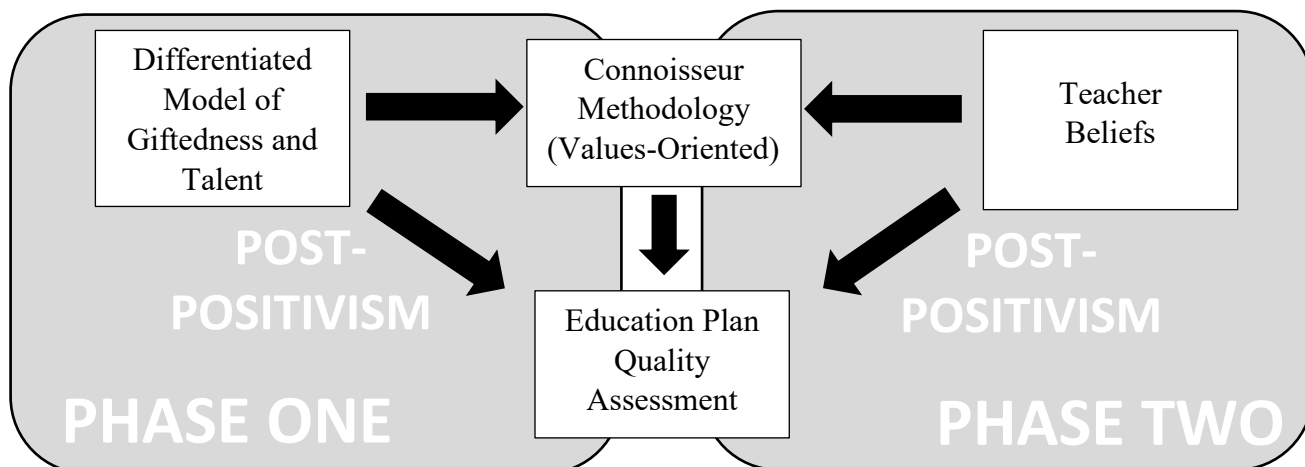


Figure 1. Conceptual Framework for a Two-Phase, Post-Positivist Analysis

### Statement of the Problem

The Florida State Plan for the Education of Gifted Students (Florida’s plan for K-12 gifted education, 2013) set a quality standard by requiring “meaningful education plans (EPs) for students with rigorous and challenging curriculum available to differentiate services for the gifted learner” (p. 3). Florida Rule 6A-6.030191 (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016) placed a series of requirements that each EP must meet in order to ensure that the gifted students are receiving services that meet their needs. However, there was a problem in determining whether the educational plans being written met the state standards of being meaningful, rigorous, and providing challenge. Moreover, though there were multiple tools for assessing the quality of individualized education plans for students

with disabilities, there were few extant tools for assessing the quality of educational plans for students who are gifted and they did not evaluate meaningfulness or rigor of the plans. The Florida Department of Education has provided a single tool, but it only provides a *satisfactory* or *exemplary* example for seven areas of educational plans required by the Florida Administrative Code and does not provide specific critique, targeted support, or an overall score of quality, which reduces its utility in making instructional decisions or evaluating the quality of educational plans (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016; Resource Guide for the Education of Gifted Students in Florida, 2017).

This problem has negatively impacted the well-being of gifted students as plans for student education are often fraught with problems, such as a lack of adequate teacher training, poorly developed team processes, and the plans being developed solely for compliance requirements (Drasgow et al., 2001; Eriksson et al., 2012). A possible cause of this problem is the opinions that the teachers hold about students who are gifted and their education (Gagné, 2018). There was a need to research this problem as the lack of proper development of educational plans meant that these advanced students potentially received educational plans that afforded little-to-no growth, left students unchallenged in school, and left the student “at greater risk for specific kinds of social-emotional difficulties” (Guilbault & Kane, 2017, p. 1) that result from a lack of challenge. A study that investigated the quality of the educational plans being developed for students who are gifted by systematically reviewing and assessing these documents provided an effective measure for analyzing the impact teacher opinions of students who are gifted have on plan development.

### Purpose of the Study

The purpose of this study was to analyze the quality of the educational plans being developed for students in one Florida school district. To that end, the study investigated what factors within the plan impacted the quality of the educational plans. District, school, teacher, and student characteristic variables were examined to determine the extent of their effects on the quality of educational plan development. Teacher attitudes and opinions about the education and nature of giftedness were investigated to determine what relationship they held with the quality of the educational plans. This information was intended to be used to inform administrators and policymakers about the aspects of a high-quality educational plan to aid the creation of a provisional environment in which high-quality educational plans are or continue to be developed for the benefit of all gifted students.

### Significance of the Study

This study was significant for four reasons. First, it led to the creation of a tool that can be utilized to examine the quality of educational plans for students who are gifted. The various methods of development for the tool, including cognitive labs, pilot studies, and input from qualified candidates, led to a tool with high reliability, which generated utility for the evaluation of gifted programs throughout Florida. This is a small, but significant, step in evaluating the effectiveness in gifted and talented education programs, which historically are not evaluated with much fidelity (Bourgeois, 2012, p. 22).

Second, this study provided a criterion reference for education plan quality that can be used as a baseline for other school districts in Florida or for states that have similar educational plan requirements. Given the procedural structure in place for the development of the cut scores, the Educational Plan Quality Assessment should find utility in future studies.

Third, it provided a view of teacher attitudes and opinions about the nature and education of their gifted students for an urban school district in Florida. Since each Florida teacher who creates educational plans is required to hold or to be actively working towards a 300-hour endorsement in the education of gifted students, this data set will be useful for future studies that examine perceptions about gifted students held by gifted endorsed teachers (Specialization requirements for the gifted endorsement—Academic class beginning July 1, 1992, 1992).

Finally, the comparison of teacher attitudes and opinions about the nature and education of students who are gifted with the quality of educational plans being developed by these teachers provided data about how the attitudes relate to educational plan development. This data may be useful to those who educate teachers via the Florida gifted endorsement courses for further improving their practice to help teachers develop attitudes that will increase the quality of the educational plans (Eriksson et al., 2012; Specialization requirements for the gifted endorsement—Academic class beginning July 1, 1992, 1992). It may also be of use to educational leaders at the state, district, and school level in the development of professional development around giftedness.

#### Definition of Terms

The following terms were included to clarify the terminology used throughout the entirety of this study:

6A – 6.030191 F.A.C. – The rule in the Florida Administrative Code that puts forward requirements for educational plans for students who are gifted and establishes expectations (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016).

Acceleration – Acceleration describes an array of measures for moving a student through the normal educational program at a faster rate than the general education student (Colangelo et al., 2004, pp. 77–86).

Affective Development – Social-emotional growth that happens parallel to cognitive and physical development (Cavilla, 2016). Without consistent affective development (which may happen due to gifted student asynchrony of development) gifted students are more likely to develop disorders such as dysfunctional perfectionism or become underachievers (Folsom, 2005; Neumeister, 2007)

Articulation – Defined as the “effective and efficient progression and transfer of students,” particularly between different school sites (Florida Department of Education, 2019).

Asynchrony of Development – An “unevenness of development” in a gifted child that leaves parts of their development out of sync from the norm (Silverman, 1997, p. 39). While a student may be asynchronous in the development of one area, such as mathematical prowess, they may not be out of sync with the norm in other areas, such as emotional needs (Silverman, 1997).

Consultation – Under the Florida K-12 Gifted Plan, consultation is defined as a teacher meeting “regularly with students and/or teachers to plan, implement and monitor instructional alternatives designed to ensure that the student who is gifted achieves successful progress (*Resource Guide for the Education of Gifted Students in Florida*, 2017).

Differentiation – Defined as the teacher act of being ready to engage students in instruction through different approaches to learning, by appealing to a range of interests,

and by using varied rates of instruction along with varied degrees of complexity and differing support systems to help students move towards and beyond designated content goals (Tomlinson, 2014).

Differentiated Curriculum – The Resource Guide for the Education of Gifted Students in Florida (2017) defines a differentiated curriculum as “a means of meeting the specific needs of the learner.” Going beyond this vague definition, they provide an array of requirements for the program to qualify as differentiated curriculum, including:

- Teachers being trained specifically in effective strategies to provide differentiation.
- Indicating on the lesson plan as to how specifically the teacher is differentiating.
- Using student-specific goals from educational plans to determine the necessary differentiation.
- A basic curriculum that has been modified to meet the needs of the specific gifted learner.
- Allowing sufficient time for self-directed learning.
- Making connections across topics, disciplines, events, and cultures.

Educational Plan – The state of Florida defines an educational plan “as a plan written for each student who is identified as eligible for gifted education services . . . [that] describes the student’s educational needs based on the strengths of the student and the services that will be provided to supplement and build on the basic academic state standards to ensure that the student continues to make gains (*Resource Guide for the Education of Gifted Students in Florida*, 2017, p. 15). Depending on the state and researcher, these may also

be referred to as gifted education plans, gifted individual education plans, individual education plans for students who are gifted, or simply individual education plans.

Environmental Catalysts – The environment a student is in influences their development at a macroscopic level and exerts both positive and negative influences on a student's development of talent (Gagné, 2000).

Giftedness – While there are many definitions of giftedness, the one François Gagné (2015) used in his developmental model of giftedness and talent is as a designation for the possession and use of untrained and spontaneously expressed outstanding natural abilities or aptitudes, in at least one ability domain, to a degree that places an individual in at least among the top 10 % of age peers.

Gifted Endorsement – In the state of Florida, teachers of students who are gifted are required to complete a 300-hour professional learning pathway that provides education in the nature and needs of gifted students, the development of curriculum for students who are gifted, guidance and counseling for the gifted, special populations of gifted students, and the theory of creativity (Florida's plan for K-12 gifted education, 2013).

IDEA – The Individuals with Disabilities Act, stemming from Public Law 94-142, which set the foundation for the requirements for the education of exceptional students (Hedbring & Rubenzer, 1979).

IDEA Model – Used in reference to states, such as Florida, that provide services to students who are gifted through their exceptional education models and mandate IEPs or EP for these students (Zirkel, 2016).

Individualized Education Plan – An individualized document created by teachers, parents, school administrators, students, and related services personnel working together



to create a plan with measurable, actionable goals for improving the educational results for a student with disabilities (U.S. Department of Education, 2007).

Low Socio-Economic Status – For the purposes of this study, this is defined as students who qualify to receive free-or-reduced lunch via the USDA choice program.

Overexcitability – Higher than average sensitivity to receptors allowing gifted students to see reality in a different, stronger, and more multisided manner (Dabrowski, 1972, p. 7).

Portal to Exceptional Education Resources – PEER is a system utilized in multiple school districts in Florida for creating, managing, storing, and evaluating EPs and IEPs.

Provisions – An aspect of environmental catalysts in which systematic forms of interventions are provided to foster or hinder the talent development process (Gagné, 2000).

SMART Goals - Specific/strategic, measurable, attainable/achievable, relevant/results-based, timely/time-bound goals (Doran, 1981; Ross et al., 2016)

Talent – While there are many definitions of talent, the one Gagné (2015) used in his developmental model of giftedness and talent is as a designation for the outstanding mastery of systematically developed competencies (knowledge and skills) in at least one field of human activity to a degree that places an individual at least among the top 10% of learning peers.

Underachievement – The discrepancy between expected and actual performance (Mofield & Parker Peters, 2019).

Underrepresented Populations – For the purposes of this gifted identification under Plan B, the State of Florida defines underrepresented populations as those who are limited

English proficient (LEP) or who are from a low socio-economic (SES) status family (Special Instructional Programs For Students who are Gifted, 2002).

### Research Questions

The research questions were selected based on a review of the literature and the needs established by the nature of the problem, then refined by the conceptual framework. To that end, the following research questions guided this study:

1. In what ways and to what extent do educational plans demonstrate quality and reflect established norms and regulations for educational plans?
2. What results emerge from qualitative analysis of educational plans and can trends in the development of gifted educational plans be identified?
3. In what ways and to what extent are attitudes and opinions about the nature and education of students who are gifted associated with the quality of an educational plan?
4. In what ways, if any, is the relationship between the EP quality score and teacher attitudes and opinions moderated by the student and teacher characteristics?
  - a. How do moderator variables such as student grade level, school level (elementary, middle, high), school type (charter or non-charter), gender, ELL status, test scores, student ethnicity, socio-economic status, number of endorsed teachers, and number of educational plan writers affect the education plan quality score?

### Assumptions

There were multiple assumptions about the study that may impact the validity of the findings, including:

1. The educational plans were written by teachers who had at least some understanding of the nature and needs of gifted students and the requirements of the educational plan due

to the Florida state requirement that teachers of the gifted take 300 hours of coursework in a gifted endorsement program that covers the following areas: (a) the nature and needs of gifted students, (b) guidance of gifted students, (c) the theory of creativity, (d) special populations of gifted students, and (e) designing curriculum for gifted students (Specialization requirements for the gifted endorsement—Academic class beginning July 1, 1992, 1992).

2. The educational plans contained accurate and true information. It was assumed that all participants listed on the signature sheet were in attendance at the educational plan meeting, participated in the creation of the plan and goals, and were helped to interpret the instructional implications of the plan.
3. The plans and goals were developed and written by the EP committee and not by a single member of the committee at a date before the meeting.
4. Effective practices for the development of individual educational plans are also effective for the development of gifted educational plans (Renzulli & Smith, 1981).
5. The responses participants gave on the opinionnaire were true and representative of their actual attitudes towards the education of gifted. Given that the teachers being sampled are all from a single Central Florida school district, there was a possibility for bias from the “letterhead effect” in which the research affiliation may have had an epistemic influence of the collection of results wherein teachers falsely reported, knowingly or unknowingly, their beliefs (McCoach & Siegle, 2007). Controls for this were made through the methodology.

### Delimitations

There are multiple delimitations that may limit the generalizability of this study or otherwise preclude the results from being widely applicable to other districts or states:

1. The tool developed for this study was built using Florida Administrative Code Rule 6A-6.030191 (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016) and therefore only examined the rules surrounding educational plan requirements for gifted students in Florida. While the tool may be applicable to other states' requirements, it was outside the scope of this study to develop a tool that can be utilized in every state that requires educational plans for gifted students.
2. Section 7(a – b) of Rule 6A-6.030191 states the requirements of the teachers of the student in implementing the educational plan, including that (a) the EP must be in effect before the student receives their specifically designed instruction, that (b) the EP shall be accessible to all teachers who are responsible for implementation, and that (c) each teacher be informed of their responsibilities related to the study (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016). The manner in which the educational plan is implemented was of relevance to this study but beyond the scope of the research.
3. Multiple parents in the examined county do not speak English as their primary language and may, therefore, be less likely to share their concerns on their student's educational needs. This may have affected EP quality scores on item #A.3 (see Appendix A).
4. The examination sample for educational plans was limited to only a single school district out of Florida's 67 school districts. While the sample was large enough to make assumptions for the remaining plans within this school district, it may not be

generalizable to other school districts in Florida without further research (Fraenkel et al., 2015).

5. The criteria for evaluating the quality of the educational plans were developed by the researcher. While every effort was taken to ensure it was a reliable tool, including cognitive labs, multiple pilot sessions, and tests for inter-rater reliability, the potential for bias existed in the research during the initial item creation as decisions about what to include and exclude from the tool had to be made.
6. The State of Florida requires that school districts have a measure for identifying students from underrepresented populations known as *Plan B* (Special Instructional Programs for Students who are Gifted, 2002). It was outside the scope of this research to determine whether or not the students qualified via a plan A or plan B pathway when their educational plans were first drafted.
7. This study did not examine the link between education plan quality and student achievement.

### Limitations

There were several limitations to the study, including:

1. The usage of a cross-sectional survey as a tool was susceptible to nonresponse and individual bias. Potential threats to validity may have arisen from total nonresponse, though partial non-responses were still utilized for the tool, though with reduced reliability.
2. The research methodologies did not provide context for teacher opinions about giftedness, rather the teacher opinions provided context for the quality of the educational plan.

3. Educational plans are designed to be long-lived documents and therefore the content in the analysis may have been created by subjects who were no longer accessible by this research.
4. Due to the number of moderator variables, each variable had to be individually examined for extraneousness to determine the ways and quantities that they moderated the results. As such, it was difficult to create a holistic picture of how each moderator variable explained part of the variance and relation between education plan quality and teacher opinions.
5. The responses to the survey data limited the analysis in some ways when the response rates were skewed in one direction or another. While the analysis still occurred, note had to be made when the skewness of the data limited the generalizability of the results.

#### Organization of the Study

Chapter 1 will introduce the problem to be studied and provide an overview of the research to be conducted, including relevant methodologies and data analysis methods. Chapter 2 will present a comprehensive review of the literature related to attitudes towards the education of gifted students and establish a research background for examining the educational plans for students who are gifted, which is an area where little current research exists. Chapter 3 will contain the implementation of the methodological techniques and relevant data collected. Chapter 4 will provide a thorough analysis of the data collected and a reconciliation of the two methodologies implemented. Chapter 5 will summarize the findings of the current study, discuss the implications for practice that result from the analysis, and make recommendations for future research in the area of educational plans for students who are gifted.

## Summary

This study sought to understand the relationship between teacher attitudes towards giftedness and the quality of the educational plan that they generate for their students. To that end, an instrument was developed to assess the quality of educational plans and utilized in conjunction with Gagné and Nadeau's (1991) *Opinions about the Gifted and their Education* instrument. The results of this study may be useful for multiple stakeholders in that states that require educational plans for students who are gifted, including teachers, principals, district leaders, and state departments of education.

## CHAPTER TWO: LITERATURE REVIEW

Given the conceptual framework, a full review of the literature took place across several dimensions: educational plans for students who are gifted, measurement and assessment of individual education plans, the value of goal-setting, strengths-based education, the nature of teacher beliefs, attitudes and opinions regarding the gifted and their education, and the differentiated model of giftedness and talent. An array of reviews of the literature were completed for each of the dimensions. Searches were conducted in the Education Resources Information Center (ERIC), SAGE Journals, and Education Source databases. During each search, all articles found were reviewed and examined to identify relation to the target constructs of the search. Multiple searches were delimited for more recent publication dates and accuracy of results. Every article in the search that bore some relation to the target construct has its abstract reviewed, and articles that overlapped directly with the target construct were read in full.

A search for literature around educational plans for students who are gifted was conducted using the terms “Gifted AND Education Plan” between 2008 and 2018. Delimiting the years led to 123 resources, which were found and reviewed. A majority of the articles focused on either designing lesson plans for classrooms with students who are gifted or methods for identifying students who are gifted. While these are critical areas of study, they are not associated with the current research. Out of the 123 initial articles, 30 articles were identified as potentially dealing with educational plans for students who are gifted.

A second search was conducted using the terms “Gifted AND Individualized Education Plan” and yielded 21 results between 2008 and 2018. The date delimiters of the search were expanded to 1998 to 2018, which yielded 45 results on a re-search. Of the 45 articles, 12 articles



were not identified in the first search and also dealt with content aligned with the research. A search of “Gifted AND IEP” yielded 14 results, three of which were new. Searching the term “gifted education plan” added four articles. In total, 49 articles were identified for review in relation to educational plans for students who are gifted. While 31 of the pieces of literature identified in the search were utilized in this research review, few articles and dissertations directly mentioned gifted educational plans, highlighting the need for further research in this area. Multiple articles were removed due to dealing with district-level planning for gifted education rather than individual student gifted education plans.

Once the literature around educational plans for students who are gifted had been reviewed, it became clear that there was a dearth of research in the area. Given the conceptual framework was built around Gagné’s (2015) Differentiated Model of Giftedness and Talent and a post-positivist lens was being utilized to analyze the literature, a snowball search around the aspects of talent development as they relate student growth was conducted to further explore the concept of how giftedness can be developed into talents using gifted educational plans. A further 18 articles were reviewed in order to develop a full understanding of the DMGT, which allowed for a fuller understanding of talent development and the role of the educational plan in the school environment. From the literature in these two searches, the literature was divided into categories for (a) natural abilities, (b) developmental processes, (c) environmental catalysts, (d) intrapersonal catalysts, (e) talents, (f) goal-setting, and (g) strength-based approaches.

Given that there was little literature around educational plans for gifted students and that the majority of identified literature revolved around the nature of giftedness, there was similarly little writing about the assessment and quality of these plans. Thus, a search for literature around measurement and assessment of traditional individual education plans was conducted in order to

understand the common methodologies utilized for analyzing student plans. The post-positivist lens was particularly useful here in arranging the literature towards “best practice” for creating individual educational plans (Butin, 2010, p. 78). The search was conducted using the terms “assessment AND IEPs OR individual education plans OR individual education programs”, as well as “measurement and IEPs OR individual education plans OR individual education programs”. The results were not delimited by date and 37 articles were identified for review, though only 16 of the articles ultimately ended up having utility for the current study. Three extant tools for assessing and measuring the quality of IEPs (La Salle et al., 2013; Ruble et al., 2010; State Education Resource Center [SERC], 2013), and one for measuring the quality of EPs in Florida (Resource Guide for the Education of Gifted Students in Florida, 2019), were chosen from the results for item analysis, two of which were used both in the literature review and the instrumentation process.

Finally, a search for teacher beliefs about giftedness was needed in order to understand how a teacher’s opinion about gifted students may interact with the way they plan for the lessons and teach their students. After a few initial failed searches, a search was conducted using the terms “gifted AND teacher beliefs OR teacher attitudes OR teacher opinions NOT self.” Given that a robust body of research exists for the field of teacher beliefs, particularly research in Turkey, the search was delimited to articles from 2015 to 2019 where the research occurred in the United States. A total of 139 articles were identified and their abstracts reviewed to determine proximity to the target constructs. Of the 139 articles, only 21 were deemed applicable to the current research and read in full, with a snowball search for seminal articles on teacher beliefs rolling out from the literature reviews of articles in the identified body of literature.

Once all of the literature was collected, it was analyzed under a post-positivist lens, which recognizes that an empirical, absolute truth in response to a given problem will not be found, but rather that an understanding of a phenomenon can be determined by examining a problem with an array of methods to best minimize bias and best form hypotheses based on the variables (Creswell & Clark, 2011; Panhwar et al., 2017). To that end, the literature reviewed was utilized as a tool for creating an understanding of the talent development of gifted students as a problem with the educational plans as a potential solution. Thus, the review of literature was broken up in to five major sections: (a) the Historical Context of Giftedness, (b) the Differentiated Model of Giftedness and Talent, (c) Educational Plans for Students Who are Gifted, (d) Measurement and Assessment of Individualized Educational Plans, and (e) Teacher Beliefs about Giftedness. Each article was categorized either under one of these headings, or one of the relevant subheadings, and sorted into Table 1, which can be seen at the end of this chapter.

### Historical Context

Education for students outside the normal intelligence curve can be traced as far back as ancient China and the Greek classical period where cultures recognized giftedness as a way to determine and grow potential contributors to society (VanTassel-Baska, 2010). Following the creation of the first documented program of acceleration for rapid learners in St. Louis during 1862, gifted education in the United States began to develop sporadically in larger cities such as San Diego, New York, and Chicago near the start of the 20th century (Guilbault, 2009; Kulik & Kulik, 1992). Research around gifted education centered on proving giftedness as an extant construct and determining whether it was a hereditary trait (Feldhusen, 1985). Though Terman argued in 1925 that students who are gifted were neglected in school, gifted education did not grow to engage the public eye until 1957 when Russia launched the *Sputnik* satellite, which

generated a government and military interest in closing the achievement gap and nurturing gifted learners (Feldhusen, 1985; Guilbault, 2009; VanTassel-Baska, 2010). Ever since, interest in funding and specifically educating gifted learners has waxed and waned depending on public interests and perceptions (Guilbault, 2009; Kulik & Kulik, 1992; Logan, 2011).

The state of Florida first authorized a mandate for the special education of students who are gifted in 1977 with the implementation of Rule 6A-6.03019 (Special instructional programs for students who are gifted, 1977). This rule defined giftedness in the state as “one who has superior intellectual development and is capable of high performance” (Special instructional programs for students who are gifted, 1977, para. 1). The rule established parameters for the identification of students who are gifted in Florida, including students from underrepresented populations, and required school districts to provide program modifications or adaptations to ensure the academic progress of these students. As with most states in the United States, identification of students relied solely on IQ scores for students (Pfeiffer, 2012). Since Florida authorized its mandate for gifted through exceptional student education, these students required individual education plans (Perkins, 1985).

In September of 2004, Florida added a requirement for students who receive services for giftedness to receive an educational plan under State Board Rule 6A-6.030191, which was updated in 2016 to clarify language around students who have individual education plans instead of educational plans (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016). This rule required that these documents be designed to delineate (a) the gifted student’s educational needs based on the student’s strengths and (b) the services that will be provided to supplement and build on the basic academic state standards to ensure that the student

continues to make academic gains (Resource Guide for the Education of Gifted Students in Florida, 2017).

According to the National Association of Gifted Children's 2015 State of the States Report, 32 states in the US have mandates for gifted and talented identification, gifted services, or both (National Association for Gifted Children, 2015, p. 13). Definitions of giftedness vary broadly from state to state, with some states, such as Florida, still requiring strict IQ tests for identification as gifted, often requiring students to score two standard deviations above the mean (Florida's plan for K-12 gifted education, 2013; National Association for Gifted Children, 2015b). Other states require a more multidimensional conceptualization of giftedness, examining concepts such as creativity, accomplishments, or potential to excellence (Renzulli, 2013; Sastre-Riba et al., 2018). Regardless of the method of identification, many researchers recognize that high intellectual ability is not a fixed trait, but rather a developmental one (Gagné, 2015; Renzulli, 2013; Sastre-Riba et al., 2018; Subotnik et al., 2011).

As of 2019, twelve states and Washington D.C. all require some form of IEP or EP for students who are gifted, as do places outside of the United States, such as Ontario, Quebec, and British Columbia (K., 2019; Zirkel, 2016). These documents provide guidance to teachers as to how to help their gifted students develop their gifts into talents (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016). States in the US that require IEPs for gifted students include Alabama, Florida, Kansas, Kentucky, Louisiana, New Mexico, North Carolina, Oklahoma, Pennsylvania, Virginia, Washington, and West Virginia (K., 2019). Some states, such as Mississippi, do not follow the IDEA Model yet still require documents similar to educational plans, such as instructional management plans, that cover some of the same areas of the EP without being tied to the IDEA (Shaunessy, 2003, p. 18; Zirkel, 2016). While each state

has differing logic for identifying gifted students and providing services, their reasoning for providing plans for gifted students generally revolves around the unique learning needs of gifted learners, providing them appropriate challenge, and ensuring that services are appropriately provided (Bice, 2015; Florida's plan for K-12 gifted education, 2013; Kansas Technical Assistance System Network, 2019; Kentucky Department of Education, 2019). Many of the states that require educational plans for students who are gifted require the plans to have features such as measurable, annual goals tied to state standards, specially-designed instruction, or programmatic acceleration (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016; Chapter 16: Special education for gifted students, 2000; Guilbault, 2009; New Mexico Public Education Department, 2011).

At the time of this study, there was no federal requirement for the identification of gifted students or for services provided to this population (VanTassel-Baska & Hubbard, 2019; Zirkel, 2016). The educational plans that students who are gifted in the state of Florida receive were legally required at the state level, though oversight for the quality of the plan was left to individual school districts (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016; Florida's plan for K-12 gifted education, 2013). Furthermore, gifted education had begun to receive increased attention as multiple states, including Florida, identified gifted as a subgroup to be watched under their Every Student Succeeds Act state plans (Kaul & Davis, 2018).

#### Theory: The Differentiated Model of Giftedness and Talent

It has long been recognized that some students learn at different paces than other students and that there is benefit to nurturing that ability (Kulik & Kulik, 1992; Renzulli, 2013). Binet believed that intelligence is highly influenced by the environment and that it can be improved

through appropriate instruction (Binet & Simon, 1908; Silverman, 1997). The stage development theory first posited by Piaget argued that learning tasks should be dependent upon a child's developmental level, though outside influences can allow a student to complete higher-level tasks (Paciotti, 2013, p. 112). Multiple researchers have since posited multiple theories about how students grow their understanding of a subject of field, usually revolving around a developmental model that looks at catalysts which encourage a child's development of talent (Baum & Novak, 2010; Gagné, 2000, 2015; Klimis & VanTassel-Baska, 2013; Pfeiffer, 2012; Subotnik et al., 2011). These theories are effectively synthesized in Gagné's (2000, 2015) Comprehensive Model of Talent Development (CMTD), which brought together his two prior theories, the Differentiated Model of Giftedness and Talent (DMGT) and the Developmental Model for Natural Abilities (DMNA). Under the comprehensive model for talent development, giftedness is viewed as "a seamless developmental process that begins with biological foundations and eventually culminates into high-level expertise" (Gagné, 2015, p. 12).

Researchers and practitioners generally differentiate between two types of giftedness: the giftedness of a young child who excels naturally, which Renzulli (2013) termed "schoolhouse giftedness" (p. 1120) and Gagné (2015) called "early emerging giftedness" (p. 15), and the giftedness of an adult who becomes a leader in their field, which Renzulli called "creative productive giftedness" (p. 1120) and Gagné referenced as "fully formed giftedness" (p. 15). The Differentiated Model of Giftedness and Talent is a theory for moving students from young potential to the realization of creative-productivity, from giftedness to talent. At the time of this study, the differentiated model of giftedness and talent was recognized as one of the most widely used conceptual models in the field of gifted education (Henderson, 2018). The theory seeks to answer the question of "what factors make a difference between those who emerge among the

talented and those who remain average?” (Gagné, 2004) One reason the model may be effective is due to the fact that “students find talent development intrinsically motivating” (Baum & Novak, 2010, p. 251). The model is a theoretical foundation for moving students from their natural abilities to fully-developed talents.

### Natural Abilities

Gagné (1995, 2000, 2004, 2015, 2018) posited that students have natural abilities that, though not innate, mature much faster in some students than in others, controlled, in part, by the individual’s genetic endowment. This concept, that some children have abilities that others do not, has been borne out by the field of gifted research at large (Baum et al., 1995; Colangelo et al., 2004; Guez et al., 2018; Kulik & Kulik, 1992; Renzulli, 2013; Tomlinson, 2014).

Neuroscientific research has found that the brain activity of gifted students is greater than the brain activity of non-gifted students while students are learning, supporting the theories that there are biological differences between these two groups (Gagné, 2015; Willis, 2007). While the identification process of gifted learners and definitions of giftedness vary from state to state, the fact that some students learn at quicker paces necessitates plans and programs that can educationally address this difference to help students develop through various methods of acceleration and enrichment (Carolyn, 2019; Colangelo et al., 2004; Guilbault & Kane, 2017; Logan, 2011).

Recognizing that some students have high intellectual abilities is an important step in the developmental model of giftedness as it allows teachers to identify the correct tools to allow students to develop their talent and manifest their potential (Sastre-Riba et al., 2018). The recognition of these differences in student ability is a cornerstone for the contention that students who are gifted need well-developed, high-quality educational plans that will aid in their



educational development. Asking gifted students to work at the general class level, especially if they already have an understanding of the learning, will not drive development (Cavilla, 2016, p. 46). While research has found that there are differences in natural abilities, the differentiated model of giftedness and talent attributes a majority of the talent a person has to a different source: the developmental process.

### Developmental Processes

Developmental models can be traced back to Piaget's theories of how humans progress as they assimilate (Paciotti, 2013). The developmental perspective in giftedness sees the concept of being gifted as the transformation of uncanny potential into actual outstanding performance and accomplishments (Pfeiffer, 2012, p. 3). Multiple researchers have advocated for giftedness to be viewed under this developmental model rather than as a state of being or absolute condition in which students are born, discovered, and remain for life (Gagné, 2015; Henderson, 2018; Nicpon, 2011; Pfeiffer, 2012; Renzulli, 2013; Subotnik et al., 2011).

Gagné's (1995, 2000, 2015) original differentiated model of giftedness and talent took up this developmental view. Based on his perception that the terms giftedness and talent were used interchangeably, Gagné (1995) proposed that more defined terms be utilized in a model that showed the difference between giftedness, a natural ability, and talent, a systematically developed skill in a field. Other researchers in the field, such as Subotnik (Subotnik et al., 2011), have even proposed entire definitions of giftedness around the developmental process alone, seeing giftedness and the movement from potential to eminence. When viewed under a developmental lens, giftedness becomes less binary and requires a more rich and nuanced perspective to successfully identify, assess, and educate students who have exceptional talents (Pfeiffer, 2012).

The common theme between these developmental models is the recognition that giftedness is not a static state of nature, but rather a process. This is a critical aspect of the research as the educational plan would have no value in altering the education of a gifted student if giftedness were merely a state of being that one was born into. When viewed as a developmental process, the educational plan does contain value as it allows teachers to provide alterations to the environment within which the gifted student will develop, thereby affecting the environmental catalysts to which the students are exposed.

#### Environmental Catalysts

The culture and the environment that a student lives in have both been found to affect brain development (Fox, 2006; Paciotti, 2013). Conversely, the way that the student perceives their educational environment also has an impact on their development and a negative perception may lead to underachievement or a lack of development (Siegle et al., 2017). Despite this, resistance to specific education for students who are gifted is often based on the assumption that the educational environment has no bearing on the success of a gifted child, an assumption that they will be successful no matter what environment they learn in (Subotnik et al., 2011).

Under the developmental phase of Gagné's (2015) differentiated model, environmental catalysts moderate the way a student develops as they work on activities and invest personal time, energy, and money into their own progress. These environmental catalysts can take the form of milieu (physical, cultural, social, and familial), individual (parents, family, peers, teachers, and mentors), and resources (curriculum, pedagogy, group, acceleration; Gagné, 2015). Environmental catalysts can exist at the macroscopic (geographic, demographic, etc.) or microscopic level (family characteristics, school characteristics) and can come from both unplanned and systematic influences (Gagné, 1995). Understanding the value of the

environmental catalysts is important since it is the area where the school and teacher have the greatest locus of control and the strongest ability to affect change within the development of the student (Bannister-Tyrrell, 2017). By altering variables within the educational plan, the school, or the classroom, the environmental catalysts can be altered to either improve or reduce the quality of student development.

The number of environmental catalysts that a student may encounter on a daily basis are too innumerable to quantify, but it is worth noting that an array of external influences impact the development of talent for each individual student on a daily basis and that a number of these influences, such as school type, charter status, and characteristics of the students teacher, were useful measures of analyzing the quality of educational plans. Likewise, as the talent development process is influenced by a number of external factors, it is also influenced by a number of internal factors as well.

#### Intrapersonal Catalysts

Intrapersonal catalysts play an important filtering role for the environmental contexts, acting as a “sieve” that the environmental catalysts have to pass through before they have an impact on the development of the gifted student (Gagné, 2015, p. 22). In Gagné’s (2008) model, intrapersonal catalysts were categorized as either traits (physical, mental) or goal-management abilities (awareness, motivation, volition). Many of these traits have been recognized in research as needed for a gifted student to be successful (Cavilla, 2016). Indeed, the literature at large recognizes a strong connection between the way a student perceives themselves, the task they are completing, and achievement (Cavilla, 2016; Esparza et al., 2014; Siegle et al., 2017).

As one landmark piece of research on grit stated, “achievement is the product of talent and effort” (Duckworth et al., 2007, p. 1098). Students cannot successfully navigate the

developmental pathways from giftedness to outstanding talent and achievement without the motivation and volition to work at the skill development for an extended period of time (Siegle, 2013). With that in mind, teachers can utilize the educational plan and differentiated planning to alter the environmental catalysts to align with student interests. Students are more likely to be motivated when they have agency in their learning and are working on a task that they have interest in (Reis & Morales-Taylor, 2010; Renzulli, 2013).

For students who lack these interpersonal catalysts, affective education that focuses on helping gifted children develop these talents was found not only to be effective, but to be an essential aspect of gifted education (Cavilla, 2016; Esparza et al., 2014; Klimis & VanTassel-Baska, 2013; Reis & Morales-Taylor, 2010).

Gifted students are more at risk for underachievement, perfectionism, and helplessness orientation than students in the general population, which may undermine their development and the realization of their potential (Esparza et al., 2014; Siegle et al., 2017). This is troublesome given that many districts are often weak in providing the kind of affective and differentiated education that is likely to help gifted students engage in their learning (VanTassel-Baska & Hubbard, 2019, p. 220). If the desire is for educators to make successful educational plans that are capable of drawing on the gifts of students and transforming them into talents, then the plans must take into consideration the interests of the student, what motivates them to learn and work towards development, in order for the plan to be successful in challenging the student to achieve their potential.

### Talents

Though there are many definitions of talent, Tranckle (2005) defined it as “a distinctly superior performance no matter what the field of activity it” (p. 19). In his differentiated model,

Gagné (2015) noted that talents are systematically developed, do not appear spontaneously, and required hundreds of hours of learning, training, and practice. Another important clarification in the differentiated model is that natural abilities are often referred to by characteristics, such as intelligence or creativity, while talents are often referred to by field, such as education or art (Gagné, 1995).

Renzulli (2013) noted the difference between natural abilities and talents when he referred to the fully-developed talents of gifted individuals as “creative-productive giftedness,” in which talented people apply their skills to a field to increase economic, cultural, or social capital (p. 1120). Gagné’s (2015) selection of talent domains (academic, technical, science/technology, arts, social service, administration/sales, business operations, professional gaming, sports/athletics) seems to align with these forms of capital development, seeing talent as something that can be put into action for the purpose of generating some form of capital. In both understandings, having an ability in an area has no concrete utility unless it can be developed into a talent that has practical application to a field.

The implications for this line of inquiry in the educational environment are very real. Students who are gifted need to have their thinking directed towards lines of career that will allow them to hone and apply their natural abilities, working the way professionals do in their fields, in order to develop their talents and find both engagement in their learning and success (S. Assouline, Fosenburg, & Schabilion, 2014; Guilbault, 2009; Klimis & VanTassel-Baska, 2013; Reis & Morales-Taylor, 2010; Renzulli, 2013; Siegle et al., 2017; Van Boven, 2015). It is the responsibility of the school to develop a strong plan for approaching the education of the student to ensure that they are challenged in order to develop their abilities into talents that will one day allow them to engage in a career they are passionate about.

## From Ability to Talent

The goal of this review of the theory of the differentiated model of giftedness and talent was not to argue the nature of giftedness, but rather to develop an understanding of how intelligence might develop within students who are gifted in order to highlight the areas where educators can apply pressure to help gifted students develop talents. While Gagné (2015) posited more complex models, such as the comprehensive model of talent development, the developmental lens of the differentiated model provided a useful frame for the analysis of educational plans, allowing for the examination of both the manner and measure of goal development within educational plans to determine the quality of educational plans for students who are gifted. Information in Figure 2 represents a visual depiction of Gagné's (2008) Differentiated Model.

While schools and teachers have little influence on the intrapersonal catalysts and natural abilities of their students, they do have a large amount of control they can exert upon the environmental catalysts to help a gifted student develop. Schools must take care to plan for effective, programmatic strategies that will help a gifted student develop, such as providing them access to acceleration (Assouline et al., 2014; Colangelo et al., 2004; Guilbault, 2009; Olsen, 2017; VanTassel-Baska, 2004), enrichment (Brigandi et al., 2018), and affective (Cavilla, 2016; Reis & Morales-Taylor, 2010) curricula.

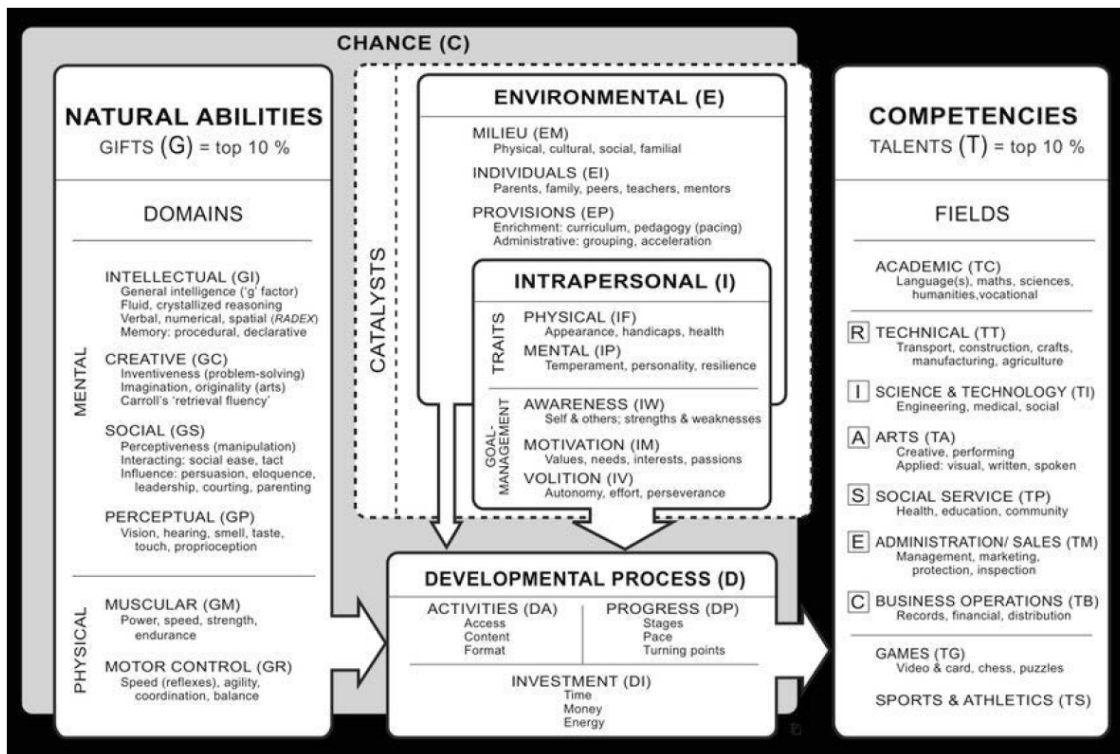


Figure 2. Gagné's Differentiated Model of Giftedness and Talent (2008)

One final needed note on the Differentiated Model of Giftedness and Talent is that Gagné (2015) presented a more robust theory with the comprehensive model of talent development, which combines the differentiated model of giftedness and talent with the developmental model of natural abilities to create a more holistic view of how natural abilities flourish before entering into the developmental phase associated with schools. Since the post-positivist epistemology is aligned with utilizing theories to evaluate, review, and explain best practices, and this research was examining the development that students underwent during the schooling phase of their development, the differentiated model of giftedness and talent was utilized in the conceptual framework (Panhwar et al., 2017). Bannister-Tyrrell (2017) identified the 2008 version of the differentiated model of gifted and talent as having the most utility out of all the current “Gagné models,” particularly “with respect to the provision of details that support both schools and

teachers in understanding their part in the developmental process” (p. 48). Given that the differentiated model (Gagné, 2008) is less complicated and allowed for a more thorough and noise-free analysis of the quality of educational plans, the differentiated model of giftedness and talent was utilized rather than the comprehensive model.

Under the differentiated model, a student moves from their natural ability to talent moderated by environmental catalysts, intrapersonal catalysts, and chance. Undoubtedly, the area where the educator has the greatest locus of control is within the environmental catalysts. Under this model, the educator must control for the environmental resources that a gifted student has access to in order to help their development into talented individuals. While some may view the educational plan for students who are gifted as simply a function of law or compliance, it can be a powerful tool to help the educator establish environmental catalysts that can aid the gifted student in their development and should, therefore, be carefully planned to ensure that the best development of the student.

#### Educational Plans for Students Who are Gifted

In 1979, shortly after the passage of Public Law 94-142, which would eventually be known as the Individuals with Disabilities Act, Hedbring and Rubenzer stated:

There is little doubt that the gifted student too is handicapped. By virtue of his or her inability to gain the similar guarantees of access to individualized, differentially tailored instruction accorded other, less fortunate handicapped students, the gifted often find themselves at a distinct disadvantage in the classroom. Given the push for accountability in education, the continuing call for competency-based instruction, and the emerging threat of educational



malpractice litigation, it can be expected in the near future IEPs for the gifted will become a reality. (Hedbring & Rubenzer, 1979, p. 338)

This has borne out to be true in multiple states and countries in North America (Carolyn, 2019), likely due to the fact that students who are gifted require some degree of special education to be successful in the classroom (Assouline et al., 2014; Reis & Morales-Taylor, 2010). Renzulli (2013) argued that the purpose of special education for students who are gifted is reliant upon three assumptions: (a) to provide young people with opportunities for self-fulfillment through the development and expression of areas where superior potential may be present, (b) to increase society's reservoir of persons who will help to solve the problems of civilization, and (c), to model special programs for giftedness after the learning methods of great leaders rather than after good lesson learners (p. 1120). Gagné (2000, 2015) found that environmental catalysts such as goals can exert positive influences on the talent development of students who are gifted. While larger, urban districts may be capable of providing systemic curriculum opportunities for students who are gifted to aid the talent development process, smaller school sites and decentralized school systems where grouping may be impractical can help gifted students grow by providing individualized education plans (VanTassel-Baska, 2010).

Since the inception of the individualized education plan, the fundamental four components have essentially remained the same: (a) the child's present levels of performance, (b) measurable annual goals, (c) a statement of special education and related services, and (d) a statement of the program modifications that will advance the child appropriately toward attaining the annual goals (Shaunessy, 2003). The educational plan should track the method of modifying the curriculum in addition to documents related to the identification of giftedness (Klawiter, 1993). These four categories are required for educational plans for students who are gifted in

Florida to help provide challenge for gifted students that will engage the students and help them develop their talents (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016).

Under the developmental lens, the goal-setting structure of the educational plan is an important provision for the development of the gifted, and one that has been found to be an effective method to help gifted students nurture talent (Dingle Swanson, 2016; Willis, 2007). Van Boven (2015) documented goals on educational plans for gifted students that fell into the categories of critical thinking, self-directed learning, positive self-concept, positive interpersonal relationships, and creative thinking and found that these goals reflected an emphasis on improving behaviors of students who are gifted.

Rogers (2007) found success with educational plans for students who are gifted in two midwestern school districts through the creation of plans that led teachers to challenge gifted students in their specific areas of talent, provided opportunities for gifted students to individually work in their areas of passion, provided subject-based and grade-based acceleration as required, provided opportunities for gifted students to socialize with like-ability peers, and helped to differentiate curriculum for the gifted students in areas of pace, amount of review and practice, and organization of content presented. Clark, Lee, Goodman, and Yacco (2008) found that a majority of educational plans for students who are gifted only provided consultation services rather than academic curriculum or specific interventions. Yet, individualized plans for gifted student learning have been perceived as better serving students across a variety of wealth classes and races than magnet programming, even if they provide limited services such as consultation for high track students (Turner & Spain, 2016). Dingle Swanson and Lord (2013) noted that

having specified plans for gifted students' programs and curriculum was an essential element for these students to receive a quality education (p. 210).

Despite the promising research on the impact of educational plans for students who are gifted, little research exists on assessing the quality of educational plans for students who are gifted (Van Boven, 2015; Weber et al., 2013). Though gifted students having educational plans and specific goals have been identified as theoretically important covariates for the success of gifted students, research has not determined their impact on achievement (Adelson et al., 2012). When it comes to the systemic evaluation of planning and programming for students who are gifted, VanTassel-Baska (2010) found that many students lacked sufficient contact time with differentiated curriculum to show positive development, and many schools lacked the expertise, resource power, and data to effectively evaluate the goal attainment of students who are gifted. Matthews and Shaunessy put it succinctly: few gifted education settings appear to have developed systematic plans for evaluating their programming (Matthews & Shaunessy, 2010, p. 160).

In the state of Florida, the requirements for educational plans can be understood through the state K-12 gifted plan. In the resource guide for the education of gifted students in Florida, the requirements for gifted programming, which should be delineated in the gifted educational plan, are detailed as:

Programs should be offered that meet the student's individual needs as much as possible. Since gifted students are not universally high performing, the classes and program options a student is enrolled in should reflect those differences. A student whose level of performance indicates a predominant strength in math and mastery of grade-level standards but who is reading near grade level would

not be best served in a program that focuses on high-level language arts or interdisciplinary units of study. The goals on that student's EP should indicate how advanced math instruction will be received using math skills in independent projects to ensure the student continues to make gains in mathematics.

Continued motivation to learn comes with being successful when completing rigorous tasks, preferably with intellectual peers. Modifications could be provided through tiered assignments, flexible grouping, curriculum compacting, interest centers, higher levels of questioning, alignment with the goals of the Frameworks for K-12 Gifted Learners and planning progress for the student from the Know, Understand, Perform, and Accomplished levels, as appropriate.

*(Resource Guide for the Education of Gifted Students in Florida, 2017, p. 22)*

This document stresses the need for goals that align with student strengths, rather than providing every student with predetermined, programmatic goals, such as ensuring every student has one reading goal and one math goal. Goals should be aligned to student strengths and student interests in order to drive motivation and help the students develop their giftedness properly. Moreover, formal training is needed to clearly articulate appropriate educational plans and goals that can challenge the gifted nature of students (Besnoy et al., 2015). Teachers need to collaborate with parents and students in order to develop educational plans that effectively meet student needs and an instrument is needed that can assess the quality of these plans to ensure that students are doing the right work in that will help them become contributors to society (Besnoy et al., 2015; Renzulli, 2013). Without an evaluation of the quality of plans, an evaluation of the quality of gifted programming in Florida cannot effectively occur at the student level, and steps

to adjust formal training cannot occur. In an effort to forward this analysis, a review of the literature on the components of the educational plan was needed.

### Goal-Setting

Goal-setting for students has been found to have a high effect size ( $d = 0.56$ ) in helping students grow academically (Hattie, 2009). When goal setting occurs in contexts that are supportive and emphasizes mastery rather than competition or performance, goal achievement is more likely to occur (Burnette et al., 2013; DeMink-Carthew et al., 2017). Interventions should be provided to help improve goal achievement, which is a core function of the educational plan (Burnette et al., 2013). Setting goals can be an effective mechanism for helping students develop desired behavioral traits in the classroom and for staving off the effects of underachievement, to which gifted students can be prone (Johnsen & Kendrick, 2005; Mofield & Parker Peters, 2019; Siegle et al., 2017). Indeed, students who are gifted can utilize need-based goals in order to help nurture the development of their potential and increase their achievement (Cavilla, 2016; Mofield & Parker Peters, 2019; Willis, 2007). Goals that articulate what a student should be able to do with what they've learned by the end of a grade level or their school careers are an essential aspect of education for gifted students as they aid in moving the student toward expertise and deeper understanding (Hockett & Brighton, 2016). Van Boven (2015) offered samples of goals for gifted students (p. 103).

For gifted students, there are multiple types of goals that can be beneficial, including: (a) the development of problem-solving and decision-making skills, (b) the development of the ability to work at the higher levels of Bloom's Taxonomy, and (c) the encouragement and nurturance of creativity (Fetzer, 2000). The specific goals should be aligned to students' strengths and interests in order to help them develop intrinsic motivation as they work toward

developing their talent (Baum & Novak, 2010; Cavilla, 2016; Fetzner, 2000). Goals that are performance-based can lead to students who are gifted self-sabotaging and underachieving, whereas mastery-based goals can lead to actualized achievement (Mofield & Parker Peters, 2019). When planning services for gifted students, data should be utilized to determine the need, match the intervention directly to the learner, and ensure that goals set are measurable (Brown, 2012). Goal valuation, the perceived meaningfulness of a given task, was found to be a predictor of gifted underachievement, indicating that it is critical for those working on educational plans to establish strong goals that the student considers to be important (Mofield & Parker Peters, 2019; Siegle et al., 2017). Furthermore, students who are gifted need to be deliberately taught organizational skills such as personal goal-setting in order to stave off underachievement (Mofield & Parker Peters, 2019).

SMART (specific/strategic, measurable, attainable/achievable, relevant/results-based, timely/time-bound) goals, in particular, are a style of goal that can be useful in academic settings as they are highly contextualized and meaningful while still allowing for personalization (Ross et al., 2016). While the SMART framework has utility in the analysis of goals, goals in the academic setting have been found to be underdeveloped, vague, broad, lacking in clarity, or misaligned with the provided strategies (Ross et al., 2016, p. 359). Furthermore, SMART goals can also have a measurable impact on student development, particularly if the goals are developed between the teacher and the student and the teacher holds the student accountable for completing the goal (O’Niell, 2004).

In alignment with the nature of giftedness from the talent development theory, goals are very important for gifted students as they may be at risk for social and emotional development issues if their needs are not met, such as underachievement or depression (Reis & Morales-

Taylor, 2010). Having strong goals that allow students who are gifted to work on creatively engaging projects may stave off the worse of these effects (Esparza et al., 2014; Reis & Morales-Taylor, 2010; Renzulli, 2013; Siegle et al., 2017). Since the intrapersonal catalysts that a student has determines how they will react to goals, students should have a voice in setting their own academic goals on their educational plans (Dingle Swanson, 2016; Gagné, 2015). Setting strong goals for gifted students in order to provide challenge that will help them develop their gifted into talents that can be applied to a career field is one of the most important functions of the educational plan. For this reason, the plan should be focused on helping students develop their strengths rather than correct their weaknesses.

#### Strengths-Based

Baum, Schader, and Hébert (2014) identified *strengths-based* as “curricular and instructional approaches that are differentiated to align with students’ cognitive styles, learning preferences, and profiles of intelligences” (p. 312) Effective curriculum for gifted students should take a strength-based approach while focusing on developing the talents of the student, which will allow the student to excel despite social, emotional, or cognitive challenges (Baum et al., 2014). Crepeau-Hobson and Bianco (2013) found that efforts to educate students who are gifted must be strengths-based in order to be efficacious and that teachers need preparation in identifying and supporting these strengths (p. 149). Focusing teacher efforts to challenge academically talented students in their areas of strengths and interest leads to student success, as long as self-regulation education is integrated to help the students understand and adhere to their goals (Reis & Morales-Taylor, 2010). From this research, it can be seen that effective educational plans for students who are gifted must target student strengths rather than their weaknesses if they are to properly develop their talents. As Proyer, Gander, and Tandler (2017)

stated, “a strength-based approach in working with the gifted may help them in using their strengths more efficiently—in general and at school in particular” (p. 122).

Gifted children, similar to children with disabilities, have specialties that should be targeted for continued growth in individual learning opportunities (Shaunessy, 2003, p. 18). Learning involves risk, error, and triumph, and without a teacher that intentionally plans for students to engage in challenging learning, students who are gifted will likely not experience growth in the traditional classroom (Colangelo et al., 2004; Tomlinson, 2014). Despite this, professionals in education usually focus on student weaknesses rather than strengths (Tebbs, 2014, p. 155). Even when the students have an identifiable deficit, such as ADHD, ELL, or some other second exceptionality, focusing their education on their strengths and talents highlights their motivation, perseverance, and resilience, allowing them to thrive in the classroom (Baum et al., 2014; Bianco & Harris, 2014; Fugate, 2018). For these reasons, in addition to the fact that it is a legal requirement in the state of Florida, the educational plan for a gifted student should be aligned towards helping students develop their individual strengths, rather than seeking to correct a deficit or set a goal for an area of weakness in their present levels of performance.

#### Measurement and Assessment of Individual Education Plans

While the research around educational plans for gifted students is relatively absent within the realm of gifted research, there is a large body of research around examining the quality of individualized education plans for students with other exceptionalities. Individual education plans have always been difficult to complete, in terms of both compliance and quality, but got substantially more difficult with the IDEA 1997 expansion (Drasgow et al., 2001; Huefner, 2000). Even the concept of which aspects of the plan to review was contentious: evaluation of



individual education plans/programs began with only the evaluation of specific learning goals, but eventually moved towards more comprehensive reviews (Maher & Barbrack, 1980). An array of issues prevent IEPs from being written and implemented well, such as failure to report present levels of performance or parental concerns, lack of appropriate goals or objectives, poorly aligned benchmarks for goals, and education decisions made not based on the IEP (Drasgow et al., 2001; Eng, 2015; Huefner, 2000; Martin et al., 1996).

The education benefit of IEPs has long been proven (Karvonen & Huynh, 2007; La Salle et al., 2013; Thompson et al., 2001; Wesson et al., 1982). When implemented properly in the classroom, particularly with regards to planning lessons, IEPs are operationally beneficial for students (Eng, 2015; Grisham-Brown et al., 2002; Pretti-Frontczak & Bricker, 2000). Given that response to intervention has been found as effective with gifted students, and that goal-setting has an array of effects, these benefits should apply to gifted students, who also need special education in order to meet their potential (Brown, 2012; Reis & Morales-Taylor, 2010).

There have been multiple attempts to develop effective instruments for evaluating both the quality and the effectiveness of IEPs for students with exceptionalities (La Salle et al., 2013; Maher & Barbrack, 1980; Ruble et al., 2010; SERC, 2013). As Maher and Barbrack (1980) noted, a comprehensive review of an individual educational plan should not only evaluate the quality of the goals, but also review the extent to which the IEP can be evaluated, the degree to which it is being implemented, and the satisfaction of the parents and student with the IEP.

Ruble, McGrew, Dalrymple, and Jung's (2010) research created an instrument for examining the effectiveness of IEPs for students with autism. Given that there have been multiple successful attempts to evaluate the quality of individual educational plans for students with disabilities, it is likely that a similar effort can be replicated with educational plans for

gifted students since they come from the same legal mandate and share strong relational connections in the aspects required to draft and implement the plans (Hedbring & Rubenzer, 1979). While some changes may need to be made to account for the minimal differences between the gifted EP and the IEP, and to account for Florida state laws that must be considered in writing the plans, the tool is effective enough to examine the general construction of the educational plans for a measure of their quality.

### Teacher Beliefs

The “affective and evaluative aspect” of behavioral perceptions “concerns the impact of teachers' sometimes unrecognized feelings about students on the ways they treat these students” (Nespor, 1985, p. 14). The construct of teacher beliefs, sometimes referred to as teacher attitudes or teacher opinions, is particularly useful because it helps reconcile teacher beliefs with the actions they conduct. While the construct does not have as strong an impact on student achievement as the construct of teacher behaviors, the beliefs a teacher holds has been found to have an indirect influence on the achievement of the students in the classroom (Muijs & Reynolds, 2015).

In general, teacher beliefs impact the way a teacher implements instructional practices in their classroom. Indeed, a teacher may choose not to implement an effective research-based strategy if it does not align with their instructional beliefs (Johnsen & Kaul, 2019, p. 230). A teacher may even place a priority on which students to focus their time on, for example spending more time planning to aid an academically weaker student, based on the beliefs that they have about differing student populations (Vreys et al., 2018). Teachers may not even be aware of the beliefs that they hold towards teaching and their students, even if they hold multiple beliefs that conflict with each other (Pilitsis & Duncan, 2012).

Subjective teacher beliefs can negatively affect the expectations that teachers hold towards their students, in turn altering the way they behave in the classroom (Matheis et al., 2017). Student motivation can decrease if the student believes their teacher has a negative view of them, highlighting how important teacher opinions can be (Winton, 2013). On the other hand, teachers with high expectations of their students' ability to succeed acts as a significant predictor of students' academic outcomes (Tofel-Grehl & Callahan, 2017). For these reasons, it is important to not only examine the impact that teacher beliefs can have on student achievement but also commonly held teacher attitudes and opinions about the gifted and their education.

#### Attitudes and Opinions About the Gifted and their Education

As far back as the early 2000s, educator opinions about acceleration for and grouping of students who are gifted have been viewed as a test of the level of acceptance that gifted programming has in a given school district (VanTassel-Baska, 2004). While the field of research on teacher beliefs is relatively robust, however, the research about teachers' attitudes and opinions on gifted education is still rare (Gagné, 2018).

Gagné wrote that “most of us harbor our personal ‘implicit theory’ for the causal origins of academic talent” (Gagné, 2015, p. 13). Given that teachers with incorrect beliefs about gifted characteristics are more likely to give negative evaluations of students who are gifted, it is important to understand the value of the attitudes and opinions that teachers hold towards giftedness (Matheis et al., 2017, p. 152). Despite decades of research, we still do not have a clear view of teachers' attitudes towards gifted education, nor do we understand how their attitudes impact their students' learning (Gagné, 2018; McCoach & Siegle, 2007; Russell, 2018). Researchers have found an array of varying general attitudes of teachers towards their gifted students, ranging from generally positive (Gagné & Nadeau, 1984; Moore, 2009), to generally

negative (Cramond & Martin, 1987), to mixed (Olsen, 2017) or even relatively neutral opinions (McCoach & Siegle, 2007).

Anecdotal evidence has found that “many regular education teachers report that meeting the needs of high-ability students equals and often exceeds the challenges of integrating disabled students in their classroom” (Johnsen & Kendrick, 2005, p. 19). Particularly during their early careers, teachers can feel afraid of working with gifted students and their range of abilities, and feel unprepared to work with their parents (Rowan & Townend, 2016), which may be particularly impactful on educational plans given that they are created by a team comprised of the teacher and the parents of the gifted student. This feeling of unpreparedness, coupled with a misunderstanding of giftedness, can lead teachers to take swipes at students, making statements such as, “You should know the answer to this, you are gifted.” (Colangelo, 2018, p. 4) As teachers get further into their careers and experience working with various students, their perception of gifted students may improve (Olsen, 2017; Russell, 2018).

In a systematic review of districts across the country, beliefs that gifted students could learn on their own, that they did not need special education or curriculum, and that they should be helping other learners advance were still prevalent (VanTassel-Baska & Hubbard, 2019, p. 224). While a majority of teachers may fall victim to these assumptions and myths, there is one group that tends to have a stronger understanding of gifted students: teachers who believe that they themselves are gifted tend to have a better understanding of giftedness and are more likely to see giftedness as a function of talent development, though they are not any more likely to have a more positive or negative view of giftedness than other groups (McCoach & Siegle, 2007; Russell, 2018).

When teachers have a positive view of their gifted students and seek to differentiate and provide challenge for them, student perceptions of their environment positively increase and students have positive academic outcomes (Brigandi et al., 2018; Johnsen & Kaul, 2019). These attitudes can be positively influenced by providing training on the nature and needs of giftedness (Bégin & Gagné, 1994; Eriksson et al., 2012). Despite these positive outcomes and influences, teachers who view effective, research-based strategies for gifted education in a positive light still may not implement the strategies in the classroom (Johnsen & Kaul, 2019). For example, 93% of teachers reported agreement that acceleration in above-level content based on individual progress was an effective practice with gifted students, yet only 20% of those same teachers reported implementing the strategy with their students in the classroom (Johnsen & Kaul, 2019).

While there is a body of literature around the attitudes and opinions that teachers hold towards the education of their gifted students, there is still no clear picture about the general attitudes of teachers of the gifted, though it does seem to skew slightly positive (McCoach & Siegle, 2007; Olsen, 2017; Russell, 2018). Even less literature about the impact that these specific attitudes have on the education of the gifted students exists, indicating a need for research (Johnsen & Kaul, 2019). Overall, large gaps exist in the literature around teacher beliefs of giftedness and their relation to instructional decisions.

#### Gaps in the Literature

The current research had two phases: an examination of the quality of educational plans for students who are gifted, and an analysis of the perceptions that teachers who write these plans hold towards gifted students and their education. To that end, it was noted that a preponderance of the literature on educational plans for gifted students focused on individualized educational plans (IEPs) for twice-exceptional gifted students that account for deficiencies rather than paying

formalized attention to areas of strength (Fahey, 2015). There was also little identified research into the effectiveness or evaluation of gifted programs, meaning that there was also little research into the effectiveness and evaluation of educational plans for students who are gifted (Zirkel, 2016). Similarly, there does not exist a single definition of giftedness, but rather an array of definitions and understandings, which may increase the difficulty of observation of the construct that is *giftedness* given the potential for miscommunication in meanings and subjective understandings of the construct (Bégin & Gagné, 1994; Gagné & Nadeau, 1991; Renzulli & Smith, 1981; Russell, 2018; Subotnik et al., 2011).

For the second phase of this study, which examined teacher opinions towards their gifted students and the effect that may have on them, little research was found regarding the impact that teacher opinions about giftedness have on the manner in which the teacher implements specific instructional strategies in the classroom (Johnsen & Kaul, 2019). Also, while there were substantial examinations of the attitudes teachers have towards gifted students and methods of educating them, there was still an unclear picture of larger trends or predictors of these attitudes (Bégin & Gagné, 1994; Gagné, 2018; McCoach & Siegle, 2007). Based on these gaps, the current study sought to forward the literature through analyzing teacher opinions towards gifted students and examining if a relationship existed between their opinions and the plans they create to support those students in the classroom.

### Summary

Mixed-methods research is concerned with the reconciliation of the different phases of research (Creswell & Clark, 2011). An examination of the purpose and value of educational plans, the measurement of individualized educational plans, the research on teacher beliefs, and the research on the attitudes of teachers about giftedness was conducted in order to reconcile the

affective and evaluative aspect of teacher beliefs with the differentiated model of giftedness and talent. This critical analysis provided a strong overlay for the connoisseur methodology that allowed for the development of an analytical instrument for assessing the quality of educational plans for students who are gifted.

The Differentiated Model of Giftedness and Talent showed the nature of the development of skills, a process in which a student moves from having natural talents to develop into skills. During this developmental process, the student's growth is heavily influenced by the environmental catalysts around them and their own intrapersonal catalysts. The interaction between their motivation and volition with the classroom, teachers, and tasks has a large effect on whether a gifted student meets their potential. For this reason, it is essential that a teacher of the gifted creates an environment that challenges the gifted student and differentiates tasks enough that they are capable of learning to their ability rather than regressing to the mean, watching other students close the gap in differences of ability as they grow while the gifted student stagnates. This need can be addressed through the creation of strong goals that will encourage the student to work towards their potential and develop their talents. The educational plan is an excellent place for these goals to be formally developed in an interaction between the teacher, student, and parents. Yet, the opinions that a teacher holds towards giftedness and acceleration may have a profound impact on the quality of the goals and educational plans that are produced, potentially creating plans that could inhibit student development rather than foster it. For that reason, a study that examined both the quality of educational plans and the impact that teacher opinions about giftedness had on the plans was undertaken.

Throughout the research, multiple trends and themes occurred, including giftedness as a natural ability (Cavilla, 2016; Guez et al., 2018; Kulik & Kulik, 1992; Logan, 2011; Renzulli,

2013; Turner & Spain, 2016), giftedness as talent development (Bannister-Tyrrell, 2017; Baum & Novak, 2010; Gagné, 1995, 2000, 2004, 2015, 2008; Pfeiffer, 2012; Renzulli, 2013; Sastre-Riba et al., 2018; Silverman, 1997; Subotnik et al., 2011; Tranckle, 2005), environmental catalysts that impact talent development (Adelson et al., 2012; Assouline et al., 2014; Binet & Simon, 1908; Brown, 2012; Cavilla, 2016; Colangelo et al., 2004; Dingle Swanson, 2016; Fox, 2006; Siegle et al., 2017; Tomlinson, 2014; VanTassel-Baska, 2010; Willis, 2007), interpersonal catalysts that impact talent development (Brown, 2012; Duckworth et al., 2007; Esparza et al., 2014; Mofield & Parker Peters, 2019), the value of goal-setting (Burnette et al., 2013; Cavilla, 2016; DeMink-Carthew et al., 2017; Doran, 1981; Hattie, 2009; Hockett & Brighton, 2016; O’Niell, 2004; Ross et al., 2016), the value of strength-based education (Baum et al., 2014; Bianco & Harris, 2014; Crepeau-Hobson & Bianco, 2013; Fugate, 2018; Proyer et al., 2017; Reis & Morales-Taylor, 2010; Shaunessy, 2003; Tebbs, 2014), the difficulty of assessing individual education plans (Drasgow et al., 2001; Eng, 2015; Grisham-Brown et al., 2002; Huefner, 2000; Karvonen & Huynh, 2007; La Salle et al., 2013; Maher & Barbrack, 1980; Martin et al., 1996; Pretti-Frontczak & Bricker, 2000; Ruble et al., 2010; Thompson et al., 2001; VanTassel-Baska & Hubbard, 2019; Wesson et al., 1982), and the negative opinions that teachers can hold toward students who are gifted (Bégin & Gagné, 1994; Brigandi et al., 2018; Colangelo, 2018; Gagné, 2018; Gagné & Nadeau, 1984, 1991; Johnsen & Kaul, 2019; Johnsen & Kendrick, 2005; Logan, 2011; Matheis et al., 2017; McCoach & Siegle, 2007; Moore, 2009; Muijs & Reynolds, 2015; Nespor, 1985; Olsen, 2017; Pilitsis & Duncan, 2012; Rowan & Townend, 2016; Russell, 2018; Tofel-Grehl & Callahan, 2017; Vreys et al., 2018; Winton, 2013). The reviewed literature, organized under themes, can be seen in Table 1.



Table 1

*Thematically Organized Summary of Reviewed Literature*

Study	Theme	Relevant Findings
Gagné (1995)	Talent Development	Giftedness is a development process that moves students from biological ability to developed talents
Silverman (1997)	Talent Development	Gifted students are subject to asynchrony of development, they advance in some areas faster than others, and their education needs to recognize their unique differences to support their development.
Tranckle (2005)	Talent Development	The differentiated model of giftedness and talent can be applied to other fields, such as sports.
Baum & Novak (2010)	Talent Development	Including talent development on individualized educational plans for twice-exceptional students grows their talents.
Subotnik, Olszewski-Kubilius, & Worrell (2011)	Talent Development	We must rethink giftedness as a measure of the development of talent within specific domains and shift our thinking towards recognizing and serving talent domain trajectories.
Pfeiffer (2012)	Talent Development	Categorical models of giftedness must reorganize toward models that develop the talent of students with uncanny abilities and recognize the complex and nuanced nature of abilities.
Renzulli (2013)	Talent Development	There are two types of giftedness, students learn at different paces, and by making student work mirror work in their field, they can develop from the first type of giftedness to the second.
Sastre-Riba, Castelló-Tarrida, & Fonseca-Pedrero (2018)	Talent Development/ Environmental Catalysts	Students measured with high intellectual ability at a young age may measure either higher or lower at a later age depending on developmental consequences from the educational environment.

Study	Theme	Relevant Findings
Kulik & Kulik (1992)	Natural Ability	Students of a like ability benefit from being paired together in learning activities.
Cavilla (2016)	Natural Ability/ Environmental Catalysts	Gifted students have affective needs that differ from general students and need a school environment that reflects these needs.
Turner & Spain (2016)	Natural Ability/ Teacher Opinions	Systems of belief about innate ability and educational stratification are hard to disrupt, creating difficulties in increasing equity within gifted and high ability programs.
Guez, Peyre, Le Cam, Gauvrit, & Ramus (2018)	Natural Ability	Students with high IQs performed better in school, were less likely to drop out, and had higher levels of motivation and self-efficacy than non-gifted peers.
Binet & Simon (1908)	Environmental Catalysts	Intelligence is highly influenced by the environment the student is in.
Colangelo, Assouline, & Gross (2004)	Environmental Catalysts	There are many forms of acceleration that are beneficial to gifted students in school environments, a majority of which are not offered properly in schools.
Fox (2006)	Environmental Catalysts	There are neurobiological realities to learning and growth, which are affected by the environment and lived experiences of the participant.
VanTassel-Baska (2010)	Environmental Catalysts	The work done in gifted programs in major cities presents useful prototypes for analyzing current gifted programs in urban school districts.
Dingle Swanson (2011)	Environmental Catalysts	Strong leadership sustains innovation in the development of gifted curriculum and instruction, which can transform teaching and teachers.
Adelson, McCoach, & Gavin (2012)	Environmental Catalysts	Having a gifted program is not enough to increase student achievement, but rather research-based strategies must be implemented.

Study	Theme	Relevant Findings
Brown (2012)	Environmental Catalysts/ Interpersonal Catalysts	Response to intervention is a suitable model for use with gifted students and can lead to decreases in underachievement.
Tomlinson (2014)	Environmental Catalysts	Teachers must be ready to engage students in instruction through different approaches to learning, by appealing to a range of interests and by varying the rate of instruction.
Assouline, Colangelo, VanTassel-Baska & Lupkowski-Shoplak (2014)	Environmental Catalysts	Differentiation and enrichment can be effective instruction for gifted students, but truly successful educational environments for these students rely on acceleration in pace and level of content.
Siegle, McCoach, & Roberts (2017)	Environmental Catalysts	The way a student perceives their educational environment has an impact on their development and a negative perception may lead to underachievement or a lack of development.
Willis (2007)	Environmental Catalysts/Goal-Setting	Gifted students need long term goals in their classrooms that require them to engage in long-term projects and in-depth investigations.
Doran (1981)	Goal-Setting	Established the SMART framework for goal development.
O’Niell (2004)	Goal-Setting	SMART goals lead to increased student outcomes, particularly if teachers and students share responsibility for goal setting and completion.
Hattie (2009)	Goal-Setting	Goal-setting in an academic environment has an effect size of $d = 0.56$ .

Study	Theme	Relevant Findings
Burnette, O'Boyle, VanEpps, Pollack, & Finkel (2013)	Goal-Setting	Self-regulation (goal setting, goal monitoring, and goal operating) can predict goal achievement.
Hockett & Brighton (2016)	Goal-Setting	Goals that articulate what a student should be able to do with what they've learned by the end of a grade level or their school careers are an essential aspect of education for gifted students.
Ross, Carbone, Lindsay, Drew, Phelan, Cottman, & Stoney	Goal-Setting	When the SMART goal framework is applied to the educational context, current goals appear to be broad, vague, underdeveloped, misaligned, or not easily understood.
DeMink-Carthew, Olofson, LeGeros, Netcoh, & Hennessey (2017)	Goal-Setting	Considerable variation exists among goal-setting practices so educators need to work to align goal-setting approaches.
Duckworth, Peterson, Matthews, & Kelly (2007)	Intrapersonal Catalysts	Achievement is the product of talent and effort, which can be measured as the "gritiness" of an individual.
Esparza, Shumow, & Schmidt (2014)	Intrapersonal Catalysts	Student's growth mindset can be altered with affective interventions and may be more needed for gifted students than students in the general population.
Mofield & Parker Peters (2019)	Intrapersonal Catalysts	Gifted underachievers are more likely to have a fixed mindset, more likely to be less organized, and have lower motivation and self-regulation than gifted achievers.
Hedbring & Rubenzer (1979)	IEPs for Gifted Students	There will be a day in which gifted students receive IEPs just as other exceptional students do.

Study	Theme	Relevant Findings
Rogers (2007)	IEPs for Gifted Students	Educational plans for students who are gifted confer an array of benefits by leading teachers to plan for student needs specifically.
Clark, Lee, Goodman, & Yacco (2008)	IEPs for Gifted Students	Gender is an important variable when analyzing educational outcomes for gifted students.
Besnoy, Swoszowski, Newman, Floyd, Jones, & Byrne (2015)	IEPs for Gifted Students	Parents of twice-exceptional gifted students need specific training to be able to successfully advocate for their child.
Van Boven (2015)	IEPs for Gifted Students/Goal-Setting	Goals on educational plans for gifted students fall into the categories of critical thinking, self-directed learning, positive self-concept, positive interpersonal relationships, and creative thinking.
Dingle Swanson & Lord (2016)	IEPs for Gifted Students	Quality gifted programming has four key components: identification of gifted students; program and curriculum services; personnel preparation; and management, assessment, and evaluation of the program.
Carolyn K. (2019)	IEPs for Gifted Students	Twelve states in the U.S. require gifted students to receive IEPs just as other exceptional students do.
Shaunessy (2003)	Strengths-Based Education	Educational plans for gifted students should target their strengths rather than their weaknesses.
Reis & Morales-Taylor (2010)	Strengths-Based Education	Gifted students show growth when challenged in their areas of strength and interest, yet need education in self-regulation to successfully meet challenging expectations.

Study	Theme	Relevant Findings
Crepeau-Hobson & Bianco (2013)	Strengths-Based Education	Response to intervention for gifted students may not be efficacious unless it includes a strengths-based perspective.
Baum, Schader, & Hébert (2014)	Strengths-Based Education	Strengths-based, talent-focused education allows twice exceptional gifted learners to overcome social, emotional, and cognitive challenges and meet their potential.
Bianco & Harris (2014)	Strengths-Based Education	Gifted English language learners respond positively to strengths-based interventions.
Tebbs (2014)	Strengths-Based Education	Making profiles of students' strengths and teaching to them has a positive impact on student achievement.
Proyer, Gander, & Tandler (2017)	Strengths-Based Education	Strengths-based approaches allow educators to narrow down particular interventions and tailor them to the needs of a gifted student.
Fugate (2018)	Strengths-Based Education	Gifted students with ADHD respond positively to strengths-based interventions and education.
Maher and Barbrack (1980)	Assessing IEPs	Evaluation of IEPs began with only evaluation of specific learning goals, but eventually moved towards more comprehensive reviews.
Wesson, Deno, & Mirkin (1982)	Assessing IEPs	Student achievement is correlated with the amount of structure that an instructional plan has and the degree of implementation of a formative evaluation system.
Martin, Martin, & Terman (1996)	Assessing IEPs	While cost is not an option that school districts can consider when writing an IEP, many inexplicitly assess IEPs based on cost.
Huefner (2000)	Assessing IEPs	Developing quality IEPs depends on the energy and good will of the IEP team.

Study	Theme	Relevant Findings
Pretti-Frontczak & Bricker (2000)	Assessing IEPs	Many individual goals on IEPs are poorly written and not individualized, though providing training can increase the quality of written goals for IEPs.
Drasgow, Yell, & Robinson (2001)	Assessing IEPs	Developing legally correct and educationally appropriate IEPs is difficult and can lead to many districts making costly mistakes.
Thompson, Thurlow, Quenemoen, Esler, & Whetstone (2001)	Assessing IEPs	Many state IEP forms do not address educational standards, hindering the development of effective individual education plans.
Grisham-Brown, Pretti-Frontczak, Hemmeter, & Ridgley (2002)	Assessing IEPs	IEP goals and objectives need to be embedded in the general curriculum in order for students to develop successfully.
Karvonen & Huynh (2007)	Assessing IEPs	A substantial amount of IEP goals are not aligned with educational standards and expectations.
Ruble, McGrew, Dalrymple, & Jung (2010)	Assessing IEPs	Developed an instrument for assessing IEPs for students with autism and found variance in the quality and types of goals on IEPs.
La Salle, Roach, & McGrath (2013)	Assessing IEPs	A researcher-developed instrument for assessing IEPs found that goals had high variance, and that academically-focused IEPs were stronger than behaviorally-focused ones.
Eng (2015)	Assessing IEPs	Providing specific formatting for IEP writing can lead to higher quality IEPs.
VanTassel-Baska & Hubbard (2019)	Assessing IEPs/Teacher Opinions	Educational programs for gifted students have rarely been evaluated; teacher beliefs about gifted students still see them as succeeding on their own with intervention.

Study	Theme	Relevant Findings
Gagné & Nadeau (1984)	Teacher Opinions	Teachers have generally positive attitudes toward gifted students.
Nespor (1985)	Teacher Opinions	Established a conceptual framework for teacher belief systems.
Gagné and Nadeau (1991)	Teacher Opinions	Posited an instrument for measuring teacher opinions towards the gifted and their education.
Bégin & Gagné (1994)	Teacher Opinions	There are few potential indicators of attitudes towards gifted students, but they include: self-perceptions of giftedness, contact with gifted persons, level of education, sex, and occupation as teacher.
Johnsen & Kendrick (2005)	Teacher Opinions	Teachers reported that working with gifted students was more challenging than integrating disabled students into the classroom.
McCoach & Siegle (2007)	Teacher Opinions	Found possible predictors of educators' attitudes towards giftedness to be (a) training or experience in gifted education, (b) training or experience in special education, and (c) self-perceptions as gifted.
Moore (2009)	Teacher Opinions	Teachers have generally positive opinions towards giftedness and gifted education, but lack understanding of how to meet the needs of gifted students.
Logan (2011)	Teacher Opinions/ Natural Abilities	Teachers of the gifted have measurably higher opinions about gifted students than regular education teachers, and are better at differentiating for these students, though lesson planning is a weakness.
Pilitsis & Duncan (2012)	Teacher Opinions	Teachers may have more than one belief orientation about their students, which may conflict and shift frequently.
Winton (2013)	Teacher Opinions	When students perceive a teacher as disliking them, their motivation decreases.



Study	Theme	Relevant Findings
Muijs & Reynolds (2015)	Teacher Opinions	Teacher behaviors have a direct impact on student achievement, and teacher beliefs have an indirect impact on student achievement.
Rowan & Townend (2016)	Teacher Opinions	Early career teachers feel less prepared to teach twice-exceptional students, to create partnership with parents of gifted students, and to teach students with a range of abilities.
Matheis, Kronborg, Schmitt, & Preckel (2017)	Teacher Opinions	Incorrect beliefs about gifted students negatively affect how a teacher treats their gifted students; pre-service teachers are likely to have higher self-efficacy and motivation when they are teaching the students they were told are high ability, and lower self-efficacy and motivation when teaching students they are told are maladjusted or have asynchrony of development.
Tofel-Grehl & Callahan (2017)	Teacher Opinions	Teachers of students who are gifted perceive their students as needing heavy workloads with minimal instructional support to keep them challenged and engaged.
Brigandi, Weiner, Gubbins, Siegle, & Little (2018)	Teacher Opinions	Students who participate in enrichment perceive their school environment more positively,
Colangelo (2018)	Teacher Opinions	Teachers sometimes make comments they view as compliments and students view as insults.
Gagné (2018)	Teacher Opinions	Despite decades of research, there is still no clear view of teachers' opinions towards giftedness.
Olsen (2018)	Teacher Opinions	Teachers often receive little preparation for teaching gifted students before entering the field and feel unsupported by schools and districts.

Study	Theme	Relevant Findings
Russell (2018)	Teacher Opinions	Educators in high school find differentiating to be difficult due to time constrictions, find that they have to have strong social-emotional relationships with their gifted students, and need to be advocates for their students.
Vreys, Ndungbogun, Kieboom, & Venderickx (2018)	Teacher Opinions	Training about gifted can effectively alter teacher beliefs about gifted education and enhance their knowledge, abilities, and self-esteem in modifying the curriculum for gifted students.
Johnsen & Kaul (2019)	Teacher Opinions	Although a majority of teachers agree with research-based practices, teach beliefs lead fewer teachers to implement these practices in the classroom despite seeing positive student outcomes when they do implement the strategies.

Chapter 2 provided a review of the literature about the differentiated model of giftedness and talent, educational plans for students who are gifted, the measurement and assessment of individualized educational plans, and teacher attitudes and opinions about gifted students and their education for the purpose of creating a post-positivist framework for approaching the problem of whether educational plans for students who are gifted can have their quality assessed. Chapter 3 will discuss the methodology of the study, the development of an instrument to assess the quality of educational plans for students who are gifted, and the statistical measures used to analyze the relationship between educational plans for students who are gifted and their teachers' opinions about giftedness.

### CHAPTER THREE: METHODOLOGY

The research questions proposed a two-phase mixed-methods research process. The dependent variable of the first phase, the quality of the educational plan, was measured with a researcher-developed tool. Each aspect of the educational plan was operationalized during the instrumentation process to fully assess the quality of the educational plan. Measures were constructed using two extant individual education plan tools (La Salle et al., 2013; Ruble et al., 2010) the concept of SMART goals (Doran, 1981; Ross et al., 2016), and the resource tool for assessing EPs from the Florida Department of Education (*Resource Guide for the Education of Gifted Students in Florida*, 2017) as a framework for the content, which was extracted from the requirements laid out in Florida Administrative Code Rule 6A-6.030191 (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016).

The second phase of research utilized the Gagné and Nadeau *Opinions about the Gifted and their Education* (OGE) instrument, a widely-used opinionnaire that remains as one of the only tools for measuring teacher attitudes and opinions about students who are gifted (Gagné, 2018). This survey provided an array of independent variables that were examined through a correlational design to determine the relationship between teacher opinions about students who are gifted and the educational plans they helped to create (Fraenkel et al., 2015, p. 393). Items were analyzed using McCoach and Siegle's (2007) constructs as they had a higher reliability than other uses of the instrument (Gagné, 2018). While an item-analysis was completed, a second construct was also created as a dependent variable from the responses on the opinionnaire: overall attitude towards giftedness, which was expressed as either a positive (mean greater than or equal to 4.5) or negative value (mean less than 4.5).

## Participants

The part of the population that this research had access to was 2,370 students who were identified as gifted in an urban school district in Central Florida. Due to the lengthy nature of the identification process for special services in Florida schools and the fact that new students enter the gifted population on a regular basis, the parametric data for the entire gifted population of this school district was pulled into a database shortly after approval from the study's institutional review board. Students added to the population at a later point in time were not considered in the study. The database contained the following variables for each student: (a) ID number, (b) current school of attendance, (c) current grade level, (d) age, (e) race and ethnicity, (f) weighted and (g) unweighted grade point average, (h) English language learner status, (i) free-and-reduced lunch status, (j) prior year reading assessment scores, and (k) prior year mathematics assessment scores. To ensure accuracy of the data and results, all students' current educational plans were also pulled into the database at the same time. Each student in the database was assigned an *EP code* based on an alphabetized list of student names within a stratified list of schools to ensure representation within the sample was aligned with the size of the gifted population at each of the 65 schools within the population. For a population of 2,370 and a confidence level of 95% with an interval at +/- 5%, a sample of at least 330 students was needed in order to examine medium effects. A decision was made to only examine medium effects as the sample need to examine small effects would not have been feasible within the examined population. A g-power confirmatory analysis for this study can be found in Appendix I.

A true random sample was taken from the stratified school list using a random number generator with the random numbers match to each students' EP code. After the random match, the educational plans for each student were downloaded and saved on a secure server. After the

330 educational plans had been pulled into the database, seven additional educational plans were pulled from seven different schools that were not in the random sample to ensure that every school that generates educational plans was represented in the population, creating a stratified random sample of 337 documents. The sample data accurately mirrored the stratification of students by grade level, which can be seen in Table 2.

Table 2

*Gifted Population Grade Level Demographics versus Stratified Random Sample Grade Level Demographics*

Variable	Population	Sample	Pop Percent	Sample Percent
Elementary Gifted Students	589	78	24.85%	23.14%
Middle School Gifted Students	746	113	31.48%	33.53%
High School Gifted Students	1027	146	43.33%	43.33%
Total Number of Gifted Students	2370	337	99.66%*	100.00%

\*N-wise missing percentage due to students without an identified grade level in school district databank software

The type of school (charter or district-managed) that students attended can be seen in Table 3. Here, the random sample representation was slightly higher than the population representation due to the fact that five of the seven schools that were added to the sample to ensure representation were charter schools.

Table 3

*Gifted Population School Type Demographics versus Stratified Random Sample School Type Demographics*

Variable	Population	Sample	Pop Percent	Sample Percent
Charter School Gifted Students	226	37	9.53%	10.97%
District Managed School Gifted Students	2144	300	90.47%	89.03%
Total Number of Gifted Students	2370	337	100.00%	100.00%

For the second phase of the research, the *Meeting Participants* forms commensurate to each educational plan in the sample were collected and analyzed. These forms have multiple entry lines to denote the names of all participants included in the educational plan meeting, including but not limited to, the names of the (a) parents, (b) student, (c) local educational agency representative (LEA), (d) general education teacher, (e) gifted teacher, and (f) interpreter of instructional implications of evaluation. Each general education teacher and gifted education teacher was pulled into a purposive sample and their certificates were analyzed to determine if they had completed a gifted endorsement program. In the examined school district, teachers who complete five sixty-hour courses in the areas of the nature and needs of gifted education; the development of curriculum for students who are gifted; the theory of creativity; special populations of gifted; and guidance for students who are gifted can apply for their gifted endorsement. Ostensibly, education about the development of educational plans should be explicitly provided during this 300-hour endorsement program, specifically during the course about developing curriculum, although examining the fidelity of the training around EPs provided to teachers was outside of the scope of this study. Exactly 284 teachers were identified in the purposive sample. These teachers in the sample were then sent the *Opinions about the Gifted and their Education* (OGE) opinionnaire (Gagné & Nadeau, 1991).

#### Instrumentation

Instrumentation for this study included two instruments: The Education Plan Quality Assessment, a researcher-developed instrument, and the *Opinions about the Gifted and their Education* opinionnaire, an extant instrument. Both instruments required extensive testing in multiple methods to establish validity and reliability for the current research.

## First Phase: The Education Plan Quality Assessment

For the first phase of research, multiple tools for rating students who receive exceptional services' individual educational plans were reviewed, including instruments by Maher and Barbrack (1980), Ruble et al. (2010), La Salle et al. (2013), the State Education Resource Center of Connecticut (2013), and the Florida Department of Education (Resource Guide for the Education of Gifted Students in Florida, 2017). A majority of the tools are only tangentially related to the goal of evaluating the educational plans of students who are gifted due to the differences between the needs of students who are gifted and students with disabilities. The instrument from the Florida Department of Education (2017) directly related to educational plans for students who are gifted, but lacked specific criteria for scoring, was vague in descriptions of expectations for individual elements of a quality educational plan and did not provide an overall score or assessment on the educational plans reviewed. As such, a researcher-developed tool was needed for the evaluation of educational plans. As the tool developed by Ruble et al. (2010) was the most robust of the reviewed tools as it provided a rubric that turned small, qualitative judgments about elements of the educational plan into specific scores. The Ruble instrument also had the highest utility for answering the research questions for this study, it was selected as a framework for establishing a new instrument for assessing the quality of educational plans. Permission to update the instrument was obtained on March 14, 2019 (Appendix B).

Ruble et al.'s (2010) tool measured the following variables on a scale of zero to two (a zero indicated a complete absence, a one indicated a partial presence, and a two indicated a complete presence): demographics; writer of IEP; related services; communication status; academic performance; health, vision, hearing, and motor abilities; social and emotional state; general intelligence; present levels of performance; parental concerns; goals and objectives;

benchmarks; measures of performance on goals; methods of measurement; criterion for goal acquisition; and meeting notes. While some of these variables are applicable to the EP, such as the scoring around the present levels of performance, the instruments needed revision to be applicable to educational plans for students who are gifted, though it certainly provided a useful template for creating a new instrument for assessing quality.

The State of Florida provides guidance for educational plans through Rule 6A-6.030191 (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016). The requirements laid out in this law provided the content for the questions in the instrument. A complete measure of how each segment of the rule became an item in the instrument can be found in Appendix C. The content was merged with the concept of SMART goals, goals that are specific, measurable, attainable, relevant, and time-bound (Doran, 1981; Ross et al., 2016), in order to expand on requirements for the goals in an academic setting. From this framework, an initial draft of the Education Plan Quality Assessment was developed. Recommendations from the literature around the measurability of goals, strength-orientation, and evaluation methodologies for effective gifted programming were also considered as a function of measure development (S. M. Baum, personal communication, May 19, 2019; Baum & Novak, 2010; Brown, 2012; Gagné, 2015; McCoach & Siegle, 2007; Renzulli, 2013; Ross et al., 2016; VanTassel-Baska, 2006).

Only five items on the final tool did not find their roots directly from the Development of Educational Plans for Exceptional Students Who Are Gifted (2016) rule (#A.1, #A.2, #B.9, #B.11, #D.32), which were created either from Ruble et al.'s (2010) tool or based on feedback from the initial cognitive lab. One item based on Rule 6A-6.030191 (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016) was heavily altered (#A.8) to



negative feedback from both cognitive labs and pilot assessments (Strengths and Interest section of Present Levels of Performance has numerical data showing evidence of student achievement strengths) to relate the numerical data present specifically to student strengths (S. M. Baum, personal communication, May 19, 2019).

In order to increase the content validity of the items and allow for common interpretations of plans between raters, a potential area for error given the qualitative nature of the items, the language around the goals on the educational plans was altered to fit the SMART framework (Doran, 1981; Ross et al., 2016). This included altering the language around the EPQA items related to goals to include the terms *specific* (#B.8, #B.16), *realistic* (#B.10, #B.18), and *time-bound* (#B.12, #B.20). While *measurable* is part of the SMART framework, it was also already included in the instrument from the content of Rule 6A-6.030191 (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016; Doran, 1981; Ross et al., 2016). *Assignable*, Doran's (1981) construct of ensuring the goal could be assigned to a single person in particular, was not utilized as it did not align with the content of the instrument. However, Ross et al.'s (2016) construct of *attainable*, that the goal is something that could be attained by the student, has been utilized in the educational context and was applicable for use in the EPQA instrument.

### Cognitive Lab

After the initial draft of the Education Plan Quality Assessment (EPQA) was developed, a cognitive lab held with Dr. Susan Baum, an expert in the field of twice-exceptional gifted students, and a professional with experience with both gifted students and individual education plans. Given that Dr. Baum has served on the board of directors for the National Association for Gifted Children, has won awards around her contribution to twice-exceptional gifted students

and the individual education plans, and has published numerous books and articles around the field of exceptional education for students who are gifted, she has the expertise needed to provide valid input to the development of the instrument. A cognitive lab is a process in which a participant is asked to complete a task, in this case completing the analysis of an educational plan using the EPQA, and to verbalize the cognitive process that they engage in during their task completion, potentially tracking their behavior and attitude to make conclusions (Lazarus et al., 2012; Zucker et al., 2004).

The cognitive lab with Dr. Baum was utilized to ensure that the instrument had suitable face validity and to examine which items may cause participants to potentially struggle. Dr. Baum expressed difficulties with items #A.3, #A.5, #A.6, #B.15, and #B.23 (S. M. Baum, personal communication, May 19, 2019). The transcript of her cognitive lab can be found in Appendix D.

In response to the commentary from the cognitive lab, item #A.3 was adjusted to indicate positive parent interactions with the school rather than negative ones by changing the phrase “concerns of the parents” to “concerns/desires of the parents” in the EPQA. Various grammatical and capitalization changes were also made to prevent syntax reading errors for future readers.

Dr. Baum also expressed concerns that educational plans in Florida do not provide the opportunity to examine whether students who are gifted are being afforded the opportunity to do work that is different from the regular curriculum rather than in addition to, which led the additional language of “with an eye toward differentiation rather than increased workloads” being added to questions #B.15 and #B.23 (S. M. Baum, personal communication, May 19,

2019). An item related to numerical data around student strengths and interests was also removed at a later date in part due to Dr. Baum's negative opinion of the question.

### Instrument Pilots and Reliability

Once the tool was developed and the cognitive lab was held with an expert in the field, items were updated to further provide coding advice for users of the instrument. Then, a pilot study of the instrument was conducted in order to determine what the initial reliability of the instrument was before making further changes to the instrument.

The first pilot study had seven experts in the field – teachers and administrators who oversaw the implementation of district-wide services for gifted students from multiple school districts in Central Florida area - assess two educational plans not in the random sample using the instrument. Their responses were recorded. In the initial pilot, participants were told that an item had to score a “2” to be considered optimal, or a “1” to be considered partially successful, though no further discussion of items or expectations occurred. On the initial pilot review, 17 of the 32 items had an inter-rater exact agreement higher than .80. Two of the raters had an inter-rater exact agreements of .875, though the overall exact agreement between the seven cases of the pilot was low (Ruble et al., 2010). After the pilot, feedback was utilized to alter the items with low exact agreement for greater clarity. Some binary items were found to place too much weight on compliance measures and were changed to “0” or “1” instead of “0” or “2” to reduce this effect. Additionally, a discontinue condition, which provides a reason to stop scoring the goal section if certain criteria are met, was added to Part B of the EPQA in order to account for poorly written goals designed to only assess the classwork a student was already required to complete rather than providing challenging to help the student grow, a necessary function of

gifted education and also a requirement of the K-12 frameworks for gifted education in the state of Florida (Reis & Morales-Taylor, 2010; Renzulli, 2013; Weber et al., 2013; Willis, 2007).

As the only source of error in a reliability analysis could be from the raters (the items are stable and non-random), a two-way random intraclass correlation coefficient was also run and found a Cronbach's  $\alpha = .824$ . The average measures of intraclass correlation coefficients for one-way random effects were equal to .821 and .822 for two-way random effects, which can be seen in Table 4. This indicates a good reliability (Cronbach's  $\alpha$  score  $>.70$ ) for the instrument and indicated that few changes needed to be made to the Education Plan Quality Analysis Instrument before it could be utilized in reviewing the educational plans of students who are gifted (Koo & Li, 2016).

Table 4

*Intraclass Correlation Coefficients for the Education Plan Quality Analysis Instrument (EPQA) Pilot 1*

Average Measures	Intraclass Correlation	<i>df1</i>	<i>df2</i>	Value	Sig
One-way random effects	.821**	30	186	5.592	.000
Two-way random effects	.822**	30	180	5.688	.000

\* $p < .05$ , \*\* $p < .01$

After these adjustments, a second pilot took place in an attempt to increase the intraclass reliability for the instrument above .90, an excellent measure of reliability (Koo & Li, 2016). This pilot was done not with experts in the field, but with certified teachers who have their gifted endorsements. This was done to ensure that the tool was reliable even if the person utilizing the instrument was not a professional with an extensive background in the education of students who are gifted. A two-way random intraclass correlation coefficient was run and found a Cronbach's  $\alpha = .881$  (see Table 5). The difference in degrees in freedom between the first and second pilot

account for both the fact that there were fewer participants in the second pilot, and that an additional item had been added to the instrument.

Table 5

*Intraclass Correlation Coefficients for the EPQA Instrument Pilot 2*

Average Measures	Intraclass Correlation	<i>df1</i>	<i>df2</i>	Value	Sig
One-way random effects	.711**	31	62	8.369	.000
Two-way random effects	.881**	31	62	8.369	.000

\* $p < .05$ , \*\* $p < .01$

Finally, the researcher sat with two professionals in the field and continuously scored educational plans not in the sample until interrater exact agreement exceeded .80 (Ruble et al., 2010). This ensured that the instrument was capable of reliably providing the data needed for assessment of quality, and also that the researcher had a suitable level of expertise in order to be considered a connoisseur for the evaluation of the plans (Stufflebeam & Webster, 1980).

Second Phase: *Opinions about the Gifted and their Education* Opinionnaire

There are two (of four) applicable general questions that could be applied to the current target construct when researching attitudes of teachers towards their gifted students (Gagné, 2018; Pratkanis et al., 1989):

1. What attitude(s) do people hold about a particular target construct?
2. To what extent do specific attitudes predict associated behavior?

For the second phase of research, the extant instrument implemented was the most recent version of Gagné and Nadeau's (1991) *Opinions about the Gifted and their Education* opinionnaire allowed for the study to answer the general questions about teacher beliefs in a way that supported data analysis between qualitative and quantitative phases (Creswell & Clark,

2011). While Gagné and Nadeau (1991) initially divided their items into several factorial subscales (needs and support, resistance to objections, social value, rejection, ability grouping, and school acceleration), McCoach and Siegle (2007) found in a confirmatory factor analysis that the subscales lacked convergence (Gagné, 2018). Instead, this study utilized McCoach and Siegle's (2007) subscales of support ( $\alpha = .76$ ), elitism ( $\alpha = .80$ ), acceleration ( $\alpha = .71$ ), and self-perceptions ( $\alpha = .94$ ) in order to collect an attitudinal score for each teacher. The reliability of all parts of this instrument are greater than  $\alpha = .70$  using Cronbach's alpha (Gagné, 2018; McCoach & Siegle, 2007). Each item in the subscales had teachers reporting on a seven-point Likert-type scale and data for subscales was collected as a mean of the response values. These four subscales comprised the independent variables to be tested against the EP quality measure from the EPQA.

The opinionnaire, in the form of the 2007 revision, was entered into Qualtrics and sent to every teacher in the sample as identified from their signatures on the educational plans. Permission to conduct the survey was obtained from both the University of Central Florida (Appendix E) and the examined school district (Appendix F). Additional information on number of years working with gifted students, number of years teaching, teacher age, teacher race, and teacher gender were collected for use as analysis variables (Ruble et al., 2010). The 284 identified teachers were entered into the purposive sample and contacted to complete the opinionnaire (Appendix G). Given that these plans may last as long as four years before being rewritten, multiple teachers had left and were unable to be contacted for this research. A total of 62 participants were removed from the pool due to teacher attrition during the time since the educational plan was written, leaving 222 teachers in the purposive sample. In order to attempt to control for bias in the data collection results, the survey was sent and collected through the

Central Florida school district's research department. This was done to help control for potential reporting bias effects and work to assuage the "letterhead effect" impact on responses that may have arisen from seeing the researcher's name attached to the top of the opinionnaire (McCoach & Siegle, 2007; Schwartz, 1999). The information within Table 6 shows the items used for the opinionnaire. The data in Table 7 summarized the variables and their matches between teacher, student, and EP characteristics.

Table 6

*Opinions about the Gifted and their Education Subscales and Scoring*

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Subscale 1. Support (from McCoach & Siegle, 2007; Gagne & Nadeau, 1991: 5 questions, alpha = .76)

1. Our schools should offer special education services for the gifted.
2. The gifted need special attention to fully develop their talents.
3. Tax payers should not have to pay for special education for the minority of children who are gifted. (Reverse scored)
4. Since we invest supplementary funds for funds for children with difficulties, we should do the same for the gifted.
5. All special programs for the gifted should be abolished. (Reverse scored)

Subscale 2. Elitism (from McCoach & Siegle, 2007; Gagne & Nadeau, 1991: 6 questions, alpha = .80)

6. Special programs for gifted children have the drawback of creating elitism.
7. Special educational services for the gifted children are a mark of privilege.
8. When the gifted are put in special classes, other children feel devalued.
9. By separating students into gifted and other groups, we increase the labeling of children as strong-weak, good-less good, etc.
10. The gifted are already favored in our schools.
11. Gifted children might become vain or egotistical if they are given special attention.

Subscale 3. Acceleration (from McCoach & Siegle, 2007; Gagne & Nadeau, 1991: 4 questions, alpha = .71)

12. Most gifted children who skip a grade have difficulties in their social adjustment to a group of older students.
13. Children who skip a grade are usually pressured to do so by their parents.
14. When skipping a grade, gifted students miss important ideas. (They have holes in their knowledge.)
15. A greater number of gifted children should be allowed to skip a grade. (Reverse scored)

Subscale 4. Self-perceptions (from McCoach & Siegle, 2007: 5 questions, alpha = .94)

16. I was or could have been in a gifted program in school.
  17. Most of my family and friends consider me gifted.
  18. I am gifted.
  19. Most of my family and friends are gifted.
  20. People consider me gifted.
-



Table 7

*List of Variables*

	Teacher Characteristics	Student Characteristics	EP Characteristics
Dependent variable			- EP quality score
Independent variables	<ul style="list-style-type: none"> <li>- Overall “Opinion about the Gifted and their Education” score</li> <li>- Support subscale score</li> <li>- Elitism subscale score</li> <li>- Acceleration subscale score</li> <li>- Self-perception subscale score</li> </ul>		
Moderator variables	<ul style="list-style-type: none"> <li>- Age</li> <li>- Years taught</li> <li>- Years of teaching gifted</li> <li>- Holds a gifted endorsement</li> <li>- Race/ethnicity</li> </ul>	<ul style="list-style-type: none"> <li>- Age</li> <li>- School grade level</li> <li>- School of attendance</li> <li>- Race/ethnicity</li> <li>- English language learner status</li> <li>- SES (Free/reduced lunch status)</li> <li>- Un/Weighted GPA</li> <li>- Most recent ELA assessment scores</li> <li>- Most recent mathematics assessment scores</li> </ul>	<ul style="list-style-type: none"> <li>- Years since writing</li> <li>- Number of endorsed teachers on EP committee</li> <li>- Charter or district-managed</li> </ul>

### Data Collection

With reliable instruments in hand, the 337 educational plans identified in the sample were coded by the researcher. Following the connoisseur methodology, the first ten plans were independently verified by another researcher with expertise in the field to ensure fidelity of the coding process, and a random sample of plans were verified after coding. The scoring process gave each educational plan a total cumulative score by adding all 0-2 points from each variable, allowing for all educational plans in the sample to be ranked in score order. The Education Plan Quality Assessment allowed for measures ranging from 0 to 64. A set of a-priori score ranges for each of the five ranks of quality was initially applied as a baseline, with each rank accounting for thirteen points. After plans had been identified that the researcher considered to be representative of different ranks of quality for educational plans, individuals with experience in the creation of educational plans were consulted to develop cut-scores in order to ensure that the scores represented the judgment of qualified people to the best of their ability (Zieky & Perie, 2006). A small post-hoc adjustment was made to the cut between a score of “1” and a score of “2” to prevent over-ranking in the lowest EPQA score range.

Originally, the study was intended to norm the scores of the plans by rank ordering the scores of each of the plans, applying a quintile range, and utilizing the quintiles to develop normed cut scores for the instrument that could be applied to larger populations. However, after the initial review of a subset of the plans in the sample, it was determined that the quality scores were too clustered to effectively norm reference the scores, and thus the criterion-referenced cut scores were developed instead. After analysis of the plans, assumptions of normality were violated and attempts to redistribute the plans

After an educational plan was scored in each of the categories, the scores were entered into a database in Microsoft Excel, which summed the scores to provide an overall total EPQA score, and then ranked based on a formula designed from the cut scores. The lowest EPQA quality score an EP could receive was a “1” and the highest score a plan could earn was a “5”. A quality measure of “1” represents an educational plan that fails to meet even the basic requirements the state has laid out and a “5” represents a well-developed EP that satisfies all requirements and embodies the “quality” sought after in the research questions. Quality measures were analyzed with frequency distributions.

Table 8

*Cut Scores for the Educational Plan Quality Analysis Instrument*

Quality Measure	Raw Score
5 (Five)	50 – 64
4 (Four)	40 – 59
3 (Three)	34 – 39
2 (Two)	24 – 33
1 (One)	0 – 23

During the analysis, these coded quality measures were utilized as the dependent variable. The results of the EPs were quantitatively analyzed and compared by grade level, school level (elementary, middle, high), school type (charter or non-charter), gender, EP writer, and quality score to identify trends based on these moderator variables. Independent *t*-tests were run between each individual teacher or student factor and the quality of the educational plan to determine if any of the variables moderate the quality of the educational plan (Ruble et al., 2010). An array of statistical tests including regression analysis, multivariate analysis of

variance, and tests of correlation were also utilized here to examine the relationship between the moderator variables, the quality of the EP, and the opinions of the teacher who created the educational plans that were being analyzed.

Following in the lineage of research by McCoach and Siegle (2007), the second phase of research collected the four independent variables (support subscale score, elitism subscale score, acceleration subscale score, and self-perceptions subscale score) and assigned positive scores to the support and self-perception subscales and negative scores to the elitism and acceleration subscales. Then both a multivariate analysis of variance (MANOVA) and multivariate *t*-tests were run to receive a Wilks' lambda and partial eta squared. These statistics were used to determine if there was a relationship between the attitudes and opinions teachers hold about the education of students who are gifted and the quality of the educational plans that they write.

There were quite a few threats to validity inherent in this research design. Location threat remains large since all EPs are written by teachers trained within the same district. To the best of the ability of the available population, this was accounted for by stratifying the sample so that each school in the sample was represented fractionally. Yet, the fact remains that the entirety of the sample hails from a single district where all writers of EPs were ostensibly trained in a similar manner, at least if the teachers received their gifted endorsement in Florida.

Since all of the data reviewed was extant, testing threats were not a concern. The next major threat to internal validity that needed to be accounted for in this study was instrument decay. Since all educational plans were reviewed by the research after validity was established, the potential for exhaustion and bias in the review of all 337 documents existed. While strong training to reach a high intra-rater reliability for the research helped assuage some of this bias, external controls had to be applied. Eleven educational plans were reviewed at the same time

each day for 30 days (12 on the first four days) to decrease the threat that instrument decay created, although it is unlikely that the threat was eliminated in its entirety. It took approximately three minutes to review each plan, equating to roughly 33 minutes of scoring per day, although additional time was taken for the initial dozen plans both for minor clarifications to the scoring schemata (detailed further in chapter 4), and for review of the analysis by a second, independent researcher for validity. Finally, as with all research, mortality threats existed with teachers who left the district after they had been selected for the sample, thereby decreasing the strength of the survey data. This accounted for 62 teachers during the study.

### Data Analysis

Once all of the data were collected, an analysis was undertaken. A data layout was designed in Microsoft Excel that allowed for easy qualitative and quantitative coding and matched the teacher opinion scores to the EP scores for plans that they had participated in as a member of the writing team. Once all plans were coded and aligned, the data was exported to the Statistical Package for Social Sciences (SPSS) version 24.0 for analysis. Descriptive statistics were collected and analyzed for both the student sample (first phase) and the teacher sample (second phase).

### Analysis of Research Question One

Research question one: *In what ways and to what extent do educational plans demonstrate quality and reflect established norms and regulations for educational plans?* To answer this research question, data were collected from all plans in the sample and reported as frequencies using the *Educational Plan Quality Assessment* instrument. After the descriptive statistics were presented, the results were compared to the legal framework for educational plans

to highlight strengths and deficiencies in the EP writing process for the analysis of the central Florida school district.

The Educational Plan Quality Assessment results were analyzed item by item to report the descriptive percentages for each occurrence of the result. This was done in order to identify if any emergent trends could be seen in the manner in which educational plans aligned with or defied the established norms for the education of students who are gifted and the laws surrounding the plans based on individual variables such as whether the plans were aligned to student strengths.

#### Analysis of Research Question Two

Research question two: What results emerge from qualitative analysis of educational plans and can trends in the development of gifted educational plans be identified? To answer this research question, as each EP was quantitatively coded to get the EP quality score, qualitative, thematic notes were taken. Educational plans were coded using a constant comparative methodology in which the temporary constructs were identified and refined into second-order constructs, which were then clustered into common themes for qualitative analysis. Member-checking, a traditional methodology for qualitative research, was not employed since the documents in review were printed, historical documents and the interpretation of the document was as the discretion of connoisseur (Stufflebeam & Webster, 1980). After the qualitative notes were taken on every one of the 337 EPs in the sample, a trend analysis was completed using Excel to determine which themes had emerged. The trends that appeared in the greatest quantity were selected for analysis.

After the qualitative analysis was completed, the frequencies of EP quality scores were analyzed by matching them with the schools and their writer to determine if any trends in their

creation and development could be observed through quantitative analysis of the plans. A t-test was conducted using the EP quality score as the dependent variable and different grouping variables (e.g. school level) as the independent variable to determine if they could explain the variance in the quality of educational plans around the examined district. It is important to note that teacher opinion scores towards the education of students who are gifted were not considered in the analyses at this point in the study.

#### Meeting Statistical Assumptions for Research Question Two

A t-test has multiple statistical assumptions, including that there be no significant outliers within the groups being compared, that there be an approximate normal distribution of the independent variables and that there be homogeneity of variances within the grouping of the independent variable (Laerd Statistics, 2015a).

For each grouping variable, SPSS box and whisker plots were employed to determine outliers that were more than one and a half box-lengths beyond the edge of the box. These outliers were examined to determine if there were measurement errors. If there were none and the variable was genuinely unusual, this was explained in the analysis. The test was run twice, once with the outliers in, and one where the outliers were accounted for by matching them to the second least extreme outlier. Then, the variables were examined for normalcy. Highly skewed variables were expunged for this part of the analysis, though their kurtosis and skewness were reported. Finally, for variables that were highly heterogeneous, where the differences were not significant enough for the test to accurately determine the measure, the violation was noted and results reported.

### Analysis of Research Question Three

Research question three: In what ways and to what extent are attitudes and opinions about the nature and education of students who are gifted associated with the quality of an educational plan? The answers to this question required the scores from the *Opinions about the Gifted and their Education* opinionnaire (Gagné & Nadeau, 1991) which were collected and analyzed independently before being compared to the educational plans. Each completed survey received a score from the OGE instrument, which could range from 1.0 to 7.0. Descriptives and frequencies for the survey respondents were observed and analyzed as a continuous, independent variable.

Each educational plan's quality level score (the dependent variable) was aligned with the opinion score (independent variable) from the teacher who wrote the plan and analyzed using both a comparative research methodology (an analysis of variance), and a correlational methodology (Pearson's  $r$ ) in order to determine what, if any, relationship could be identified. The correlation measured the association between the two variables by comparing the continuous EPQA total score variable and the continuous mean opinion score variables to determine the relationship. The ANOVA measured the difference between educational plan quality score and the opinion score of each respondent, and provided an  $F$  score to the degree in which the scores were different, by comparing the continuous opinion mean score variable against the categorical opinion EPQA level score (one to five) from the plans that the respondent teachers had completed. In this phase of analysis, educational plans that were written by a team of teachers were recorded twice (once for each teacher) to better determine the impact an individual may have had on multiple plans.



### Meeting Statistical Assumptions for Research Question Three

The correlation has three major assumptions: that there is a linear relationship between the variables, that there are no significant outliers, and that there is bivariate normality (Laerd Statistics, 2018). The linearity of the relationship between the EPQA scores and the OGE scores was examined as part of the correlational analysis. The significant outliers were examined in the same manner as for question two: through the use of a box-and-whisker graph exploration of outliers, and tests run both with the outliers included, and the outliers altered to dampen their impact on the standard deviation. The test for bivariate normality was accounted for with a normality plot test examining the normal nature as well as the kurtosis and skewness of the scores, as well as a Shapiro-Wilk test for normality.

The assumptions for the analysis of variance for within-subject factors were mostly covered by the previous explorations, but one additional assumption, that of sphericity, had to be accounted for with a test. To reduce the chance of a Type I error from being made, a Mauchly's test of sphericity was run at the time of the ANOVA to determine whether sphericity between the two scores existed (Laerd Statistics, 2017). For any tests that violated the assumption of normality for an analysis of variance, a Kruskal-Wallis H test was run, as the results were already aligned to meet the statistical assumptions of an H test and only had to have their distribution examined for shape. The results of these analyses are reported in chapter four.

### Analysis of Research Question Four

Research question four: In what ways, if any, is the relationship between the EP quality score and teacher attitudes and opinions moderated by the student and teacher characteristics? To answer this research question, a MANOVA was completed between the Educational Plan Quality Assessment (EPQA) total scores, the *Opinions about the Gifted and their Education*

(OGE) mean opinion scores, and the moderator variables of both the teacher and the student in order to determine if some of the variance in scores could be explained by teacher or student characteristics. Under this statistical analysis, both the EPQA scores and the OGE scores were treated as dependent variables, and the teacher and student characteristics were utilized as independent variables. The benefit of this analysis was that it allowed for a more thorough examination, particularly of the teacher characteristics, of the biases that may be present in the creation of educational plans.

#### Meeting Statistical Assumptions for Research Question Four

There were an array of statistical assumptions for a MANOVA that had to be accounted for in the analysis: that there were no multivariate or univariate outliers, that there was multivariate normality, that there was no multicollinearity, that there is an adequate sample size for each independent variable grouping analyzed, that a linear relationship existed between the dependent variables for each group of independent variables, and that there was homogeneity of both variance and covariance (Laerd Statistics, 2015b).

By the start of this analysis, the tests for outliers, normality, and linearity had already been established for the analyzed variables. To test for multicollinearity, a bivariate procedure was conducted in SPSS between the two dependent variables. To test for homogeneity, a Levene's test of equality of variance and a Box's M test of equality of covariance were run and reported. The final assumptions that had to be accounted for were the sample size of each independent variable group. Given that the only EPQA scores in the dependent variable group were those that aligned with the participants in the OGE score group, the sample size for the two dependent variables were equal. Analyses then depended on the size and variance of the characteristic groups. Overly small representation of some moderators in the sample prevented

some moderator variables from being examined as the number represented in the sample was too small. This was reported as it occurred in chapter four.

### Summary

This chapter examined the methodology of the two-phase study that was undertaken to examine the relationship between the quality of educational plans created in a central Florida school district and the opinions towards giftedness that the creators of those plans held. The creation of the Educational Plan Quality Assessment and the implementation of that instrument and the *Opinions about the Gifted and their Education* opinionnaire were detailed. The EPQA was found to have an alpha of .881, and the subscales on the OGE were all found to be greater than  $\alpha = .70$ . The subscales of the OGE were: support ( $\alpha = .76$ ), elitism ( $\alpha = .80$ ), acceleration ( $\alpha = .71$ ), and self-perceptions ( $\alpha = .94$ ).

The procedures for data collection, sampling method, statistical analysis, and reporting of the results were all outlined and methodologically presented. Each research question was examined in relation to the necessary analytical methodologies and needed tests in order to ensure proper safeguards for data analysis. Additionally, procedures for accounting for assumptions of the statistical tests utilized by each of the individual research questions were examined and the decisions about how to handle violations of the assumptions in the analysis were presented.

The methodology implemented for data collection and analysis was presented throughout chapter three. The results of the data collection, as well as a full analysis of the data, is presented in Chapter Four.

## CHAPTER FOUR: FINDINGS

### Introduction

This study was conducted to gather data about the quality of educational plans and the opinions towards giftedness of the teachers who write the plans. Data were collected from two instruments: The Educational Plan Quality Assessment (EPQA) instrument, and the *Opinions about the Gifted and their Education* (OGE) opinionnaire. Additional data were collected from a) the survey in relation to the teacher characteristics and b) the student database of the examined school district in relation to the student characteristics for utilization in analysis of the plans for the students for which they were written. All data were analyzed to determine if any statistically significant relationships or differences existed between the quality of the plans and the opinions of the teachers and whether those relationships and differences were moderated by the school, teacher, or student variables.

The educational plans analyzed were pulled from a random sample of all EPs for gifted students at school sites in the observed school district and examined across the four subsections of the EPQA instrument: present levels of performance indicator scores, measurable annual goals score, exceptional education services scores, and general attributes score. The scores for each of the subsections were summed to create the EPQA *total quality score* and a cut score was applied to determine the *EPQA level* of each educational plan. The total quality scores were represented as a continuous variable score from 0 to 64, and the EPQA levels were represented as a categorical score from one to five.

From the sample of educational plans, all teacher participants were identified and contacted to participate in the OGE opinionnaire. The survey featured a seven-point Likert-type response and carried a weight from one to seven points. Each item corresponded to one of the

four subsections of *support, elitism, acceleration, and self-perceptions*. A mean score was received for each of the four subsections. Another mean was derived from the sum of all item responses, which created an overall *opinion score*, represented as a continuous variable score from one to seven. Moderator variables collected as teacher and student characteristics from both the OGE survey and the student database employed by the examined school district were compared against both the opinions scores and total quality scores.

Chapter four has been organized into three sections. The first section presents an analysis of the qualitative phase of the study, covering both research question one and research question two. The second section covers the quantitative phase of the study, including an analysis of research questions three and four.

#### Population and Sample Characteristics

While multiple descriptive analyses are presented throughout the chapter to ease the analysis needed at various levels of differing statistical tests, the data in Tables 9 and 10 demonstrate the general characteristics of both the teacher sample from the second phase of study and the student document sample from the first phase of study. The student sample of 337 educational plans was relatively evenly distributed across the three levels of schools, with 23% of the plans ( $n = 79$ ) coming from elementary schools, 34% of plans ( $n = 112$ ) coming from middle schools, and 43% ( $n = 145$ ) of plans coming from the high school level. This distribution is well aligned with the total population of the district, which was distributed as 25% (elementary EP,  $N = 589$ ), 31% (middle school EP,  $N = 746$ ), and 43% (high school EP,  $N = 1027$ ) respectively. The sample represented was 52% male and 48% female, also in alignment with the larger district population. The sample mostly represented Hispanic and White students in public schools, 37% of whom received free or reduced lunch.

Table 9  
*Demographic Characteristics of the Teacher*  
*Sample (n = 50)*

Characteristic	Percentage
Education level represented	
Elementary	38%
Middle	34%
High	28%
Gender	
Male	8%
Female	92%
Ethnicity	
Amer. Indian/Alaskan Native	0%
Asian American	0%
Black or African American	6%
Caucasian	82%
Hispanic or Latino	10%
Native Hawaiian/Pacific Islander	0%
Missing	2%
Years of teaching	
0 – 5 years	8%
6 – 10 years	12%
11 – 15 years	34%
16 – 20 year	24%
21 or more years	22%
Years of teaching gifted students	
0 – 5 years	40%
6 – 10 years	46%
11 – 15 years	6%
16 – 20 years	6%
21 or more years	2%
Holds a gifted endorsement	
Yes	72%
No	28%
Highest level of degree earned	
Bachelor's degree	38%
Master's degree	48%
Specialist degree	8%
Doctorate	6%

Table 10  
*Demographic Characteristics of the Student  
 Educational Plan Sample (n = 337)*

Characteristic	Percentage
Education level represented	
Elementary	23%
Middle	34%
High	43%
Gender	
Male	52%
Female	48%
Ethnicity	
Amer. Indian/Alaskan Native	1%
Asian American	7%
Black or African American	11%
Caucasian	30%
Hispanic or Latino	50%
Native Hawaiian/Pacific Islander	1%
Missing	0%
School type	
Public school	89%
Charter school	11%
English language learner	
Yes	6%
No	94%
Free/reduced lunch status	
Free	34%
Reduced	3%
Not Eligible	63%
Grade point average (n = 148)	
0.0 to 1.0	0%
1.0 to 2.5	11%
2.5 to 3.0	18%
3.0 to 4.0	71%

The response rate for the OGE opinionnaire was 22.5% ( $N = 222$ ,  $n = 50$ ). The teachers in this sample were majority female (92%), majority Caucasian (82%), mostly had spent fewer than ten years working with gifted students (86%), and most worked in public school (90%). There was a distribution of degrees earned between Bachelor's (38%) and Master's (48%), but only a small portion (14%) of teachers in the sample had earned a degree higher than a Master's degree. The preponderance of teachers in the sample (72%) had earned a gifted endorsement for completing 300-hours of targeted professional learning in the subject of giftedness, including education on the needs of the gifted and curricular development. It is also critical to note that due some results may be skewed due to the overrepresentation of female teachers in the sample.

#### First Phase: Educational Plan Quality Assessment

The first phase of the study employed the EPQA instrument to examine the quality of educational plans in a single school district in central Florida. Utilizing the EPQA instrument, 337 educational plans written for gifted students were coded across 34 items under four subscore sections, which were each analyzed quantitatively. Each educational plan also had notes taken using a constant comparative methodology in which the data were explored, temporary constructs were identified and refined into second-order constructs, and then clustered into common themes. Given that the documents in review were extant, printed documents rather than interviews or other live data, member-checking, a traditional methodology for qualitative research, was not employed. In order to present the analysis with the maximum clarity possible, the quantitative and qualitative analyses of the data are presented independently. Before an analysis of the research questions, however, difficulties in coding and the decisions made regarding plan coding, as a result, are presented here to ease future use issues with the EPQA instrument.



## Issues Coding with the Educational Plan Quality Assessment

As the coding began for the 337 educational plans in the sample, issues started to arise as aspects of the written plans were sometimes produced in such a way as to defy the sensitivity of the EPQA instrument. In each of these cases, a decision related to the coding was made, and all items on plans prior to the decision were re-evaluated based on the new coding decision, in line with constant comparative methodology, in order to ensure that the coding of the plans was accurate. The decisions are presented here in order to which EPQA items they relate. Samples from educational plans presented from figures were deidentified in order to protect student information. In these cases, the written student name was replaced with the random sample number assigned to the EP from the initial data collection. It is also important to note that the Portal to Exceptional Education Resources (PEER), the system in which EPs in multiple Florida counties are created and stored, formats the EPs by presenting the guiding text in unbolded font, and the text written by the EP writer in bolded font, which will be observed in following figures.

### Part A Coding Issues

- Item #A.4 asks if the Present Levels of Performance (PLP) segment of the EP identifies students' strengths. While many students had data related to their strengths, it was reported as simple metrics with no norm-reference or measure of interpretation. This often required research to determine if a score presented was indeed a strength as many EP writers simply reported all educational data available in the present levels of performance. An example of how vague a strengths statement could be is presented in Figure 3. In these cases, if the reported metrics indicated a student was at least one standard-deviation above the mean for the district, a score of "1" was assigned for vaguely identifying a strength. Otherwise, a score of "0" was assigned.

Based on the strengths and interests of the student and the results of recent evaluations, including class work and state or district assessments, the student is able to:

**Student 1403 achieved a 1181 SS with a GE of 10+ on the most recent STAR Reading test administered February 2016.**

*Figure 3.* Example of Student Strengths and Interests Statement in PLP from EP 1403

- Item #A.5 examines whether the strengths and interests statement on Present Levels of Performance segment of the EP denotes the interests of the student. EPs sometimes contained information about student interests mentioned in the notes section, but not in the PLP. These EPs were still scored a “0” for item #A.5 as the item specifically sought to measure if the student interest was mentioned in the Present Levels of Performance segment of the educational plan.
- For item #A.7, the coder must determine whether the EP needs statement identifies a student need for their educational services. Multiple EPs identified the area of need simply as *enhanced curriculum*. During the pilot study, a decision was made to code vague needs statements as a “1” if the plan did not identify a specific area of need, but rather presented generalized needs that could be inferred due to the student’s nature as gifted. However, there was not strong support in the literature for *enhanced curriculum* in the way that there was *enriched curriculum*, *accelerated curriculum*, or *differentiated curriculum*, so the cases of *enhanced curriculum* were assessed as a “0” unless the statement was detailed further. An example of this can be seen in Figure 4.

The student's giftedness results in the need for a special program and/or needs beyond the general curriculum in the following way:

**Student 183 would benefit from an enhanced curriculum.**

*Figure 4.* Example of Student Needs Statement in PLP from EP 183

## Part B Coding Issues

- Part B of the EPQA requires the assessment for two goals, in alignment with the requirements on 6A-6.030191 F.A.C., which delineates a requirement for more than one goal. Some educational plans had three or more goals for the student. As the EPQA is designed to only score a maximum of two goals, the highest quality two goals on the plan were utilized out of the goals present. No points were deducted if one of the unscored goals was unchallenging or actively negative towards the student (as would occur on a plan with only two goals), though a qualitative note about the anti-gifted sentiment was made.
- Items #B.12 and #B.21 examine whether the goal on the EP is measurable. Many writers of EPs simply attached “with 80% accuracy on 4 out of 5 tasks/trials” to goals regardless of whether the actual goal could be measured in terms of accuracy. For example, asking that a student “read above their current grade level with 80% accuracy on 4 out of 5 attempts.” For goals such as these, the score on the measurability item was assigned a “0” if there was no relationship between the goal and the measurement metric and a “1” if there was the slightest logical connection between the measurement requirement and the goal. Examples of a “0” scoring item can be seen in Figure 5, which requires that the student demonstrate growth in research skills with 85% accuracy, unmeasurable due to the binary nature of growth.

### **III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

Goal:

**Student 353 will demonstrate growth in research skills including the acquisition of knowledge, concepts, theories, application, and evaluation in selected areas of interest, such as mammals, with 85% accuracy or higher on 3 out of every 4 assignments.**

*Figure 5. Example of Goal Without Measurability from EP 353*

A “1” score item in Figure 6, which requires the measurement of “develop[ing] strategies”, is not easily measurable but at least has some association with the real-world problems the goal seeks to assess.

### **III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

Goal: **Student 328 will develop strategies to solve complex and beyond grade mathematical real world problems with 80% in 4 out of 5 cumulative assessments**

*Figure 6.* Example of Goal with Vague Measurability from EP 328

- Items #B.14 and #B.23 asked the reviewer to determine whether the goal identifies the method of assessment to be utilized in determining if the student is meeting the goal. There was difficulty in coding EPs that utilized statements such as “the goal will be measured with an assessment” or “the student will score 80% on assessments.” In these cases, a score of “1” was assigned as in alignment with the overall code of “1” representing incompleteness or vagueness.

### **Part C Coding Issues**

- On item #C.29, the evaluator decides whether the services identified in the EP are appropriate for the grade level based on the state gifted plan. Multiple EPs had “gifted services” written here rather than a specific service the student would receive, which was difficult to score. Given that the EPQA delineates this item as a present/not present binary option, and as the statement did identify some form of service that was not totally inappropriate (such as individual student consultation would be for a student in elementary school), a score of “2” was given to these EPs for this item.
- Item #C.30, which aligns with the 6A-6.030191 F.A.C. requirement for the EP to have a “statement of the specially designed instruction to be provided to the student”

(Development of Educational Plans for Exceptional Students Who Are Gifted, 2016, para. 32) created difficulty in coding whether the statements presented were thorough enough to detail *how* the services were going to be provided. In the case of simple statements such as “enrichment” or “consult”, a score of “1” was assigned due to the vagueness of the statement.

#### Part D Coding Issues

- Item #D.31 requires a code of “0” for an EP that comments negatively on a student, and a “2” for an EP that is strengths-based. There was difficulty in coding EPs that did not recognize a student’s strengths, yet also were worded positively and did not negatively comment on the student. These were given a score of “1”.
- For students with IEPs rather than EPs, the duration of the document must be one year. This created an issue with item #D.33, which examines whether the EP covers an amount of time equal to three years (four years for high school students), the amount of time that an EP should last according to 6A-6.030191 F.A.C. A decision was made to code a correctly-designed IEP that lasted for one year in the same manner that a correctly-designed EP would be coded, assigned a score of “1” (the highest score for item #D.33). The full scoring instrument can be found in Appendix A.

#### Research Question One

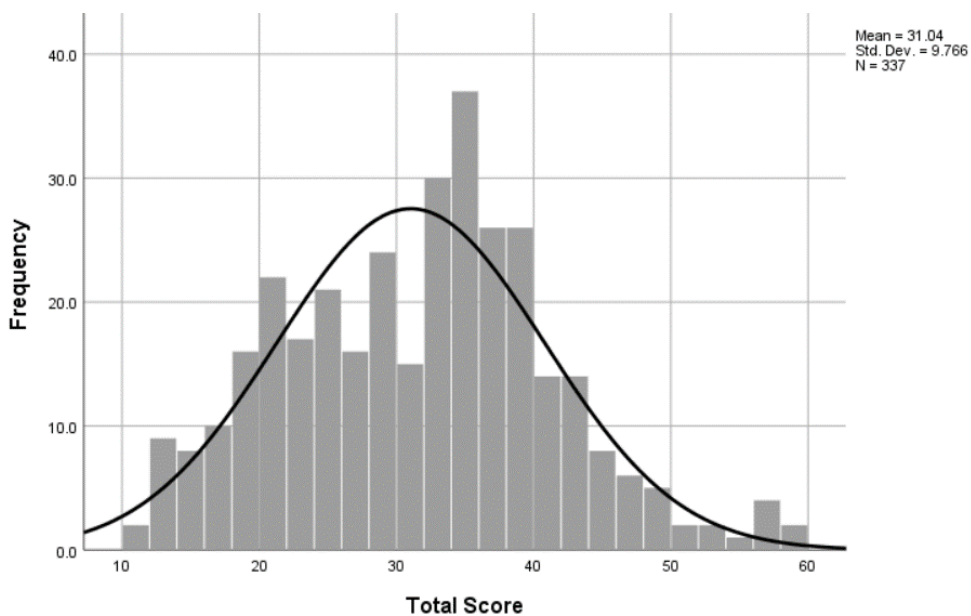
Research question one was posited as: *In what ways and to what extent do educational plans demonstrate quality and reflect established norms and regulations for educational plans?*

To answer research question one, a quantitative approach was employed to examine how well the educational plans demonstrated quality and aligned with the expectations of state regulations as presented in 6A-6.030191 F.A.C. (Development of Educational Plans for Exceptional

Students Who Are Gifted, 2016). Moreover, the differences in plan quality across an array of grouping variables were examined to determine if any norms or quantitative trends emerged between the quality differences.

### Quality of Educational Plans

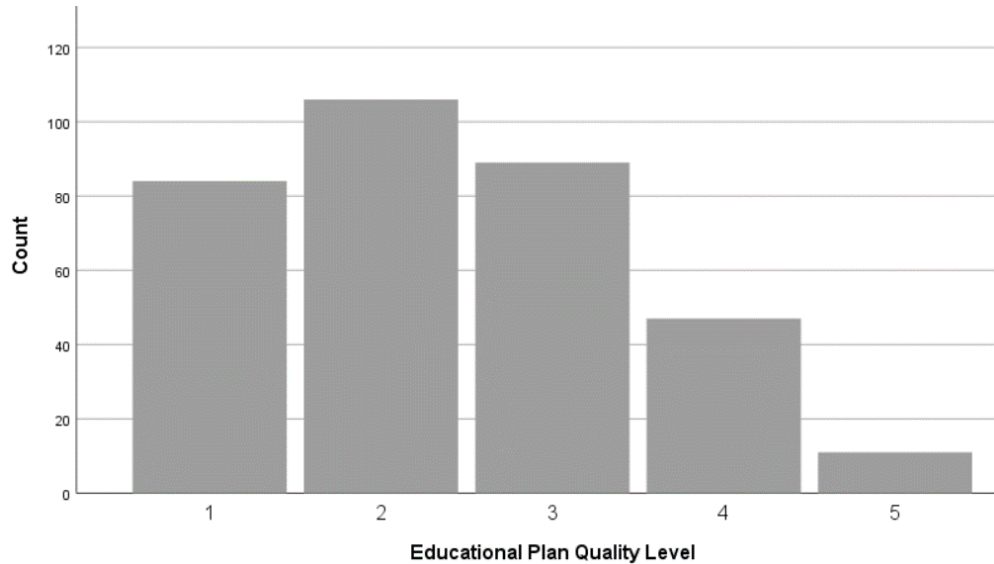
The quality of the educational plans assessed on the Educational Plan Quality Assessment did not follow a normal distribution, with a slight dip in the middle and a positive skew. Due to the nature of the Portal to Exceptional Educational Resources, which pulls in some basic student data during the creation of the plan and fills in some blanks with generic terminology, no plan scored below an 11 on the total score of all parts. The highest score was 58, which was six points away from the maximum score. A histogram of the distribution of all total scores can be seen in Figure 7.



*Figure 7.* Histogram of Total Scores on the Educational Plan Quality Assessment

The total scores, turned into EPQA levels with the a priori cut scores, can be seen in Figure 8, which highlights the positive skewness to the nature of the curve. The greatest quantity

of plans fell in the *two* range on the EPQA level ( $n = 106$ ), followed by the *three* range ( $n = 89$ ) and the *one* range ( $n = 84$ ). The *four* range ( $n = 47$ ) and the *five* range ( $n = 11$ ) had fewer plans scoring in the range, in alignment with the generally lower quality observed in plans throughout the district.



*Figure 8.* Histogram of the Distribution of EPQA Levels Based on Cut Scores

The histograms made apparent that a gap between the assessed values and normalcy existed. To this end, a Shapiro-Wilk test was conducted to determine the normality of the sample. The test returned a significant result of a lack of normality ( $p < .05$ ). Multiple steps were taken to determine if the results could still be utilized in a normal manner, including redistributing the EPQA level on a six-point scale (the EPQA6), and transforming both the EPQA Level and total score variables to weak, strong, and extreme levels. In all cases, normality was not achieved, as seen in Table 11. For each of the attempts at transforming the data, the Shapiro-Wilk test found significance at the  $p < .01$  level that normality did not exist within the sample. Exemplars for each level of quality of educational plan can be found in Appendix H.

Table 11

*Shapiro-Wilk Tests for Normality on EPQA Sample*

Assessed Tool	Statistic	<i>df</i>	Sig.
EPQA Total Score	.986	337	.003
EPQA Level	.917	337	.000
EPQA6 Adjusted Level	.923	337	.000
Transformed EPQA Level	.867	337	.000
Extreme Transformation of EPQA Level	.776	337	.000

Descriptive Analysis of EPQA Part A

Despite the non-normality of the total scores, each individual item on the EPQA presented the opportunity for an analysis of the quantitative trends and norms that occurred across the sample. To begin, the results from Part A of the EPQA are presented as assessed from the analysis of 337 educational plans that occurred for the central Florida school district. A summary of the examination is presented in Table 12.

Table 12

*EPQA Part A Item Scores by Total Percentage (n = 337)*

EPQA Item	Shortened Item Description	Score by Percent		
		0	1	2
Part A				
#A.1	Demographic info present	0.0%	100.0%	
#A.2	School on EP matches school of attendance	51.9%	48.1%	
#A.3	Parental concerns/desires for education detailed	28.2%	49.6%	23.3%
#A.4	Present Levels of Performance (PLP) defines student strengths	19%	49.9%	31.2%
#A.5	PLP defines student interests	76.6%	5.0%	18.4%
#A.6	PLP identifies areas of need beyond general curriculum	12.2%	66.8%	21.1%
#A.7	Area of need relates to student needs and interests	78.6%	0.0%	21.4%
#A.8	Strengths and interests are supported with numeric data	13.1%	48.1%	38.9%

The first item on the EPQA, which examined whether the demographic information of the student (i.e., their name and address) was included on the educational plan, was the only item



in which 100% of the educational plans were in alignment. On item #A.2, whether the school detailed on the EP matches the school of attendance, the results were relatively evenly split: 51.9% of plans listed the student as attending a different school than the one the student was currently attending. Slightly more than 70% of the educational plans presented some form of parental concern or desire for the education of the student on item #A.3, though only 23.3% of the plans thoroughly detailed the concerns of the parent rather than simply mentioning a vague concern. Figure 9 presents an example of the vagueness present in approximately 50% of the educational plans in the sample.

**II. Present Levels of Performance**

Special Considerations (e.g. limited English proficiency):

**There are no relevant factors.**

Concerns of the parent for enhancing the education of the student:

**Student 1679 will receive an enhanced curriculum.**

*Figure 9.* Example of Vague Statement of Parental Concern from EP 1679

For item #A.4, which assessed whether the EP indicated what the student's strengths were in the strengths and interests question on the Present Levels of Performance segment, 19% of plans were found to have no mention of student strengths, while 49.9% of plans had either a vague mention of a strength or simply had the data present to infer a student strength. Only 31.2% of plans had an explicit statement of the strengths of the student. Fewer plans still identified the interests of the student on the same question. A total of 78.6% of plans had no mention of student interests at all.

A majority of plans in the sample (87.8%), had a statement identifying an educational need of the student, though only 21.1% of plans had a statement that delineated a specific need of the student rather than provide a generalized statement. A plethora of the plans (66.8%) that were evaluated as having vague statements of need had claims similar to the one seen in Figure

10. When the statement of need was specific, it was always aligned to a student area of strength: all 71 of the plans that scored a “2” for having a specific need statement also scored a “2” for having the need aligned with a student strength or interest. Out of the 337 plans, 86.9% had some form of numerical data in their Present Levels of Performance data, though the numerical data did not always align with student strengths.

The student's giftedness results in the need for a special program and/or needs beyond the general curriculum in the following way:

**Student 1218 has shown the need for academic enrichment in the gifted program.**

*Figure 10.* Example of Vague Statement of Student Need from EP 1218

### Descriptive Analysis of EPQA Part B

Part B of the Educational Plan Quality Assessment was aligned to the Measurable Annual Goals segment of the educational plan and represented the bulk of points that an EP score could receive. A total of the percentages scored for each item related to plan goals assessed can be observed in Table 13. However, due to the fact that the EPQA is aligned to measure two goals on a single plan, the larger picture on the overall quality of goals cannot be seen in the table as the measures are reported on two separate items each. Additionally, the items on the second goal questions scored measurably lower due to the fact that 96 (28.5%) of the educational plans had only a single goal and therefore received scores of zero for the second goal items.

Table 13

*EPQA Part B Item Scores by Total Percentage (n = 337)*

EPQA Item	Shortened Item Description	Score by Percent		
		0	1	2
Part B				
#B.9	First goal is written clearly and specifically	24.6%	35.6%	39.8%
#B.10	First goal relates to the student strengths or interests	63.8%	21.1%	15.1%
#B.11	First goal can be realistically attained while still challenging student	31.5%	51.3%	17.2%
#B.12	First goal is measurable	39.5%	34.7%	25.8%
#B.13	First goal has a time-bound date for completion	57.9%		42.1%
#B.14	First goal identifies the method of goal assessment	22.6%	51.6%	25.8%
#B.15	First goal meets the needs established in PLP	72.4%	16.9%	10.7%
#B.16	First goal has two short-term objectives/benchmarks	14.8%	0.3%	85.5%
#B.17	First goal benchmarks are mastery-oriented	33.8%	51.9%	14.2%
#B.18	Second goal is written clearly and specifically	40.7%	29.1%	30.3%
#B.19	Second goal relates to the student strengths or interests	77.7%	12.8%	9.5%
#B.20	Second goal can be realistically attained while still challenging student	51.9%	38.3%	9.8%
#B.21	Second goal is measurable	53.7%	30.9%	15.4%
#B.22	Second goal has a time-bound date for completion	65.9%		34.1%
#B.23	Second goal identifies the method of goal assessment	42.1%	39.8%	18.1%
#B.24	Second goal meets the needs established in PLP	84.6%	10.4%	5.0%
#B.25	Second goal has two short-term objectives/benchmarks	36.8%	0.9%	62.3%
#B.26	Second goal benchmarks are mastery-oriented	55.2%	35.0%	9.8%
#B.27	Goal segment identifies how progress will be reported to parents of student	24.9%	2.1%	73.0%

To facilitate a more thorough and accurate analysis, the items are presented holistically in Table 14, with all goal items represented as single measures and the EPs that scored 0 across all items removed. Across all 337 educational plans, a total of 506 goals were written and consequently examined as a function of this study. When the scores for all items were added, the maximum score a goal could potentially receive was an 18. The highest score a goal in the sample received was a 17.

Table 14

*EPQA Part B Item Scores Measured Holistically (n = 506)*

Shortened Item Description	Score by Percent		
	0	1	2
Goal is written clearly and specifically	10.3%	43.1%	46.6%
Goal relates to the student strengths or interests	61.1%	22.5%	16.4%
Goal can be realistically attained while still challenging student	22.3%	59.7%	18.0%
Goal is measurable	28.9%	43.7%	27.5%
Goal has a time-bound date for completion	49.2%		50.8%
Goal identifies the method of goal assessment	9.9%	60.9%	29.2%
Goal meets the needs established in PLP	71.3%	18.2%	10.5%
Goal has two short-term objectives/benchmarks	0.8%	0.8%	98.4%
Goal benchmarks are mastery-oriented	26.1%	57.9%	16.0%

Generally, the goals on the educational plans in the sample did not have an issue with clearness, though they sometimes lacked specificity. Respectively, 10.3% of goals were identified as neither clear nor specific, 43.1% of goals were identified as clear though not specific, and 46.6% of plans were identified as both clear and specific. Far fewer goals were successful in regards to alignment with student strength, which was one of the de facto purposes for the educational plan goals. Almost two-thirds of goals, 61.1%, had no relationship with the declared strengths or interests of the student. Although it was not measured as a construct, a portion of the goals that scored a “0” on this item did so because the Present Levels of Performance segment of the plan did not delineate any student strengths or interests. Therefore, any goal written *could not be* aligned to any strengths. Only 16.4% of goals written were explicitly aligned with the strengths or interests of the student. A distribution of scores for each goal can be seen in Figure 11.

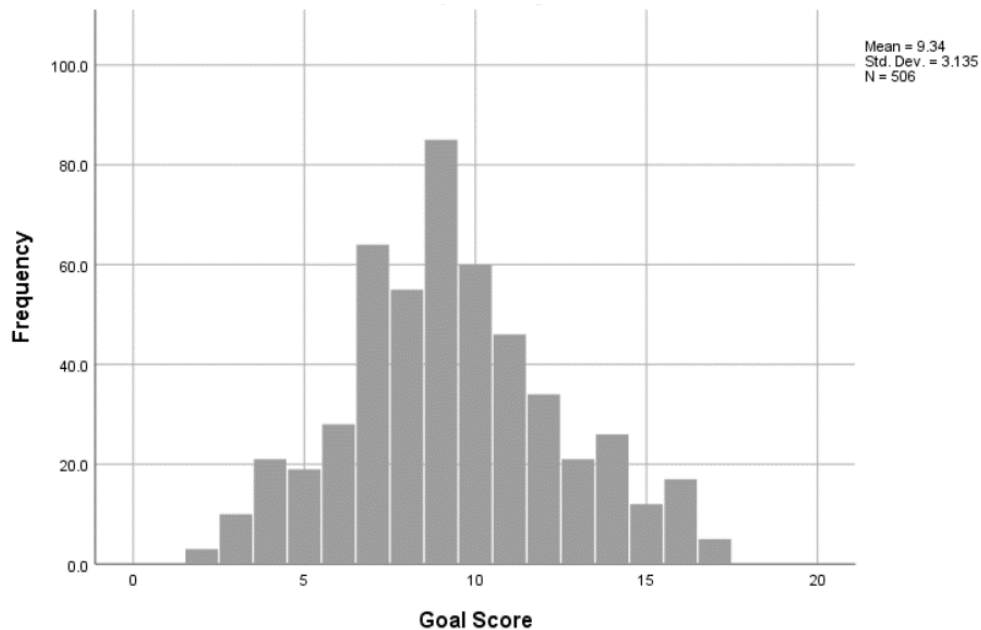


Figure 11. Distributions of Goals Scores on Part B of the EPQA (n = 506)

Exactly 18% of goals reviewed were identified as being both attainable and challenging for the student, while 59.7% of goals were viewed as attainable but not challenging, and 22.3% of goals were considered to be written as to be unobtainable. An example of an unobtainable goal can be seen in Figure 12.

**III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

Goal: **By May 17, 2019 Student 1562 will accept divergent views to positively effect change with 80% accuracy.**  
 Assessment Procedures: **Teacher Developed Checklist or Chart, Student Work Product**

Figure 12. Example of an Unobtainable Goal from EP 1562

In a similar vein, the measurability of the goals also varied widely. Out of the 506 goals reviewed, 28.9% were written without a mention of measurability, 43.7% were written in a way that included a measurable metric but associated the metric with an unmeasurable quantity (such as in Figure 12), and 27.5% of goals were written in ways that were clearly and logically measurable. A greater quantity of goals (90.1%) identified a method of assessment for the goal,

though this is unsurprising given that PEER features an area to check off which methods of assessment the goal will use. Still, 60.9% of goals were vague in their identification of assessment, usually having every possible method of assessment checked and providing no specificity as to how the method of assessment would be implemented in assessing the goal outcomes. Figure 13 presents an example of a goal that lacks specificity in assessment of the goal. In this example, the goal requires the student to conduct thoughtful research but denotes that appropriate assessments may be checklists, charts, tests, or work products. While these may be effective measures of assessment, they lack specificity.

**III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

Goal:	<b>By graduation, Student 951 will be able to conduct thoughtful research/ exploration in multiple fields.</b>
Assessment Procedures:	<b>Teacher Developed Checklist or Chart, Test(s): Teacher and/or Standardized, Student Work Product</b>

*Figure 13.* Example of Vague Assessment Procedures from EP 951

Approximately half of the goals (50.8%) were time-bound and featured statements such as “by graduation” or “by the end of this educational plan.” Figures 12 and 13 are both examples of such time-bound goals. Benchmarks were an area where the majority of goals were in alignment with expectations given that 98.4% of the goals featured two benchmarks. For the benchmarks, 16% were aligned with mastery-eliciting language, and 57.9% were more aligned with performance-based language. Many benchmarks featured qualifiers such as “on tests” or “on 4 out of 5 attempts” that could be interpreted as dissuading the student away from achieving mastery.

One final descriptive of note for Part B was need-alignment for the goals. Most of the goals (71.3%) were not at all aligned with the needs established in the Present Levels of

Performance. This will be discussed further in the qualitative analysis section of research question two.

### Descriptive Analysis of EPQA Part C

Part C of the Educational Plan Quality Assessment instrument aimed to examine the Exceptional Education Services segment of the educational plan. The purpose of this segment of the educational plan is to specifically delineate what services the gifted student will need in order to ensure that they can successfully meet their goals and thereby fulfill their strengths-related needs for their personal development. An overview of the scores in the segment can be observed in Table 15.

Table 15

*EPQA Part C Item Scores by Total Percentage (n = 337)*

EPQA Item	Shortened Item Description	Score by Percent		
		0	1	2
Part C				
#C.28	Frequency, location, and duration of gifted services identified	0.6%	0.0%	99.4%
#C.29	Provided services are appropriate for student grade level as established in state's Gifted Plan	8.9%		91.1%
#C.30	There is a specific statement of what the services are and how they will be provided to the student	4.2%	74.8%	21.1%

On item #C.28, a near totality of plans successfully identified the frequency, location, and duration of the services that were identified for the gifted student. Almost as many (91.1%) of the plans identified services that were appropriate for the student as determined by the Florida K-12 Gifted Plan, though 8.9% of plans had services that were either not appropriate for the age of the student (i.e. a first-grade student identified as receiving consultation on their affective needs) or were too vague to effectively determine what service the student would receive. An example of this vagueness can be seen in Figure 14.

#### **IV. Exceptional Education Services**

<b>Specially Designed Instruction</b>	<b>Initiation</b>	<b>Duration</b>	<b>Frequency</b>	<b>Location</b>
Gifted services	05/12/2016	05/11/2019	Daily	Regular Education Classrooms

*Figure 14.* Example of Vague Exceptional Education Services from EP 225

Finally, 21.1% of plans had a highly specific statement of what the services were and how they would be provided, while 74.8% of plans had a vague statement, and 4.2% of plans did not identify and services at all. An example of a strong statement of how exceptional education services are provided can be seen in Figure 15, which stated that a student would receive the services of *advanced academics* through working with a cohort of intellectual peers.

#### **IV. Exceptional Education Services**

<b>Specially Designed Instruction</b>	<b>Initiation</b>	<b>Duration</b>	<b>Frequency</b>	<b>Location</b>
Enhanced Curriculum	09/7/2017	05/24/2018	daily	reg ed classroom
Work with a cohort of intellectual peers (Advanced Academics)	09/7/2017	05/24/2018	daily	gifted classroom

*Figure 15.* Example of Specific Exceptional Education Services from EP 1963

#### **Descriptive Analysis of EPQA Part D**

The final part of the Educational Plan Quality Assessment instrument, Part D, was designed to examine some general features of the EP that were not scored in other segments. A summary of these scores can be seen in Table 16.



Table 16

*EPQA Part D Item Scores by Total Percentage (n = 337)*

EPQA Item	Shortened Item Description	Score by Percent		
		0	1	2
Part D				
#D.31	All parts of the EP are strengths-focused	32.6%	60.5%	6.8%
#D.32	The EP is active and has not expired	1.5%	98.5%	
#D.33	The EP is written to last three years (four for HS)	12.8%	87.2%	
#D.34	Thorough notes were taken during EP meeting	7.4%	63.2%	29.4%

Item #D.31 was designed to measure whether all parts of the EP were strengths-focused. On this item, a score of “0” was assigned if an actively negative comment (i.e., “student is a perfectionist”) was made, and a score of “2” was assigned when the plan highlighted students strengths in the PLP and aligned the goals to the strengths. Only 6.8% of the plans received the top score, with 32.6% of plans featuring negative comments.

Analysis of item #D.32 showed that 98.5% of the educational plans in the sample were active and had not expired and that 1.5% of plans were still marked as active despite the fact that their expiration date had passed. Analysis of item #D.33 shows that that 87.2% of plans were written to last the appropriate amount of time as regulated by 6A-6.030191 F.A.C., and that 12.8% of plans were written to last for less time (usually written to last only one year). Finally, 7.4% of EPs were found to have no notes at all, 63.2% of EPs were found to have general notes, and 29.4% of plans were found to have specific notes about the educational plan writing team meeting.

### Quantitative Analysis

A quantitative analysis was conducted with both relational and differential methodologies and designs in order to identify and examine trends that existed in the creation of the plans and the value that plans assessed as high-quality held. First, to examine trends that existed in the

creation of educational plans within the sample, a series of tests analyzing the differences between groups were conducted.

#### Differences Between School Levels

As discussed earlier in the chapter, the distributions of scores on the Educational Plan Quality Assessment were found to be significantly non-normal. The analysis of variance (ANOVA) assumes a normal distribution of the continuous variable in order to reliably measure the difference between groups. Applying an ANOVA when the assumption of normality is not satisfied may lead to erroneously rejecting a true null hypothesis or accepting a false null hypothesis (Lix et al., 1996). However, the ANOVA has been found by some researchers to be relatively robust to skewness in the sample, given that the groups are relatively large and of equivalent sizes (Maxwell & Delaney, 2004). For this reason, the decision was made to run both the parametric test, the ANOVA, and a non-parametric test, the Kruskal-Wallis test, for each of the variables examined with more than two groups. Descriptive statistics for the EPQA total scores distributed by grade level can be found in Table 17. The null hypothesis for this test was that there was no difference between the quality of educational plans created at different levels of schools.

Table 17

#### *Descriptive Statistics for EPQA Total Scores by School Level*

Group	<i>n</i>	<i>M</i>	<i>SD</i>	Minimum	Maximum	Mean Rank
Elementary	79	33.99	9.870	13	58	198.59
Middle	112	31.01	10.556	12	58	166.75
High	146	29.47	8.732	11	51	154.71
Total	337	31.04	9.766	11	58	

A one-way ANOVA was conducted to determine if the quality of the educational plans produced were different for the grade level of the school where the plan was produced. Plans were classified into three groups, elementary ( $n = 79$ ), middle school ( $n = 112$ ), and high school ( $n = 146$ ). There were no outliers within the groups, but the data were not distributed normally for one of the three groups as assessed by a Shapiro-Wilk test (middle school,  $p = .037$ ). There was homogeneity of variances, as assessed by Levene's test of homogeneity of variances ( $p = .122$ ). As shown in the ANOVA results in Table 18, the differences between the school levels were statistically significantly different,  $F(2, 334) = 5.647, p = .004$ . Total score on the EPQA decreased from elementary ( $M = 33.99, SD = 9.870$ ) to middle school ( $M = 31.01, SD = 10.556$ ) and high school ( $M = 29.47, SD = 8.732$ ), in that order. A Tukey post-hoc analysis revealed that the mean decrease from elementary to high school (4.522, 95% CI [1.35, 7.69]) was statistically significant ( $p = .002$ ), but the differences between elementary and middle school (2.978, 95% CI [-.35, 6.31],  $p = .091$ ) and middle school and high school (1.543, 95% CI [-1.31, 4.39],  $p = .410$ ) were not statistically significant.

Table 18

*One-Way ANOVA for EPQA Total Score by School Level Groups*

	Sum of Squares	<i>df</i>	Mean Square	F	Sig.
Between Groups	1048.191	2	524.096	5.647	.004**
Within Groups	31000.307	334	92.815		
Total	32048.499	336			

\* $p < .05$ , \*\* $p < .01$

Since the assumption of normality was not met with the sample, a non-parametric test was also run before the determination to reject the null hypothesis was made. A Kruskal-Wallis H test was run to determine if there were differences in the three school-level groups (elementary, middle school, and high school). An inspection of a visual boxplot revealed that the

distributions of the total scores for each school level were not similar and that the shape of the boxes, particularly for middle school, differed. Similar to the ANOVA, the distributions for school level were statistically significantly different between the groups,  $\chi^2(2) = 10.503, p = .005$ . Based on this test, the null hypothesis was rejected, and it was determined that a trend existed in which the educational plans are of higher quality at the elementary level than at the high school level.

#### Differences Between the Quantity of Gifted Endorsed Teachers

In the state of Florida, educational plans are required to have a teacher with an understanding of gifted education as part of the team in order to function as the interpreter of instructional implications of gifted services for the team. The primary expectation for this requirement is that teachers complete a 300-hour gifted endorsement course in gifted education, though the endorsement is not explicitly required on Rule 6A-6.030191 F.A.C. Educational plans in the sample ranged from having zero gifted endorsed teachers on the EP writing team to two gifted endorsed teachers. An analysis of variance was conducted to determine if there was a difference in the quality of the educational plans when grouped by the number of gifted endorsed teachers on the writing team. The null hypothesis was that there would be no difference between the plans when grouped by the number of gifted endorsed teachers. Descriptive statistics for the groups of endorsed teachers are shown in Table 19.

Table 19

*Descriptive Statistics for EPQA Total Scores by Number of Endorsed Teachers*

Group	<i>n</i>	<i>M</i>	<i>SD</i>	Minimum	Maximum	Mean Rank
Zero Endorsed Teachers	77	28.23	9.087	12	44	145.11
One Endorsed Teacher	193	31.51	9.871	11	58	171.73
Two Endorsed Teachers	67	32.90	9.681	12	56	188.58
Total	337	31.04	9.766	11	58	

A one-way ANOVA was conducted to determine if the quality of the educational plans produced differed between plans written with teams that had zero gifted endorsed teachers ( $n = 77$ ), one gifted endorsed teacher ( $n = 193$ ), and two gifted endorsed teachers ( $n = 67$ ). There was a single outlier within the groups, but the decision was made to proceed past the outlier without alteration to the data. The data were not distributed normally for two of the three groups as assessed by a Shapiro-Wilk test (zero endorsed teachers,  $p = .002$ ; one gifted endorsed teacher,  $p = .040$ ). There was homogeneity of variances, as assessed by Levene's test of homogeneity of variances ( $p = .338$ ). As shown in the ANOVA results in Table 20, the differences between the number of endorsed teachers on the EP team were statistically significantly different,  $F(2, 334) = 4.716, p = .010$ . Total score on the EPQA increased from zero endorsed teachers ( $M = 28.23, SD = 9.087$ ) to one endorsed teacher ( $M = 31.51, SD = 9.871$ ) to two endorsed teachers ( $M = 32.90, SD = 9.681$ ), in that order. Tukey post hoc analysis revealed that the mean difference between zero endorsed teachers to one endorsed teacher (3.279, 95% CI [.21, 6.34]) was statistically significant ( $p = .033$ ), as was the difference between zero endorsed teachers and two endorsed teachers participating on an EP team (4.662, 95% CI [.86, 8.46],  $p = .011$ ). However, the difference between one endorsed teacher and two endorsed teachers working on a plan was not significant (1.383, 95% CI [-1.84, 4.61],  $p = .571$ ).

Table 20

*One-Way ANOVA for EPQA Total Score by Number of Gifted Endorsed Teachers*

	Sum of Squares	<i>df</i>	Mean Square	F	Sig.
Between Groups	880.220	2	440.110	4.716	.010**
Within Groups	31168.278	334	93.313		
Total	32048.499	336			

\* $p < .05$ , \*\* $p < .01$

As with the test for the difference between school level, normality of the sample was not found on a Shapiro-Wilk test. As a function of this, the Kruskal-Wallis H test was again implemented to determine if there were differences in the three groups of quantities of endorsed teachers on an EP writing team (zero, one, and two). An inspection of a visual boxplot revealed that the distributions of the total scores for each number of endorsed teachers on the writing team were not similar, and that the shape of the boxes differed. The box for zero endorsed teachers was much larger with smaller whiskers than the more compressed box for one endorsed teacher. The distributions for number of endorsed teachers on the writing were statistically significantly different between the groups,  $\chi^2(2) = 7.497, p = .024$ . As a result, the null hypothesis was rejected. It was determined that there was a difference in the quality of EPs when gifted endorsed teachers are present during the writing process as compared to when they are absent.

#### Non-significant Examinations of Difference

Multiple independent samples *t*-tests for equality of means were run and found to be insignificant. The *t*-test for differences between the quality of educational plans at charter schools and non-charter schools showed no significant difference in the quality of the plans ( $t(335) = -0.204, p = .839$ ), as did the test for the difference in plans written for male and females ( $t(335) = -1.462, p = .145$ ). Another non-significant examination revolved around the quality of IEPs for gifted students versus EPs. When students had a second exceptionality in addition to

their giftedness (twice-exceptional learners), they received an IEP in lieu of an EP. By assessing only the aspects of the IEP that were related to giftedness with the EPQA, an EPQA total score and quality level could be determined. The quality of these IEPs was not statistically significantly different from the quality of the regular educational plans ( $t(335) = -1.356$ ,  $p = .176$ ). There was also no significant difference between educational plans for students who receive free or reduced lunch and students who do not qualify ( $t(335) = -0.153$ ,  $p = .880$ ). The results of these non-significant t-tests can be seen in Table 21.

Table 21

*Non-significant Results for t-Tests on EPQA Total Score Groupings*

Test	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	Mean Difference	Sig.
Gender				335	-1.462	4.716	.145
Male	175	30.29	9.972				
Female	162	31.85	9.504				
EP at Charter School				335	-0.204	-0.347	.839
Yes	37	30.73	10.314				
No	300	31.08	9.714				
IEP				335	-1.356	-3.387	.176
Yes	16	27.81	8.86				
No	321	31.20	9.794				
Free/Reduced Lunch Status				335	-0.152	-0.176	.880
Yes	124	30.93	10.904				
No	213	31.10	9.065				

\* $p < .05$ , \*\* $p < .01$

Further examinations in the differences in quality of educational plans were run examining the differences for student groups based on race and ethnicity. The plan quality for students identified as ethnically Hispanic was found to have no significant difference from plans written for non-Hispanic students ( $t(335) = -0.551$ ,  $p = .582$ ). No significant differences could be found between any form of student groups by race, be it American Indian or Alaskan Native

( $t(335) = -0.651, p = .516$ ), Asian ( $t(335) = 0.653, p = .514$ ), Black or African American ( $t(335) = -1.124, p = .262$ ), or White ( $t(335) = -0.113, p = .910$ ). All t-tests were run by whether the student was identified as part of a particular race population. One student identified as a Pacific Islander, but a t-test was not run due to the limited group size. The results of all non-significant t-tests related to student race and ethnicity can be seen in Table 22.

Table 22

*Non-significant Results for t-Tests on EPQA Scores Related to Race and Ethnicity*

Test	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	Mean Difference	Sig.
Ethnicity: Hispanic				335	-0.551	-0.587	.224
Yes	167	30.74	9.202				
No	170	31.33	10.310				
Race: American Indian or Alaskan Native				335	-0.651	-1.403	.516
Yes	22	29.73	9.765				
No	315	31.13	9.775				
Race: Asian				335	0.653	1.241	.514
Yes	29	32.17	12.077				
No	308	30.93	9.537				
Race: Black or African America				335	-1.124	-1.726	.262
Yes	47	29.55	9.690				
No	290	31.28	9.774				
Race: White				335	-0.113	-0.141	.910
Yes	256	31.00	9.450				
No	80	31.14	10.830				

\* $p < .05$ , \*\* $p < .01$

Correlations Between the EPQA and Student Variables

After the analyses of differences in EPQA scores by variables were completed, an analysis of relationships between the EPQA total scores and student variables was conducted. A series of simple Pearson *r* correlations between the EPQA total scores and different student variables were conducted to examine if a relationship existed between the quality of the



education and achievement measures of the student. A perfect correlation is +1 or -1. Zero to .4 represents a weak correlation, .5 to .7 a moderate correlation, and  $> .7$  is considered to be a strong correlation (Moore, Notz, & Flinger, 2013).

No moderate or strong correlations between the quality of educational plans and student achievement variables were found, though a statistically significant, weak correlation was found between GPA and EP quality score ( $r = .165, p = .045$ ). This relationship was slightly stronger when considering weighted GPAs ( $r = .168, p = .033$ ). Given the non-normality of the distribution of total scores, a Kendall's tau-b test was also implemented to determine if non-parametric significance was also achieved. The correlation between EP quality and weighted GPA, while slightly weaker, was still statistically significant ( $\tau_b = .112, p = .039$ ). This indicated that there is some interaction effect between the quality of the educational plan and student achievement, but it may be of little practical significance. A summary of all achievement measures that were correlated parametrically and non-parametrically against the EP quality score can be seen in Table 23, regardless of whether the test was found to be significant. It is important to note that the variance in number of students included for the correlational analysis is due to certain students in certain grades not yet having completed a grade level that provides GPAs or not yet having a score for a grade-bound examination, such as the 3rd grade reading assessment.

Table 23

*Correlations Between the EPQA and Student Variables*

Measure	<i>n</i>	<i>M</i>	<i>SD</i>	SS	<i>r</i>	Sig.	$\tau_b$	Sig.
GPA	148	3.29	0.620	131.91	.165*	.045	.110	.055
Weighted GPA	162	3.72	0.677	159.591	.168*	.033	.112*	.039
FSA Reading Scale Score	311	357.44	21.751	-3057.646	-.047	.413	-.025	.521
FSA Math Scale Score	269	350.28	18.683	-1860.654	-.038	.534	-.006	.887
EOC Algebra 1 Scale Score	152	529.32	17.935	3165.750	.132	.104	.093	.096
EOC Geometry Scale Score	117	528.97	19.070	1488.256	.077	.407	.087	.147

\**p* < .05, \*\**p* < .01

## Research Question Two

Research question two was posited as: *what results emerge from qualitative analysis of educational plans and can trends in the development of gifted educational plans be identified?* To answer this question, a constant-comparative methodology was implemented in which temporary constructs were identified and refined into second-order constructs, which were then clustered into common themes for qualitative analysis. The common themes were each analyzed independently and are presented separately. The themes identified were (1) providing reading and math goals for every student, (2) a lack of parental concerns, (3) plans lacking individuality, (4) teachers providing more work, not different work, (5) a focus on measurability, (6) use of the Florida gifted frameworks. Figures provided are not meant to be comprehensive, but rather illustrative of the themes and issues present in the plans.

Reading and Math Goals for Every Student

One of the most common themes observed was EPs wherein students had exactly one math goal and one reading goal. Ninety educational plans (27%) were found to have a goal in both areas. This was despite the students' identified strengths. For example, multiple EPs had statements of strength identifying the student as having very high ability in mathematics while

providing no evidence of ability in ELA at all, yet featured both a reading goal and a math goal for the student. An example of one such educational plan with both goals can be seen in Figure 16. Here, the student is scoring above average, but not exceptionally, in the area of English language arts, and is performing exceptionally in mathematics. Yet, the plan is written with a goal in both subject areas without detailing the need for differentiation in the area of ELA.

**II. Present Levels of Performance**

Special Considerations (e.g. limited English proficiency):

**Nothing reported**

Concerns of the parent for enhancing the education of the student:

**No parent concerns.**

Based on the strengths and interests of the student and the results of recent evaluations, including class work and state or district assessments, the student is able to:

**2016 FSA: Math-4, ELA-5  
iReady: Math SS 512, Reading SS 642**

The student's giftedness results in the need for a special program and/or needs beyond the general curriculum in the following way:

**An differentiated curriculum is required to enable Student 793 to reach his full academic potential.**

---

**III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

Goal: **By June 2020, Student 793 will successfully demonstrate effective reading strategies across all disciplines on a yearly basis as determined by a score of 80% or higher, 8 out of 10 times.**

Assessment Procedures: **Student Work Product, Graded Work Sample**

How Progress Reported: **A copy of the progress report will be given with the report card every nine weeks.**

Short-term Objectives or Benchmarks:

**Student 793 will use a systematic approach for locating and using information from a variety of reference materials.**

**Student 793 will locate, evaluate, and sort data using media and advanced technology to present and discuss findings.**

Goal: **By June 2020, Student 793 will successfully demonstrate the ability to use numerical procedures, concepts, and information on a yearly basis as demonstrated by a score of 80% or higher, 8 out of 10 times.**

Assessment Procedures: **Student Work Product, Graded Work Sample**

How Progress Reported: **A copy of the progress report will be given with the report card every nine weeks.**

Short-term Objectives or Benchmarks:

**Student 793 will demonstrate proficiency and be able to apply advanced numeric procedures to draw logical conclusions and give multiple solutions to real life problems.**

**Student 793 will use calculating tools and computers for analyzing, communicating, and synthesizing information.**

*Figure 16.* Example of an EP with a Read and Math Goal from EP 793

### A Lack of Parental Concern

A common theme of the educational plans examined was to specifically write that “no parental concerns” were presented during the meeting. This phrase appeared on 95 educational plans in the sample (28%). Even when the parental concerns were described they were often distinctly negative. Given that 6A-6.030191 F.A.C. defines the parents as critical for providing input about their student’s strengths and how to help develop the strengths, only two observed plans had specific parental statements about their students’ areas of ability.

The use of the words “parental concerns” in depicting the need for parental input may contribute to the phenomenon. Perhaps phrasing such as “parents views of student’s strengths and interests” would be more likely to elicit useful feedback for the educational plan.

Conversely, this may also be a function of the high Hispanic population in the sample; half (50%) of the plans in the sample belonged to students whose families identified as Hispanic, a majority of whom came from households where Spanish was the predominant language. A language barrier existing between the EP writing team and the parents may also account for some of the plans in which parental concerns were not described. An example of a strong set of parental concerns, which was found to be thematically uncommon throughout the entirety of the sample, can be seen in Figure 17.

Concerns of the parent for enhancing the education of the student:

**Mother's main focus is to make sure that he is challenge but to be aware of any struggles he shows. She wants to make sure that we are keeping an eye on his math so that he is not struggling in certain Math skills. She would like his goals to be set based on his current diagnostic assessment.**

*Figure 17.* Example of a Strong Parental Concerns Statement from EP 215

### Non-individualized Plans

A less common, but still prevalent, theme was that goals on educational plans, particularly ones written by the same author, were effectively identical to goals on a different educational plan. A total of 31 plans were coded as having goals that were exactly identical to other educational plans, though this may not be representative of the larger issue given the random nature of the sample. One writer of educational plans had three separate EPs appear in the random sample, all of which had exactly identical wording and measures. Upon further examination of plans outside of the sample, a plethora of plans written by the same teacher contained the goal portrayed in Figure 18, save for the student name (which here was changed in Figure 18 for the sake of student anonymity).

Goal:	<b>By the end of 12th grade, Student 189 will assume leadership roles in both gifted and heterogeneous learning groups with a 90% effectiveness score on 3 of 4 activities.</b>
Assessment Procedures:	<b>Other</b>
Other (if applicable):	<b>Observation and grades</b>
How Progress Reported:	<b>Quarterly with report cards</b>

*Figure 18.* Example of a Strong Parental Concerns Statement from EP 189

This issue seemed to be representative of a larger thematic issue: that many of the plans were not individualized to the student for which they were being written. The previous theme examined, low parental concerns, found that nearly one-third of plans in the sample featured the statement “no parental concerns.” For a theme to be that emergent within a random sample of documents, it can likely be said that the lack of individuality among those statements is a pervasive issue. Beyond the issue of exact matching between plans, there were also phrases (such as “on 4 out of 5 assessments”) that appeared on a preponderance of plans. While it is understandable for some similarity to exist between these documents given that there are

expectations for what comprises a quality educational plan, it is a noted theme that there exists a lack of individuality between plans written by some individuals.

### More, Not Different

The discontinue metric, applying a score of “0” to all parts of a goal score on the EPQA when a goal is found to require a student to only complete a grade-level standard, was applied a total of 44 (13%) times. This theme emerged from observing EP goals that were designed in such a way as to provide no additional services to the student, but rather to simply grade the assignments they were already completing. These unchallenging goals were common, especially in elementary schools, and often were aligned to ask the student to complete more work than other classmates, or to score higher on similar tasks in the curriculum, without reducing some aspect of the curriculum in order to provide the student the opportunity to do different work. As Susan Baum phrased it, “teachers still think gifted is more and not different” (S. M. Baum, personal communication, May 19, 2019, para. 102).

Two examples of these unchallenging goals can be observed in Figure 19. These goals were written to seemingly provide no additional support or challenge for the student and operate as a measure of compliance in the completion of a document. The phrase that asks that gifted students succeed on “grade-appropriate math problems” appeared on more than one educational plan, seemingly in defiance of the meaning of giftedness and the developmental model of talent. One reason to explain this might be to perhaps ease the burden that could be imposed upon the teacher by the educational plan goals. By having a goal that is aligned to exactly what is being taught in the classroom, no additional work needs to be completed to successfully meet the educational plan for the student. Unfortunately, this line of thinking has the byproduct of

producing a plan that ultimately provides nothing for the student beyond the general curriculum, which has already proven to not be suitable by the present levels of performance of the student.

### **III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

**Goal:** Student 293 will use a variety of strategies to solve grade appropriate math problems correctly in 4 out of 5 attempts.

**Assessment Procedures:** Test(s): Teacher and/or Standardized, Graded Work Sample, Curriculum Based Assessments

**How Progress Reported:** Quarterly, every nine weeks with the report card.

#### **Short-term Objectives or Benchmarks:**

**She will use problem solving skills and strategies to correctly solve problems in 4 out of 5 attempts.**

**She will correctly apply real life situations and use models to correctly solve problems in 4 out of 5 attempts.**

**Goal:** Student 293 will use a variety of skills to solve grade appropriate reading questions correctly in 4 out of 5 attempts.

**Assessment Procedures:** Test(s): Teacher and/or Standardized, Graded Work Sample, Curriculum Based Assessments

**How Progress Reported:** Quarterly, with the report card every 9 weeks.

#### **Short-term Objectives or Benchmarks:**

**She will answer comprehension questions using text evidence correctly in 4 of 5 attempts.**

**She will use context clues to find word meanings in the text correctly in 4 out of 5 attempts**

*Figure 19.* Example of Unchallenging Goals from EP 293

The unchallenging goals also extended into the benchmarks for the goals, which were equally unchallenging on the plans that received discontinues, wherein a plan received a score of “0” for all measures related to goals due to its inappropriateness. For example, the goal in the below figure asks that a student communicate with large and small groups to convey information and ideas “with 90% accuracy.” Aside from being unmeasurable in the classroom, this goal was also not aligned with an identified student strength or need and likely did not provide challenge in the classroom to help the student develop their talents. The benchmarks are not aligned with the stated goal of increasing communication ability and are not designed to help the students master their goals and develop their gifts into talents.

### III. Measurable Annual Goals and Short-Term Objectives or Benchmarks

Goal:	<b>Student 568 will select and apply a variety of personal and technical communication forms in small or large group discussions to convey information, positions and ideas with 90% accuracy through evaluation procedures.</b>
Assessment Procedures:	<b>Student Work Product, Curriculum Based Assessments, Documented Observation</b>
How Progress Reported:	<b>Progress report given to the student every nine weeks.</b>

#### Short-term Objectives or Benchmarks:

- will plan long term projects using a planner**
- will use lists to minimize time gathering materials**
- will identify resources to help with difficult assignments**
- will develop and maintain a system to organize work and tasks**

*Figure 20.* Example of Unchallenging Benchmarks from EP 568

#### A Focus on Measurability

Out of the 337 plans in the sample, 204 of the plans (61%) had some metric for quantifying and method for measuring the goals. A plethora of the educational plans utilized measurable metrics such as “student will score 80% on 4 of 5 tasks.” Of the 133 plans that were scored as a “0” on items #B.11 and #B.20, which indicates that the goal could not be measured, many of the goals still had a measurable metric only the metric was applied to something the researcher determined to be an unmeasurable quality. This was due to the fact that the goal was written in such a way that, despite having a metric for measurement, the target construct was unmeasurable. For example, asking students to “communicate effectively in real-world interactions 4 out of 5 times” not only seems unmeasurable, but the measurement of the goal would apply an undue burden to the teacher.

Still, a concern for the presence of measurable goals in the educational plans was a dominant theme that was apparent in a majority of the sample. This concern for measuring the outcomes of the student even spread into the short-term objectives and benchmarks, where some goals were observed to have an array of measures across multiple benchmarks. At times, these



measures were so established that they may have functioned better as separate goals than as benchmarks. An example of this phenomenon can be seen in Figure 21, where the student was given two goals that read “reading goal” and “mathematics goal” with no further detail, yet had fully developed measurable benchmarks that could have served as an individual goal themselves.

### **III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

**Goal:** **READING GOAL**  
**Assessment Procedures:** **Test(s): Teacher and/or Standardized, Curriculum Based Assessments**  
**How Progress Reported:** **Student 393's progress toward her goal will be documented at least once a Quarter on her EP Progress Report. This document will be sent home with each Report Card.**

**Short-term Objectives or Benchmarks:**

- Student 393 will further develop and practice her Creative Thinking Skills in Reading with at least 80% accuracy.**
- Student 393 will assess and generate questions related to her reading with at least 80% accuracy.**
- Student 393 will create products that demonstrate an understanding of above grade level text with at least 80% accuracy.**

**Goal:** **Mathematics Goal**  
**Assessment Procedures:** **Test(s): Teacher and/or Standardized, Curriculum Based Assessments**  
**How Progress Reported:** **Student 393's progress toward her goal will be reported to her parent at least once a Quarter on her EP Progress Report. This document will be sent home with each Report Card.**

**Short-term Objectives or Benchmarks:**

- Student 393 will develop and practice problem solving skills in Mathematics with at least 80% accuracy.**
- Student 393 will be able to think creatively and critically to solve Real World Problems with at least 80% accuracy.**
- Student 393 will also be able to deliver products that demonstrate an understanding of Mathematical concepts with at least 80% accuracy.**

*Figure 21.* Example of Measurable Benchmarks from EP 393

Perhaps this is a function of a lack of understanding of the EP development system, the Portal to Exceptional Education Resources, or perhaps it was a matter of oversight. A measurement metric applied to an unmeasurable construct appears in Figure 22.

Goal:	<b>Student will improve participation in class settings by making appropriate and relevant comments 4 out of 5 times when discussion is appropriate.</b>
Assessment Procedures:	<b>Teacher Developed Checklist or Chart, Interview With</b>
Interviewer: (if applicable):	<b>Gifted Counselor; Regular Teacher</b>
How Progress Reported:	<b>every 9 weeks with report card</b>
<u>Short-term Objectives or Benchmarks:</u>	
	<b>Student will participate by making appropriate and relevant comments in 4 out of 5 group work situations.</b>
	<b>Student will participate by making appropriate and relevant comments in 4 out of 5 whole class discussion situations.</b>

Figure 22. Example of Measurement of Unmeasurable Construct from EP 1251

### The Florida Gifted Frameworks

A preponderance of the short-term objectives or benchmarks (175 of the 337 plans in the sample) to help students meet their EP goals utilized language directly from Florida's Frameworks for K-12 Gifted Learners (Weber et al., 2013). More often than not, however, the more simple objectives from the *Know* and *Understand* parallels of the frameworks were selected for establishing benchmarks instead of language from the *Perform* and *Accomplish* parallels. Students were much more likely to be asked to "identify" or "use" knowledge than they were asked to utilize cognitive structures such as "create," "develop," or "evaluate," all of which are included in objectives throughout the frameworks and are critical for helping gifted students develop their talents. Examples of the language from the frameworks being utilized to construct a goal can be observed in Figure 23, where multiple phases were directly copied from the frameworks to establish the short-term objectives and benchmarks that the student should use to reach their goal. While the usage of the frameworks in developing the plans is to be lauded, the lack of individualization of the goals seems to impede the successful construction of the goal within the plan.

### **III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

**Goal:** By graduation, Student 684 will be able to think creatively and critically to identify and solve real-world problems with 90% accuracy.

**Assessment Procedures:** Test(s): Teacher and/or Standardized, Student Work Product

**How Progress Reported:** Quarterly progress report

#### **Short-term Objectives or Benchmarks:**

**Student 684 will demonstrate the ability to identify and investigate a problem and generate supportive arguments from multiple perspectives of a complex issue.**

**Student 684 will analyze the relevance, reliability, and usefulness of data to draw conclusions and forecast effective solutions.**

**Student 684 will use and evaluate various problem-solving methods to determine effectiveness in solving real-world problems.**

**Goal:** By the end of his senior year, Student 684 will be able to conduct thoughtful research/exploration in multiple fields with 90% accuracy.

**Assessment Procedures:** Test(s): Teacher and/or Standardized, Student Work Product

**How Progress Reported:** Quarterly progress report

#### **Short-term Objectives or Benchmarks:**

**Student 684 will demonstrate the ability to assemble ideas, objects, and/or events from a variety of sources (primary and secondary) to conduct research in a field of study.**

**Student 684 will analyze and synthesize information and concepts contained in multiple sources and communicates results in a unique way, i.e., designing a better model or creating a simulation.**

*Figure 23.* Example of Frameworks Statements in Goals from EP 684

#### Summary of the First Phase

The first phase of the study focused on using a qualitative instrument to codify the researcher's observations and quantify the output for utilization in a mixed-methods analysis. The purpose of this was to ensure that, while a quantitative metric was produced that could be measured against the quantitative data from the second phase, thematic analysis could be presented to detail perceived themes common between educational plans. The themes identified provided a useful body of knowledge for inference and transferability of understanding during the discussion of the findings between quality and teacher opinions towards the education of gifted students (Creswell & Clark, 2011).

## Second Phase: Opinions about the Gifted and their Education

The second phase of the study sought to analyze the attitudes and opinions that teachers held towards gifted students and their education. A total of 284 participants were identified in the purposive sample based on their participation as a writer on a gifted education plan for a student identified in the first phase random sample. All participants were contacted to complete the *Opinions about the Gifted and their Education* (Gagné & Nadeau, 1991; McCoach & Siegle, 2007) opinionnaire in order to develop an understanding of teacher attitudes towards gifted education within the examined district.

### Descriptive Analysis

The *Opinions about the Gifted and their Education* opinionnaire was sent out to 284 teachers who had composed the 337 examined educational plans. Sixty-two teachers were immediately removed from the OGE sample due to a mortality threat of teachers leaving the school district and having no current contact details. This left a total of 222 teachers to be contacted for the survey. A total of 50 teachers responded to the opinionnaire, a 22.5% response rate. In table 9, a depiction of the teacher characteristics of gender, school level, and other demographic information can be observed. Based on a g-power analysis, this response  $n$  is large enough to allow the examination of large effects (Appendix I).

The *Opinions about the Gifted and their Education* instrument was designed to provide four subscale scores in the areas of elitism, support, acceleration, and gifted self-perceptions. McCoach and Siegle (2007) utilized the subscores to run comparisons between grouping variables, but for this examination, the scores were also summed to provide an overall opinion towards gifted education. The means and standard deviations for both the current study and the original study can be seen in Table 24. A score of 4.0 was considered to be a neutral opinion.

Table 24

*Means and Standard Deviations for the OGE Subscales (n =50)*

Subscale	Current Study		McCoach & Siegle (2007)		<i>MD</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Elitism (reverse scored)	6.556	0.095	3.38	1.21	3.18
Support	5.490	0.149	5.45	0.98	0.04
Acceleration (reverse scored)	4.260	0.148	4.46	0.96	0.20
Gifted self-perceptions	4.480	0.221	4.12	1.60	0.36
Total Opinion Score	5.260	0.078			

Three of the four subscores found means similar to the original study (support,  $MD = 0.04$ ; acceleration,  $MD = 0.20$ ; gifted self-perceptions,  $MD = 0.36$ ). The score for elitism, however, was very different from the McCoach and Siegle (2007) study, with a mean difference of 3.18. Teachers in the current study were much more likely to disagree that services for gifted students were elitist than teachers surveyed in the original study. Perhaps this is a function of bias that exists in the sample given that a majority of teachers surveyed had completed 300 hours of professional learning about giftedness. It may also have a relationship with the progress in gifted studies that have occurred in the twelve years since the original study.

An additional mean, derived from the total score across all items, was also calculated to develop a single variable that could be measured against the quality of the educational plans. A distribution of the total mean scores for the responses, which represents the opinion towards gifted education that the respondents hold, can be seen in Figure 24. This sample was found to have homogeneity of variance and to approximate a normal distribution ( $p > .05$ ). The overall mean for the sample ( $M = 5.260$ ) showed a slight positive sentiment toward gifted education (a mean of four represented an overall neutral sentiment).

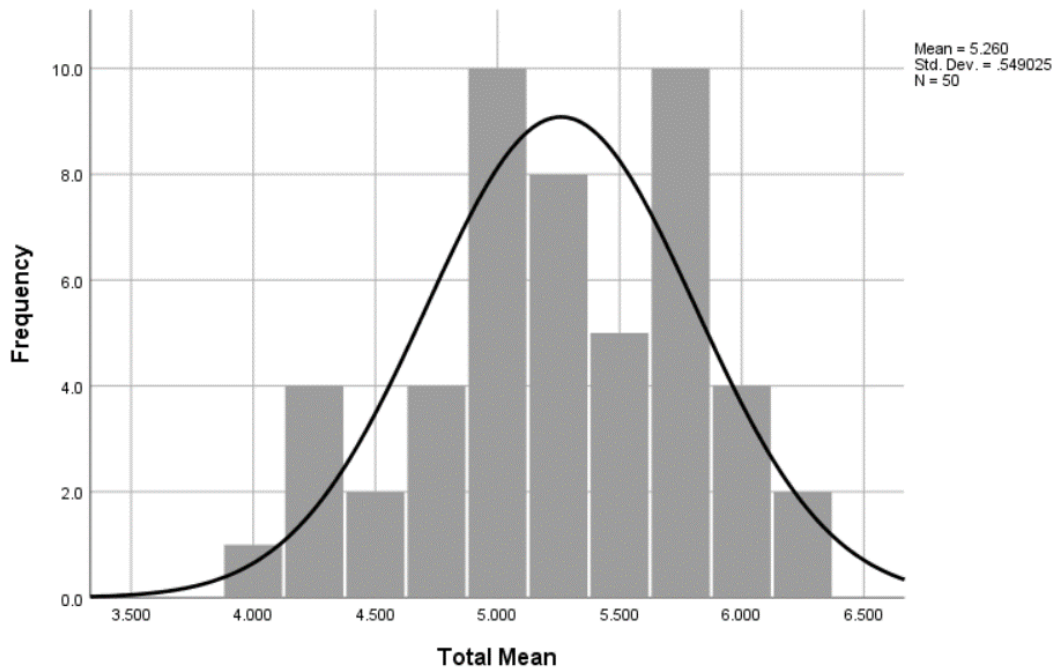


Figure 24. Histogram of the Distribution of Opinion Scores on the OGE Instrument

### Ancillary Findings

While the research questions around the use of the *Opinions about the Gifted and their Education* were not designed to examine the nature of the teacher sample, an exploratory analysis into the results did yield ancillary findings that were useful for understanding the results. Multiple independent *t*-tests were run to see if any differences between groups existed in the respondents to the opinionnaire, including whether the respondent had completed a 300-hour gifted endorsement training program, whether they worked at a public or charter school, and whether they were male or female. Across the groupings, results were found to have homogeneity of variance and approximated normal distributions. While two grouping variables for the *t*-tests found significant results, the lower mean opinion towards gifted education for male respondents ( $M = 4.663$ ,  $SD = 0.605$ ) than for female respondents ( $M = 5.312$ ,  $SD = 0.519$ ) in

responses based on gender ( $t(48) = -2.474, p = .022$ ), have limited generalizability due to the small sample of male respondents ( $n = 4$ ).

The difference in opinions towards giftedness for teachers who completed the 300-hour gifted endorsement training, however, had both sufficient sample size (endorsed,  $n = 36$ ; not endorsed,  $n = 14$ ), and statistically significant findings ( $t(48) = -2.742, p = .009$ ). The mean opinion towards gifted score for respondents who completed the endorsement ( $M = 5.385, SD = 0.572$ ) was higher than the mean for those who had not ( $M = 4.939, SD = 0.493$ ). Given that the mean was reported on a scale of one to seven points, a mean difference of a half-point holds practical significance in addition to statistical significance. The results from these  $t$ -tests can be seen in Table 25.

Table 25

*Results for t-Tests on OGE Total Score Groupings*

Test	<i>n</i>	Mean	<i>SD</i>	<i>df</i>	<i>t</i>	Mean Difference	Sig.
Holds Endorsement				48	-2.742	-0.446	.009**
Yes	36	5.385	0.572				
No	14	4.939	0.493				
Works at Charter School				48	-1.942	-0.489	.058
Yes	5	4.820	0.481				
No	45	5.308	0.539				
Gender				48	-2.474	-0.649	.022*
Male	4	4.663	0.605				
Female	46	5.312	0.519				

\* $p < .05$ , \*\* $p < .01$

Upon further examination into the results, it was also found that holding a gifted endorsement had an effect size of  $d = .601$  on teacher opinion towards giftedness, shown in table 26.

Table 26

*Effect Size for the Impact of Obtaining an Endorsement on Opinions Towards Giftedness*

Test	<i>n</i>	Mean	<i>SD</i>	<i>S</i> <sub>Pooled</sub>	<i>MD</i>	<i>d</i>
Holds Endorsement				0.742	-0.446	0.601
Yes	36	5.385	0.572			
No	14	4.939	0.493			

While more than one analysis of variance was conducted, none of the differences in opinion score between grouping variables were found to be significant. In an analysis of the differences in opinion by what level of degree the teacher had obtained (Bachelor's degree,  $n = 19$ ; Master's degree,  $n = 24$ ; or Specialist/Doctorate,  $n = 7$ ), no statistically significant variance between the means was found,  $F(2, 47) = 0.702, p = .501$ . This same could be said for analyses between the levels of school that the respondent worked at when grouped by elementary ( $n = 19$ ) versus middle ( $n = 17$ ) and high school ( $n = 14$ ),  $F(2, 47) = 0.672, p = .515$ , the amount of years they had been in education when grouped into sets of 0 to 10 years ( $n = 10$ ) versus 11 to 19 ( $n = 26$ ) and 20 or more years ( $n = 14$ ),  $F(2, 47) = 0.205, p = .815$ , and the amount of years spent in gifted education when grouped into 0 to 5 years ( $n = 20$ ), 6 to 10 years ( $n = 23$ ), and more than 10 years ( $n = 7$ ),  $F(2, 47) = 2.216, p = .120$ . In all of the analyses, homogeneity of variance was found as assessed by Levene's test and the distribution was normal as assessed by multiple Shapiro-Wilk tests ( $p > .05$ ), so non-parametric tests were not utilized in the analysis of the data from the teacher sample. A summary of the non-significant analyses of variance that were run between the teacher opinions towards gifted education and the characteristics of the teachers themselves can be seen in Table 27.



Table 27

*One-Way ANOVAs for Opinion Score by Teacher Characteristics*

	SS	df	Mean Square	F	Sig.
ANOVA Total	14.770	49			
Level of Degree (B, M, S/D)					
Between Groups	0.428	2	0.214	0.702	.501
Within Groups	14.342	47	0.305		
Level of School (Elem, Mid, High)					
Between Groups	0.411	2	0.206	0.673	.515
Within Groups	14.359	47	0.306		
Number of years teaching					
Between Groups	.158	2	0.079	0.254	.777
Within Groups	14.612	47	0.311		
Number of years teaching gifted					
Between Groups	1.273	2	0.637	2.216	.120
Within Groups	13.347	37	0.287		

\*p < .05, \*\*p < .01

In addition to the analysis of differences, correlations were run to further analyze the data. A moderate correlation ( $r = .361$ ) was found to be statistically significant ( $p = .01$ ) between the amount of years spent teaching gifted students and the opinion that teachers held towards the education of students who are gifted, indicating that spending time in the classroom with gifted students has a positive effect on the teacher's opinion of gifted education. This is further supported by the effect size of the impact,  $d = 0.499$ . This relationship is portrayed in the following table, Table 28.

Table 28

*Correlations and Effect Size Between the Teacher Opinions and Years Teaching Gifted (n = 50)*

Measure	M	SD	SS	r	Sig.	MD	S <sub>Pooled</sub>	d
Years Teaching Gifted	6.92	4.668	45.390	.361**	.010	1.660	3.324	0.499
Mean Opinion Score	5.260	0.549	14.770					

\*p < .05, \*\*p < .01

Other examined relationships were less impactful and insignificant. The correlation between years spent teaching any type of student and opinion towards gifted education ( $r = .049$ ,  $p = .737$ ), highest level of degree earned and opinion ( $r = .074$ ,  $p = .610$ ), age of the teacher and opinion ( $r = .109$ ,  $p = .451$ ), and school-level taught ( $r = .137$ ,  $p = .343$ ), were all found to have non-significant results with little practical significance. One other correlation was found to be significant, the relationship between gender and teacher opinion, when assessed with a point-biserial correlation. The mean score for male respondents ( $M = 4.663$ ) was lower than the mean for female respondents ( $M = 5.311$ ), and the relationship between gender and opinion was found to have moderate strength ( $r_{PB} = .324$ ) that was statistically significant ( $p = .022$ ). However, this should not be considered representative of the larger population given that there were only four male respondents in the sample.

### Research Question Three

Research question three was posited as: *in what ways and to what extent are attitudes and opinions about the nature and education of students who are gifted associated with the quality of an educational plan?* To answer this question, a correlative study between the opinions teachers held towards gifted education and the quality of the plans that they wrote was undertaken. Each teacher was assigned a mean quality score drawn from the sum total score of all the plans that they wrote in the sample. For example, one of the teachers who responded to the survey had been on the EP writing team for 15 of the EPs in the sample. The mean quality score was derived from all EPs the teacher had contributed to and matched pairwise to her opinion score. Descriptive statistics for all paired teacher opinion scores and their mean EP total scores and mean quality levels can be found in Appendix J. A scatter plot distribution of the matched scores can be seen in Figure 25.

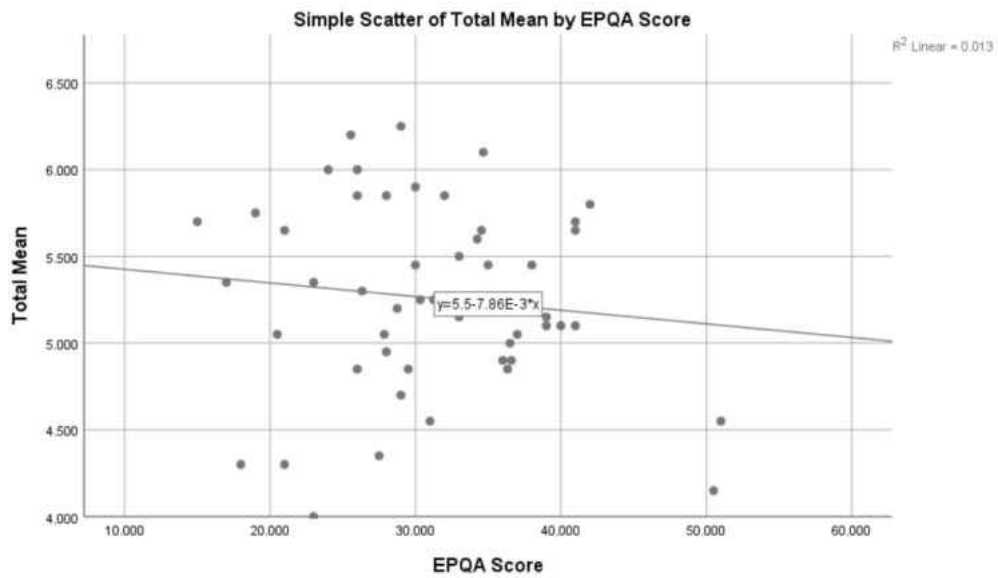


Figure 25. Scatter Distribution of Opinion Means Matched with EPQA Scores

Correlational examinations between the teacher opinion scores and the quality of the educational plans that they produced showed a weak, negative relationship that was not statistically significant ( $r = -.114, p = .430$ ). The EPQA quality score was also not significantly correlated with any of the subscale components of the *Opinions about the Gifted and their Education* opinionnaire, which can be seen in Table 29.

Table 29

*Correlations Between the EPQA and the OGE Components*

Measure	<i>M</i>	<i>SD</i>	SS	<i>r</i>	Sig.	$\tau_b$	Sig.
Elitism (reverse scored)	6.556	0.674	37.174	.141	.328	.030	.775
Support	5.490	1.053	1.440	.004	.981	.060	.551
Acceleration (reverse scored)	4.260	1.050	-49.462	-.121	.404	-.060	.555
Gifted self-perceptions	4.488	1.561	-97.110	-.159	.269	-.107	.283
Total Opinion Score	5.260	0.549	-24.444	-.114	.430	-.055	.580

\* $p < .05$ , \*\* $p < .01$

Differential analysis also yielded no significant conclusions. A one-way analysis of variance between the means of the opinion scores towards gifted education the teachers received from the OGE and the quality level (one to five) of the educational plans that they produced was completed,  $F(3, 44) = 0.908, p = .445$ . After an analysis of box plots, two outliers had to be removed. Each of the clusters of scores was found to be normal on a Shapiro-Wilk test ( $p > .05$ ). The means of opinion scores for teachers who produced educational plans that fell in the *one* range ( $n = 9, M = 5.050$ ) was lower than teachers in the *two* ( $n = 22, M = 5.378$ ) and *three* range ( $n = 11, M = 5.286$ ). The teachers who created educational plans that fell in the *four* range ( $n = 6, M = 5.400$ ) had the highest mean score. The difference between the means was not found to be statistically significant. Thus, the null hypothesis that no difference existed between teachers' opinions towards gifted education and the quality of the educational plans they produced was retained. A summary of this analysis can be seen in Table 30.

Table 30

*One-Way ANOVA for Opinion Mean Score and EPQA Quality Level*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.756	3	0.252	0.908	.445
Within Groups	12.209	44	0.277		
Total	12.965	47			

\* $p < .05$ , \*\* $p < .01$

#### Research Question Four

Research question four was posited as: *in what ways, if any, is the relationship between the EP quality score and teacher attitudes and opinions moderated by the student and teacher characteristics?* To answer this question, an array of statistical analyses were utilized to observe the association from different angles.

The first method of analysis completed utilized multivariate analyses of variance, MANOVAs, in order to understand if the relationship between both the opinion score and the EPQA quality score (utilized together as the dependent variable) was being moderated by any of the teacher or student characteristics. The first multivariate analysis compared whether the teacher held a gifted endorsement to both the mean opinion score the teacher held towards gifted education and the quality of the educational plans they were producing.

A Shapiro-Wilk test found that within this analysis, the univariate distribution of results was not non-normal ( $p > .05$ ), and that there was univariate homogeneity of variance for both dependent variables as assessed by a Levene test. An assessment of box-plots revealed that there were two significant, univariate outliers within the sample. Given that the two outliers were both genuinely unusual values (see case #39 and #49 in Appendix J) where two high-quality educational plans were matched with two teachers with lower opinions scores on the OGE, the decision was made to complete an analysis that included the unusual values. Therefore, the MANOVA was completed both with the univariate outliers included and with the univariate outliers excluded to ensure that the results were not materially affected. Conversely, no multivariate outliers were found in the data, as assessed by none of the variables exceeding the critical Mahalanobis distance ( $p > .001$ ). The largest Mahalanobis distance in the sample was 9.037, lower than the critical value for two dependent variables, 13.82. There was no multicollinearity between the dependent variables, as shown in Table 29. There was also a linear relationship between EPQA quality scores and OGE opinion scores when split by endorsed versus not endorsed teachers on the EP writing team, as assessed by the scatterplots shown in Figure 26. The sample had homogeneity of variance-covariance matrices, as assessed by Box's M test of equality of covariance matrices ( $p = .069$ ).

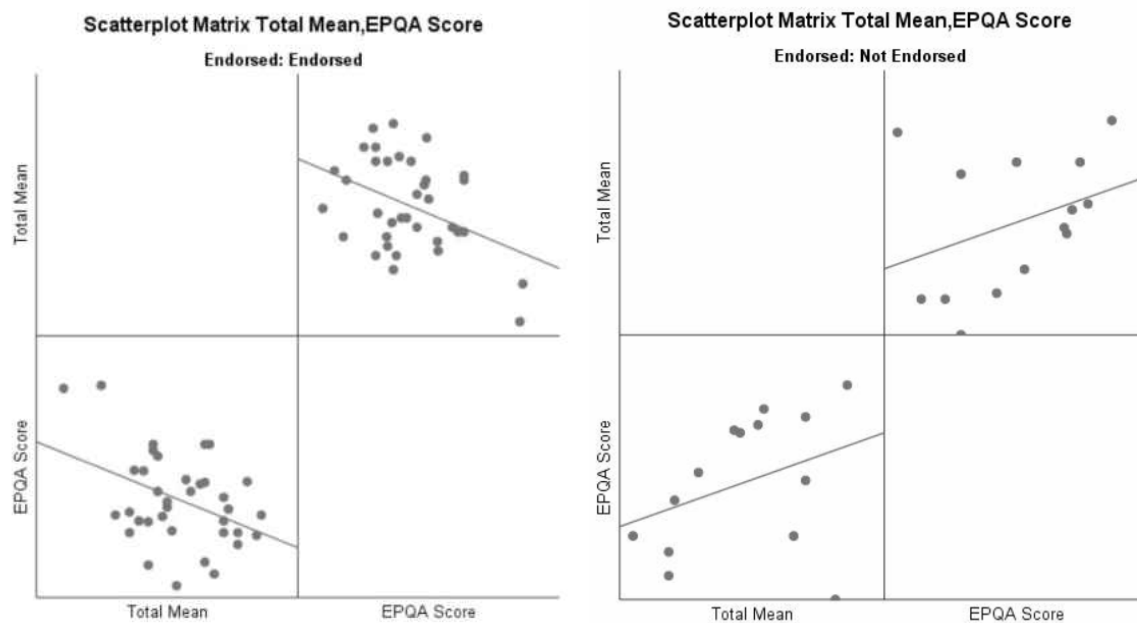


Figure 26. Linearity Analysis of EPQA Quality Scores and OGE Opinion Scores by Endorsement Status

Teachers who held their endorsement had higher mean EPQA quality scores ( $n = 36, M = 31.56, SD = 7.76$ ) and higher opinions towards gifted education ( $M = 5.385, SD = 0.493$ ), while teachers who had not completed the 300-hour endorsement program produced lower quality EPs with higher variance ( $n = 14, M = 29.77, SD = 8.63$ ) and held lower opinions towards gifted education ( $M = 4.939, SD = .572$ ). The differences between endorsement status on the combined dependent variables was statistically significant,  $F(2, 47) = 4.354, p = .018$ ; Wilks'  $\Lambda = .844$ ; partial  $\eta^2 = .156$ . Follow-up univariate ANOVAs found that endorsement status was statistically significantly different between the two groups in relation to teacher opinion of gifted education ( $F(1, 48) = 7.518, p = .009$ ; partial  $\eta^2 = .135$ ). However, there was no statistically significant difference between the endorsement status groups in relation to the quality of the plan the teachers produced, even when considering the Bonferroni correction for multiple comparisons

( $F(1, 48) = 0.501, p = .482$ ; partial  $\eta^2 = .010$ ). After removing the univariate outliers, the strength of the difference between the dependent variables decreased slightly, but the significance increased,  $F(2, 45) = 5.491, p = .007$ ; Wilks'  $\Lambda = .804$ ; partial  $\eta^2 = .196$ . A visual representation of the differences (with outliers removed) can be seen in Figure 27, which shows the relatively steady mean opinions towards gifted education resulting in varying levels of quality for educational plans among teachers with endorsements compared the rising quality in educational plans in relation to mean opinions about gifted education for teachers who do not hold gifted endorsements.

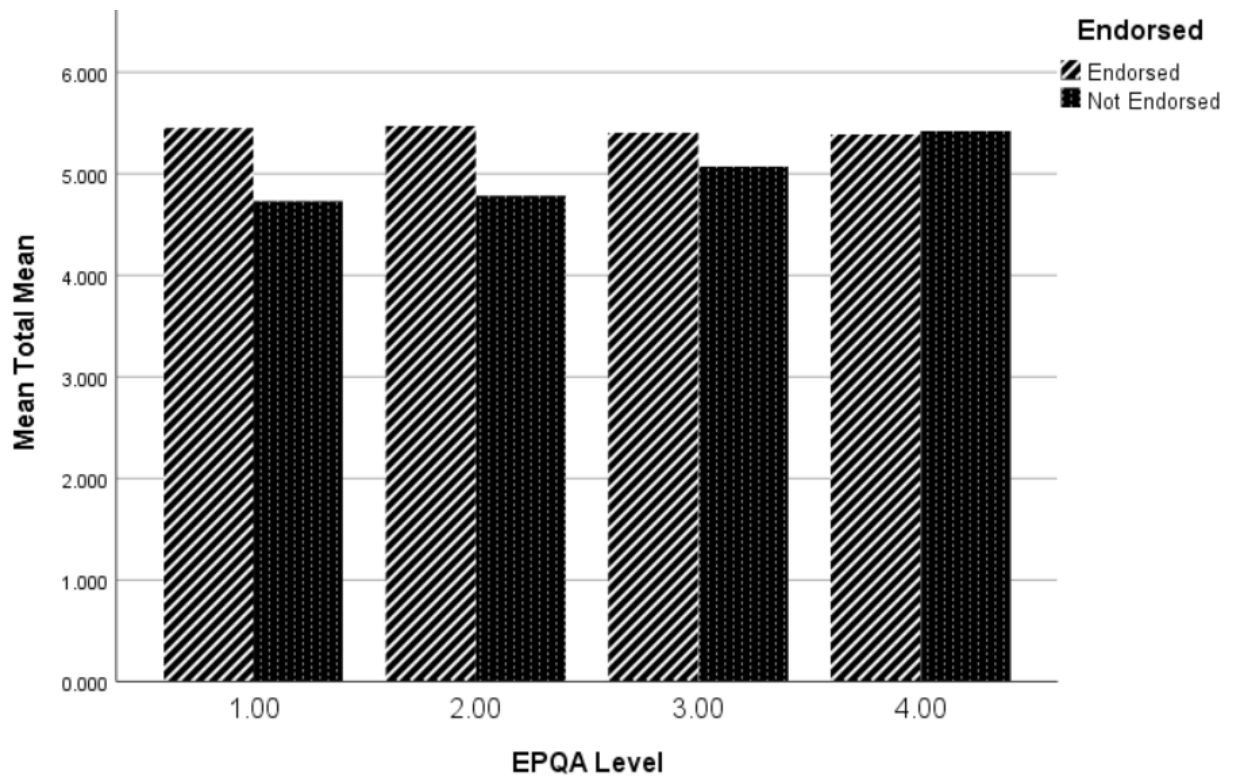


Figure 27. Differences Between Endorsed and Unendorsed Teachers on Quality of EPs and Opinions Towards Gifted Education

A multivariate analysis of the moderating effect of the number of years spent teaching gifted students on the dependent variables was conducted next. A Shapiro-Wilk test showed that the univariate distribution of all results was normal ( $p > .05$ ) and a Levene test found that there was univariate homogeneity of variance for both dependent variables. An assessment of box-plots revealed that there were no significant univariate outliers within the sample. The two dependent variables had already been found to have no multicollinearity and no multivariate outliers on a prior analysis. A linear relationship existed between EPQA quality scores and OGE opinion scores when split by the numbers of years spent teaching gifted students, as assessed by the scatterplots shown in Figure 28. The sample had homogeneity of variance-covariance matrices, as assessed by Box's M test of equality of covariance matrices ( $p = .027$ ).

Teachers who had been teaching gifted students for one to five years had lower mean EPQA quality scores ( $n = 20, M = 29.60, SD = 8.05$ ) than teachers who had taught for six to nine years ( $n = 19, M = 30.62, SD = 6.49$ ) or teachers who had taught ten or more years ( $n = 11, M = 34.47, SD = 9.72$ ). However, an unusual phenomenon occurred in teacher opinion score when moderating for years spent teaching gifted students: the mean for teachers who taught gifted for six to nine years ( $M = 5.55, SD = .466$ ) was higher than the mean for teachers who taught gifted students for 10 or more years ( $M = 5.07, SD = .457$ ) or five or fewer years ( $M = 5.09, SD = .573$ ), although more variance existed in the opinions of newer teachers than more experienced ones. The differences in years spent teaching gifted students on the combined dependent variables was statistically significant,  $F(4, 92) = 2.985, p = .023$ ; Wilks'  $\Lambda = .783$ ; partial  $\eta^2 = .115$ . Follow-up univariate ANOVAs showed that endorsement status was statistically significantly different between the two groups for the opinions that teachers held towards gifted education ( $F(2, 47) = 4.864, p = .012$ ; partial  $\eta^2 = .171$ ) but that there was no statistically significant difference



between the groups in relation to the quality of the plan the teachers produced ( $F(2, 47) = 1.400$ ,  $p = .257$ ; partial  $\eta^2 = .171$ ).

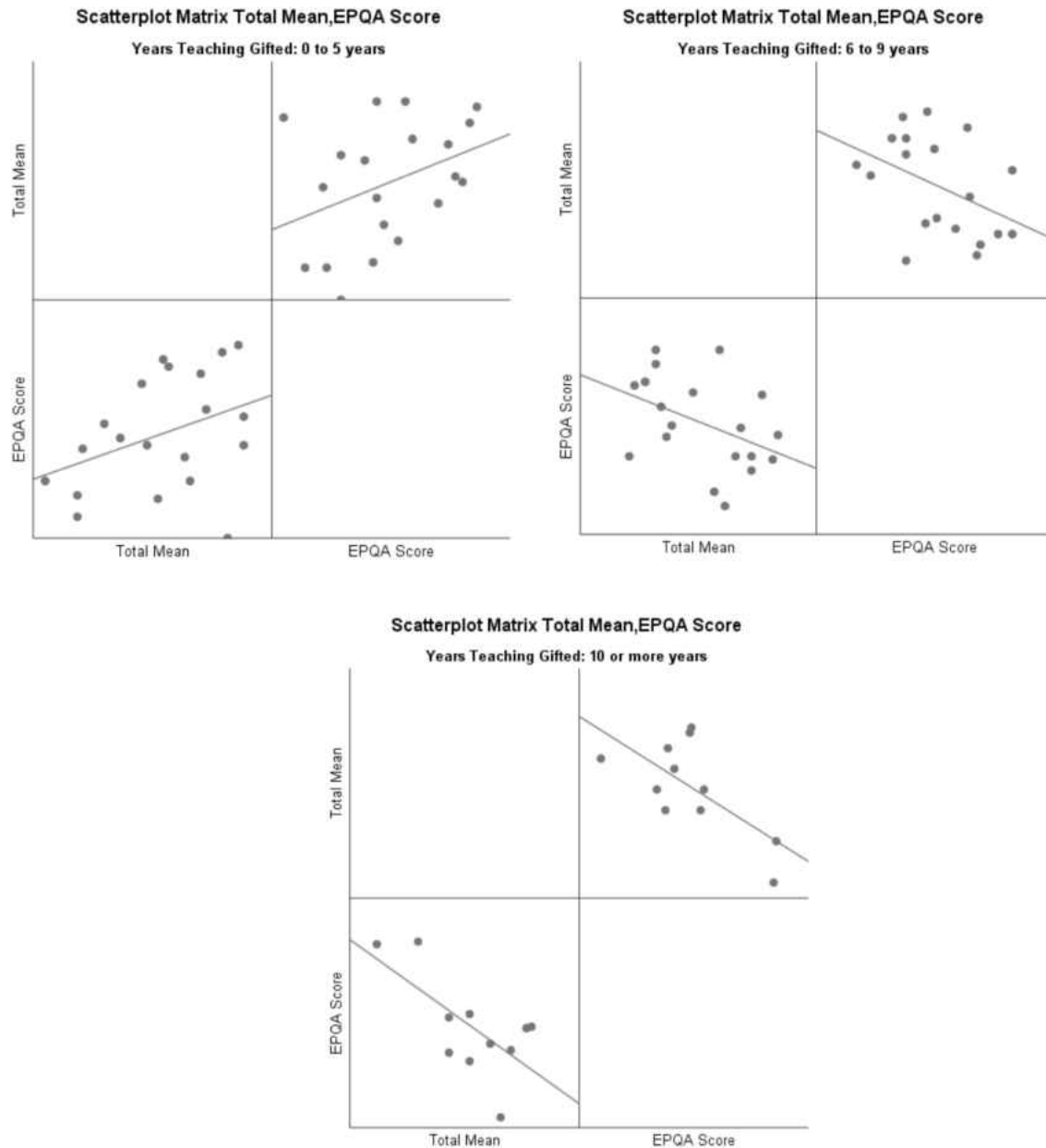


Figure 28. Linearity Analysis of EPQA Quality Scores and OGE Opinion Scores by Years Teaching Gifted

A MANOVA conducted with gender as the moderating variable, which passed all assumption tests for the MANOVA and had no significant outliers, was found to have linearity. Male teachers in the grouping produced lower quality EPs ( $n = 4$ ,  $M = 27.18$ ,  $SD = 9.01$ ) and had lower opinions towards gifted education ( $M = 4.663$ ,  $SD = 0.605$ ) than female teachers ( $n = 46$ ; EPQA,  $M = 31.40$ ,  $SD = 7.89$ ; OGE,  $M = 5.312$ ,  $SD = 0.519$ ). The analysis found that the difference between genders on both their opinions and the quality of plans they produced had a significant moderating effect,  $F(2, 47) = 3.780$ ,  $p = .030$ ; Wilks'  $\Lambda = .861$ ; partial  $\eta^2 = .139$ . However, the implications of these results are limited due to the small size of the male representation within the sample.

Two other MANOVAs were fully implemented to further examine the moderating effect of differing variables on the relationship between the quality of educational plans and the opinions the teacher holds towards gifted education. Both of the tests, one an examination of the impact of the level of degree that the teacher holds ( $F(4, 92) = 1.038$ ,  $p = .392$ ; Wilks'  $\Lambda = .916$ ; partial  $\eta^2 = .043$ .), the other an analysis of the number of years teaching ( $F(4, 92) = 0.376$ ,  $p = .825$ ; Wilks'  $\Lambda = .968$ ; partial  $\eta^2 = .016$ .), were found to meet all assumptions of the MANOVA, and both found no significant results. The results of all multivariate analyses of variance conducted between the quality of the EPs produced and the opinions towards gifted education of the teachers can be found in Table 31. It is worth noting that multivariate analyses of variance between the dependent variables in the *student characteristics* (rather than the teacher characteristics) could not be conducted as the analysis utilized mean quality scores of the plans a teacher produced and there was no reliable way to take a mean of nominal variables, such as student gender or race, in a way that would allow for a valid analysis.

Table 31

*Results for MANOVAs on EPQA Quality Score and OGE Opinion Score by Moderators*

Independent Variable	df	df error	F	Λ	Partial η <sup>2</sup>	Sig.	Means	
							EPQA	OGE
Level of Degree	4	92	1.038	.916	.043	.392		
Bachelor's							33.37	5.150
Master's							30.22	5.304
Specialist/Doctorate							27.65	5.407
Has Gifted Endorsement	2	47	4.354	.844	.156	.018*		
Endorsed							31.56	5.385
Not Endorsed							29.77	4.939
Gender	2	47	3.780	.861	.139	.030*		
Male							27.18	4.663
Female							31.40	5.312
Number of Years Teaching	4	92	0.376	.968	.016	.825		
0 to 10 years							28.79	5.280
11 to 19 years							31.91	5.210
20 or more years							31.09	5.340
Years Teaching Gifted	4	92	2.985	.783	.115	.023*		
0 to 5 years							29.60	5.09
6 to 9 years							30.62	5.55
10 or more years							34.47	5.07

\*p < .05, \*\*p < .01

#### Question Four, Part A

Research question four, part a was posited as: *how do moderator variables such as student grade level, school level (elementary, middle, high), school type (charter or non-charter), gender, ELL status, test scores, student ethnicity, socio-economic status, number of endorsed teachers, and number of educational plan writers affect the education plan quality score?* While many aspects of the measure of differences between the moderator variables and the EPQA scores were already answered in research question one, an attempt was made to determine if there was any predictive model that could be created to explain the moderating effect of the different variables. Unfortunately, in a multiple regression analysis, no linear

relationship existed between the dependent variable and the independent variables collectively, which violated the assumption of linearity in the relationship. Therefore, no linear regression analysis could be completed successfully. Figure 29 shows the lack of linear relationship ( $r^2 = 0.013$ ) between the variables.

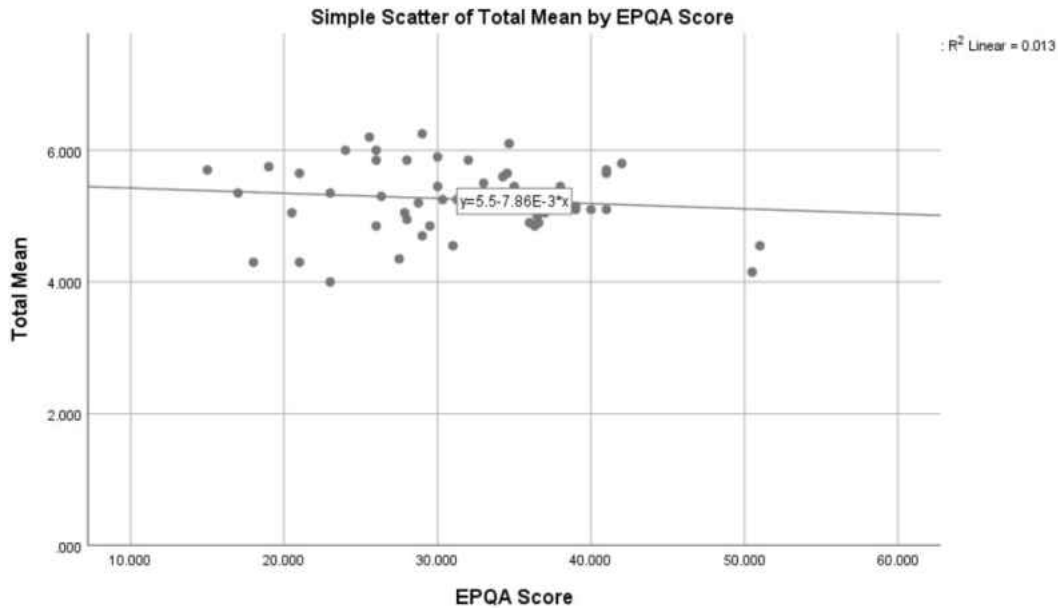


Figure 29. Scatterplot of the Relationship Between OGE Mean Scores and EPQA Scores

#### Summary of Second Phase

The second phase of the study sought to understand the opinions that teachers who wrote educational plans in the examined county held toward gifted education and whether their opinions had an association with the quality of the educational plans that the teachers wrote. Descriptive analyses of the teacher sample ( $n = 50$ ) from the *Opinions about the Gifted and their Education* opinionnaire were provided and the responses were analyzed using *t*-tests and analyses of variance. The results were correlated to the total quality scores from the Educational Plan Quality Assessment and the relationship was examined utilizing multivariate analyses of variance to determine what teacher characteristics had moderating effects on the relationship. A

multiple regression was attempted, but failed due to a lack of linearity between the dependent and independent variables collectively.

### Summary

Chapter four presented the results of data collected from two instruments, the Educational Plan Quality Assessment and the *Opinions about the Gifted and their Education* opinionnaire, from a sample of 337 student documents and 50 teachers, which were analyzed individually and comparatively for both differences and associations utilizing *t*-tests, ANOVAs, correlations, point-biserial correlations, MANOVAs, and a multiple regression. The results from both analyses were measured against each other to determine the impact that teacher opinion had of the quality of educational plans. Statistical analyses, significant findings, and common themes in the educational plans were presented for the results of the EPQA analysis as well as the OGE analysis.

Results from the first phase revealed that an abnormal distribution of quality existed within the sample of educational plans that skewed positively. Elementary schools produced higher quality educational plans ( $p = .004$ ) and plan quality increased in association with the number of gifted endorsed teachers working on the plan ( $p = .01$ ). Qualitative themes that emerged among the educational plans included (1) providing reading and math goals for every student, (2) a lack of parental concerns, (3) plans lacking individuality, (4) teachers providing more work, not different work, (5) a focus on measurability, (6) use of the Florida gifted frameworks.

Results from the second phase found that teacher opinions about gifted education were measurably higher if the teacher had completed 300-hours of professional learning in a gifted endorsement program ( $p = .009$ ) and if they were female ( $p = .022$ ). Years spent teaching gifted

students was significantly correlated with opinion towards gifted education ( $r = .361, p = .01$ ). There was a weak, negative, non-significant correlation between the quality of the plan and the teachers' opinion towards gifted education. However, when both scores were considered together, the relationship was strongly moderated by whether the teacher had completed a gifted endorsement ( $p = .018$ ), their gender ( $p = .030$ ), and the number of years they spent teaching gifted students ( $p = .023$ ).

A summary of the results from the EPQA and OGE analysis will be discussed in Chapter Five. Conclusions, implications for practice, and policy, and recommendations for future research were presented.

## CHAPTER FIVE: SUMMARY, DISCUSSION, AND CONCLUSIONS

### Introduction

In the preceding chapter, the data collected were presented and analyzed, with the findings reported. Chapter Five consists of five sections. First, (1) a summary of the study, including the problem statement and methodology are present, followed by (2) a discussion of the findings of the study. Then, (3) implications for practice, research, and policy are explained. Conclusions are drawn from the findings and (4) recommendations for future research are presented. The purpose of the former sections is to provide a brief overview of the entire study. The latter sections exist to expand upon the concepts that were presented earlier in the study in an effort to add to the literature an understanding of the quality of educational plans and their relation to the opinions teachers hold towards the education of students who are gifted, as well as provide suggestions for where future research can focus to expand the understanding of how quality educational plans are developed. Finally, (5) a synthesizing statement is offered in an effort to cover the expanse of the study and draw conclusions from what has been attempted in this research.

### Summary of the Study

This was a mixed-method study that examined the relationship between the quality of educational plans for students who are gifted and the opinions towards giftedness of the teachers who wrote the plans. The study consisted of two phases that utilized two separate instruments, the *Educational Plan Quality Assessment* and the *Opinions about the Gifted and their Education* opinionnaire, which were analyzed independently and in conjunction.

## Problem Statement

The purpose of this study was to examine the quality of educational plans in one central Florida school district, examine the opinions that the teachers who wrote the plans held toward the education of students who are gifted, provide descriptive statistics about both the teacher sample and the educational plans, and analyze whether there was a relationship between the two constructs. A problem was observed to exist in the construction of the educational plans that could potentially have a negative impact on the development of the gifted students. Under the post-positivist lens, interpretive data was used to further explore why, when, and where the problem occurred and how it could be addressed based on the views of the participants in order to determine some understanding of a phenomenon (Creswell & Clark, 2011; Panhwar et al., 2017). Given that the state established a requirement for students to have meaningful educational plans under Florida Rule 6A-6.030191 (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016) a need existed to determine whether the educational plans being written met the state standards of being meaningful, rigorous, and providing challenge.

It was posited that this problem negatively impacted the well-being of gifted students as plans may have been developed solely for compliance requirements by teachers inadequate teacher training and poorly developed team processes (Drasgow et al., 2001; Eriksson et al., 2012). It was stated that a possible cause of this problem was the opinions that the teachers held toward the education of students who are gifted (Gagné, 2018) and thus the decision was made to examine the relationship between the opinions that teachers hold towards gifted education and the quality of the plans that they produced.



## Research Questions

The research questions that guided this study were posited as:

1. In what ways and to what extent do educational plans demonstrate quality and reflect established norms and regulations for educational plans?
2. What results emerge from qualitative analysis of educational plans and can trends in the development of gifted educational plans be identified?
3. In what ways and to what extent are attitudes and opinions about the nature and education of students who are gifted associated with the quality of an educational plan?
4. In what ways, if any, is the relationship between the EP quality score and teacher attitudes and opinions moderated by the student and teacher characteristics?
  - b. How do moderator variables such as student grade level, school level (elementary, middle, high), school type (charter or non-charter), gender, ELL status, test scores, student ethnicity, socio-economic status, number of endorsed teachers, and number of educational plan writers affect the education plan quality score?

## Methodology

The methodology for this study consisted of two-phases that were undertaken to examine the relationship between the quality of educational plans created in a central Florida school district and the opinions towards gifted education those plan creators held. The first phase involved the creation of the Educational Plan Quality Assessment and application to the instrument to a sample of educational plans. The second phase implemented the *Opinions about the Gifted and their Education* opinionnaire to a teacher sample. The results from both phases of the study were analyzed independently, in order to determine the quality of educational plans and

the opinions of teachers towards gifted education in the examined district, and in conjunction to determine the association between the quality of the plans and the teacher opinions.

### Population and Data Collection

This study examined a population of 2,370 students who were identified as gifted in an urban school district in central Florida. Each of these students had an educational plan that was (purportedly) written by a team of teachers. From the population of 2,370 plans, a true random sample of 330 plans was drawn, with seven additional plans being added to ensure that each school in population was represented at least once, for a total of 337 plans. For each plan, the *Meeting Participants* form was reviewed to identify the teachers that were part of the EP writing teams for the plans in the sample. A total of 284 teachers were identified from the plans (the difference in  $n$  due to teachers who wrote multiple plans in the sample) to create the teacher sample.

After the student sample was identified, data were collected and matched to each educational plan for the following characteristics: (a) ID number, (b) current school of attendance, (c) current grade level, (d) age, (e) race and ethnicity, (f) weighted and (g) unweighted grade point average, (h) English language learner status, (i) free-and-reduced lunch status, (j) prior year reading assessment scores, and (k) prior year mathematics assessment scores. Teacher information was collected including: (a) level of school of employment, (b) number of years teaching, (c) number of years teaching gifted students, (d) gifted endorsement status, (e) age, (f) charter vs public school, (g) gender, (h) highest degree earned, and (i) race. Once the data were collected for both samples, the instruments of the study were applied.

## Instrumentation

The two phases of this study utilized two separate instruments. The first instrument, the Educational Plan Quality Assessment, was created for the purpose of this study. The instrument was initially drafted utilizing Florida Rule 6A-6.030191 (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016) as a framework with the concept of SMART goals overlaid (Doran, 1981; Ross et al., 2016). Next, a cognitive lab was conducted with an expert in the field, Dr. Susan Baum, who reviewed two educational plans while implementing the EPQA instrument and verbalizing her thoughts as she worked through the implementation of the instrument on the plans (S. M. Baum, personal communication, May 19, 2019). The instrument was altered based on expert recommendations both for content and clarity. Afterward, two pilot studies were conducted with local experts, with minor adjustments made between the two studies and, in the final pilot, the instrument received a Cronbach's  $\alpha = .881$ , a relatively high measure of reliability for the tool. Before the tool was implemented, a small interrater reliability examination was conducted to ensure that similar connoisseurs to the researcher were coding plans in a similar manner and that bias in the analysis was kept to a minimum.

For the examination of teacher opinions an extant instrument, the *Opinions about the Gifted and their Education* opinionnaire, was implemented. The instrument was found to have strong reliability, with each of the subscales receiving high alphas: support ( $\alpha = .76$ ), elitism ( $\alpha = .80$ ), acceleration ( $\alpha = .71$ ), and self-perceptions ( $\alpha = .94$ ).

## Sampling

The opinionnaire was sent to teachers through the school district and responses were collected through Qualtrics. The survey was sent to all 284 identified teachers during sampling, but 62 teachers were removed due to a mortality threat of the teachers leaving the examined

school district, leaving a potential of 222 teachers in the sample. A total of 50 teachers responded to the survey, a 22.5% response rate.

Each of the 337 plans in the student sample was analyzed with the EPQA instrument and both numeric coding and qualitative constant comparative thematic note results were stored in a secure database as the plans were reviewed. The response scores from each of the teachers were matched with the average quality scores of the educational plans that they had written in order to prepare for data analysis.

### Analysis of Data

The first phase of the study involved qualitative and quantitative data analysis. Qualitative data were collected from the educational plans as they were reviewed using the Educational Plan Quality Assessment, which provided a scoring mechanism to codify qualitative thoughts. Constant-comparative notes were taken and emergent codes identified, which were confirmed on reanalysis of the plans. Descriptive statistics and quantitative analysis were conducted using Statistical Package for Social Sciences (SPSS) versions 24.0 and 25.0 (two different versions utilized for analysis on two different computers) from the scores created by the implementation of the EPQA instrument. Descriptive statistics for sample-wide findings were provided and quality scores were examined across an array of variables to determine what differences and correlations between the quality of the plan and student characteristics existed in the sample, which were presented in tables. The qualitative themes that emerged from the analysis had been tracked on every educational plan they were found in and marked in an Excel database, which rank order the themes by commonality. The themes were reported, and figures provided as evidence to support the analysis.

The second phase of the research centered on analyzing the survey results from the OGE instrument. Descriptive statistics were presented and the results analyzed in SPSS 24.0 to determine if any teacher characteristics impacted their opinions towards the education of students who are gifted. A correlation was run between the EPQA and OGE results to assess the relationship between teacher opinions and the quality of the educational plans they wrote. Finally, multivariate analyses of variance were implemented to examine which teacher characteristics moderated the relationship between EPQA score and opinion score. The results of the analyses were presented in tables and figures, and their implications discussed in the following section.

### Discussion of the Findings

Previous researchers have examined the relationship between individualized educational plans and their quality (Grisham-Brown et al., 2002; La Salle et al., 2013; Pretti-Frontczak & Bricker, 2000; Ruble et al., 2010) the aspects of educational plans for gifted students (Besnoy et al., 2015; M. A. Clark et al., 2008; Dingle Swanson, 2016; Rogers, 2007; Van Boven, 2015), and the opinions that teachers hold towards the education of students who are gifted (Gagné, 2018; McCoach & Siegle, 2007). The current study aimed to determine what the quality of the educational plans was and if it had a relationship with teacher opinions. The theory of the differentiated model of giftedness and talent (Bannister-Tyrrell, 2017; Gagné, 2008) and the research behind teacher opinions towards gifted education (Gagné, 2018; McCoach & Siegle, 2007) were utilized as a conceptual framework for interpreting the findings. The following summaries of the findings and discussion of their meanings were organized around the four research questions that were posited at the beginning of this study. The literature reviewed was utilized under a post-positivist lens and in conjunction with the conceptual framework to

determine the difference between reality and what was considered *best practice* as it related to the development of educational plans for students who are gifted.

#### Discussion of Research Question One

*In what ways and to what extent do educational plans demonstrate quality and reflect established norms and regulations for educational plans?*

The results for research question one implied that there were strong norms at play in the creation of educational plans given the similarity observed in many plans. Given that more than half of plans fell in the quality categories of “1” or “2”, it is likely that some of the implementation issues Huefner (2000) warned of were in play, such as a lack of guidance for goals. A discussion of both the alignment with state regulations and the norms and trends in the creation of educational plans is needed to fully explore the quality of educational plans in the sample.

#### Alignment with State Regulations

Multiple items were designed to examine state regulations for educational plans, which can be seen in Appendix C. To begin with, 6A.6.030191 F.A.C. required that the EP team work with parents and provide them the opportunity to (a) provide critical information regarding the strengths of their child, (b) express concerns for enhancing the education of their children, (c) discuss the child’s need for specifically designed instruction, and (d) participate in deciding how their student will be involved in the general curriculum (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016, paras. 9–12). The purpose of this requirement was to aid the development, review, and revision of the plan as it relates to the establishment of goals and specifically designed instruction for the gifted student. In the analysis of the response items, it was found that nearly a third of educational plans had no parental input at all, and a further half

of the plans had vague statements of involvement. Additionally, over two-thirds of educational plans had either no or vague statements of student strengths that did not provide a specific benchmark of performance for establishing services that could be aligned to student strengths. This is in alignment with the majority of plans that either identified no student need or vaguely referred to a student need, and the majority of plans where the need was unrelated to a student strength.

It was clear that parental input and student strengths did not have a major impact on the development of the educational plan. This confirms Ruble et al. (2010) finding that approximately half of IEPs had no description of parental concerns. One theory for this is that the phrasing of the parent input statement in the Portal to Exceptional Education Resources created a chilling effect for input. The statement was phrased as “concerns of the parent for enhancing the education of the student.” This phrasing does not seem to be aligned with the statutory requirement for parents to provide critical input as to the strengths of their students. Huefner (2000) posited that the requirements of IEPs under IDEA might lead to teachers drafting plans before meeting with the IEP writing team, which could account for the lack of input delineated. Besnoy et al. (2015) note that parents need tangible resources and training to help them become strong advocates for their students (p. 121). The lack of these services could be an explanation for the lack of parental input in the plans. Another theory is that writers of the plans had specific programmatic ideals for the plan development and wrote the plans to meet their concepts of the requirements for an educational plan without taking parent input into consideration. There is evidence to support this given that multiple plans at some sites were observed to have nearly identical goals on all student plans despite differences in identified strengths.

At the same time, approximately one in three plans featured negative comments toward the student. Colangelo (2018) observed the phenomenon of teachers taking swipes at their students, and the parental concerns statement seemed to engender these negative comments. They were also viewed in the notes sections of the plans, where writers of educational plans wrote comments that seemed to put the students' abilities in a negative light. Given that the educational plan is a document for enhancing the strengths of a student, it is worrisome that these comments existed in the document and seems misaligned with the goals of Rule 6A-6.030191.

Another expectation from Rule 6A-6.030191 was that each educational plan have multiple goals with multiple benchmarks that considered students' strengths and needs in establishment of their goals. The EPQA analysis revealed that a third of plans did not meet this basic requirement, featuring only a single goal, and that approximately only one quarter of goals were aligned to student strengths and/or needs. Given that research has found that effective, strengths-based goals can be important in helping gifted students develop (Dingle Swanson, 2016), understanding where the goals were weak was particularly important. The styles of goals that were found to be effective on EPs for gifted students in research by Rogers (2007) and Van Boven (2015) were rarely observed in the sample of plans. Instead, it was observed that many of the weaker plans featured goals that were often aligned to match the curriculum that gifted students were already receiving in the classroom, with one goal aligned to reading and one goal aligned to mathematics, despite the strengths of the student. High-quality plans featured strong goals that encouraged students to complete strengths-aligned projects in areas of interest, or accelerated students to above-grade-level content, in alignment with best-practices for helping gifted students develop their talents (Guilbault, 2009; Reis & Morales-Taylor, 2010; VanTassel-Baska & Hubbard, 2019), however, these high-quality goals were rarely observed. Benchmarks



and short-term objectives were overwhelmingly included, yet, as with Drasgow et al.'s (2001) expectations, not all benchmarks were aligned with the present levels of performance of the student and were not always associated with the goals with which they were aligned.

Finally, the rule required that plans be developed to provide the student with appropriate services for a duration of three years (or four years in high school). Nearly all of the educational plans reviewed were appropriately designed to last throughout the expected duration, although many plans utilized vague language to describe the services that would be provided without specifically delineating the services, corroborating Ruble et al.'s (2010) concerns about quality IEPs lacking clearly identified services for students.

#### Observed Trends in EP Quality

Multiple trends of both difference and association were observed in the quality of educational plans when analyzed by teacher and student characteristics. The first significant finding was that teachers in elementary schools wrote measurably higher quality educational plans than middle and high school teachers. There was no evidence in the reviewed literature to explain this phenomenon. It is possible that this was related to a matter of timelines; plans in elementary schools are usually written by teachers who are acquainted with or have taught the student they are writing the plan for. Yet, the process for teachers in the upper grades involves visiting another school to meet the student and, if available, their current gifted teacher to develop a plan for the student once they articulate to the new school. If the teachers from both schools are available, the EP committee will likely contain two gifted endorsed teachers rather than one.

Giving credence to the former hypothesis, evidence showed that EP committees which had two gifted endorsed teachers serving in the plan development produced educational plans

with statistically significantly higher mean quality scores than plans completed with either one of zero endorsed teachers involved. This aligns with Van Boven's (2015) findings related to the importance of teacher collaboration in creating an understanding of student strengths for the proper development of educational plans and support the idea that having a teacher who knows the student may be associated with an increase in the quality of educational plans.

It was also worth discussing that no significant differences in quality existed within the plans for students based on language, twice-exceptionality, race, ethnicity, or whether they received free/reduced lunch, which was in alignment with Ruble et al.'s (2010) findings that student characteristics did not affect the IEPs of students with autism, but teacher tenure did. Given the well-documented equity issues that the field of gifted education faces (Renzulli, 2013; Turner & Spain, 2016; VanTassel-Baska & Hubbard, 2019), it would not have been surprising to find that quality was lower for underserved populations, however, that did not turn out to be the case.

Finally, it was observed that there existed a weak, but significant correlation between GPA and EP quality (slightly higher correlation for weighted GPAs). This may indicate that the quality of the plan has an impact on student achievement. Research has found that accelerating students leads to moderate gains over non-accelerated students (S. Assouline et al., 2014; Kulik & Kulik, 1992; Rogers, 2007), so high-quality plans that encourage the student to work in advanced areas of interest may lead to growth. Given the small nature of the correlation, the fact that plans were not coded to examine which forms of services they were recommending, and that this study did not examine the implementation of the plans in the classroom, further research into the relationship between the plans and student achievement would be appropriate.

## Discussion of Research Question Two

*What results emerge from qualitative analysis of educational plans and can trends in the development of gifted educational plans be identified?*

A total of six qualitative themes emerged from the constant-comparative analysis of educational plans, which were: (1) providing reading and math goals for every student, (2) a lack of parental concerns, (3) plans lacking individuality, (4) teachers providing more work, not different work, (5) a focus on measurability, (6) use of the Florida gifted frameworks. Rather than discuss the themes individually, they will be discussed in the context of the other themes and aligned with the literature and the findings from research question one to develop an understanding of why these themes became emergent in the sample.

Two of the most common themes were that students were being given both reading and math goals on a single plan despite their strength and that there was a lack of individuality among the plans. The plans that were observed to meet either of these themes led to a large amount of homogeneity between the plans, a small variance in the quality scores. This is related to skewness that was perceived in the overall scoring of the educational plan quality. From the lens of Gagné's (1995, 2000, 2004, 2008, 2015) Differentiated Model of Giftedness and Talent, which requires the identification of explicit gifts and the application of environmental catalysts in order for the student to develop their gifts into talents, educational plans written with the explicit purpose of alignment with the extant curriculum are unlikely to account for the observed range of gifts (Renzulli, 2013) that young students may have. It was found during the first research question that many plans did not overtly identify student strengths or interests, which is an essential piece of knowledge for teachers developing curricular adjustments for gifted students (S. M. Baum, personal communication, May 19, 2019; Eriksson et al., 2012; Reis &

Morales-Taylor, 2010). The lack of student strength identification aligns with the implementation of reading and math goals for students despite their strengths and interests.

Subotnik, Olszewski-Kubilius, and Worrell (2011) argued that, when considering a developmental model for gifted education, students' specific abilities matter, domains of talent have varying developmental trajectories, and opportunities need to be provided to (and taken by) young students in order for them to develop into eminence in their talent. Educational plans must consider the strengths of the student and their interests so that teachers interpreting the plans in their classroom can provide specific curricular adjustments to allow the student to develop their skills. The need for this is seen across the literature (Baum & Novak, 2010; Dingle Swanson, 2016; Hockett & Brighton, 2016; Reis & Morales-Taylor, 2010; Renzulli, 2013; Subotnik et al., 2011; VanTassel-Baska, 2004; Weber et al., 2013). Unfortunately, nearly one-third of the plans featured goals that were not designed to align with the strengths of the students. The high quantity of variance that was observed in the quality of the goals was a finding shared with prior research into the quality of IEPs (La Salle et al., 2013).

The lack of parental input on the educational plans may account for the lack of strengths-alignment. If parents do not understand how to supply information about their student and their gifts, they are not likely to do so (Besnoy et al., 2015). Given the role that parents play in helping their gifted children develop (Silverman, 1997), their input is critical in the development of quality educational plans. The importance that parents place on their students' goals and the extent to which they encourage and recognize them has an impact on student talent development (Subotnik et al., 2011). Without parental knowledge about the strengths and interests of the student being presented during the drafting stages of the EP, plans appear less likely to present individualized goals for the student. The inverse of this was clearly observed in the sample:

plans with individualized goals aligned to student strengths featured robust statements of parental input that denoted both their students' strengths and their interests (see high-quality plans in Appendix H).

The non-individuality of plans is associated with the concept of teachers providing more work rather than different work (S. M. Baum, personal communication, May 19, 2019). In a way similar to the usage of the Florida Frameworks for K-12 Gifted Learners (Weber et al., 2013) as a way to whole-cloth copy and supply non-individualized goals, it appeared that writers of educational plans often looked for simple ways of completing the plans that did not require a large amount of cognitive burden. Evaluators of IEP quality (Huefner, 2000; Pretti-Frontczak & Bricker, 2000; Ruble et al., 2010) have long noted the nature of IEP writers to find non-individualized ways of completing the plans for the sake of meeting compliance standards, and that seems to be the case in many of these plans as well.

The theme of non-individuality was further corroborated by the ways that teachers utilized the same consistent language (e.g., "with 80% accuracy on 4 out of 5 attempts") on goal after goal across plans. The language frames around measurement were being utilized as a crutch in the development of educational plans, which can be helpful in that it ensures that the goals written have measures of assessments, but can also lower the quality of a plan when these statements are applied to aspects goals that cannot be measured in such strict fashions, such as abstract goals from the gifted frameworks or affective goals. While the SMART framework requires that educational goals be measurable in order to have an impact on student education (Ross et al., 2016), the method of measurement sometimes appeared to lack face validity when reviewed for quality. Common statements, such as goals that required the student be successful in "four out of five real-world leadership scenarios with 80% accuracy," were cause for concern

not only because they appeared on more than one plan, but also because they provided goals that were not related to student needs or strengths and were presented in a way that appeared to be unmeasurable. Past researchers have circumvented this issue by providing pre-written goal frames that require parent input before the EP writing meeting (Van Boven, 2015), yet this may also contribute to the non-individuality of plans. As evidenced in the results from research question three, it seems that the primary ways to help teachers increase the quality of the plans that they produce are to provide them with professional learning related to goal writing, corroborated by Eriksson et al.'s (2012) and Moore's (2009) research, and for teachers to simply spend more time working with gifted students, which aligns with Ruble et al.'s (2010) findings.

In 2019, VanTassel-Baska and Hubbard recommended that school districts provide specific curriculum scopes and sequences for gifted learners based on their needs in specific content areas. Perhaps a step such as this would provide needed supports for teachers in the development of educational plans, or perhaps, as Zirkel (2016) recommended, more oversight and evaluation of the programs would provide structure that would lead to an increase in quality. From the thematic analysis, it is clear that there are systemic issues in the development of educational plans, although it is still unclear what causes the issues that commonly appear within the educational plans and their respective goals.

#### Discussion of Research Question Three

*In what ways and to what extent are attitudes and opinions about the nature and education of students who are gifted associated with the quality of an educational plan?*

The results from the correlative analysis showed that there was no significant relationship between the opinions that teachers hold towards the education of gifted students and the quality of the plans that they develop. This seemed to indicate that teachers did not create the plans in

accordance with the beliefs that they held towards gifted education. Multiple cases existed where teachers expressed high opinions about the acceleration of their students yet produced low-quality plans that did not push for students to receive acceleration in their education. One possible explanation for the lack of significant correlation between opinion and the quality of plans written may be related to researcher findings that teacher beliefs about gifted education only have an indirect impact on the actions they take towards the education of their students (Muijs & Reynolds, 2015), so the impact of negative beliefs on plan writing would be diminished.

Although the opinion scores for acceleration were higher in the current sample than observed in McCoach and Siegle's (2007) study using the same instrument, teacher opinions in the current sample experienced large amounts of variance, which may also have attributed to the lack of correlation given the homogeneity of the EP quality scores.

Moore (2009) found that teacher beliefs did not always have an impact on the quality of the education provided to gifted students and that teachers required professional development to accurately account for student needs in their lesson planning. This research aligned with the findings as the teacher beliefs in the current study did not have a significant association with the quality of the plans that they produced. Matheis et al. (2017) found that teachers holding incorrect beliefs about gifted students negatively affected how a teacher treated their gifted students, however, which seemed to counter the current findings, where teachers with low opinions about gifted education did not necessarily produce low-quality educational plans. Either way, it seems that the differences teachers hold in their opinions towards gifted education do not have a significant impact on the quality of the plans that they write.

## Discussion of Research Question Four

*In what ways, if any, is the relationship between the EP quality score and teacher attitudes and opinions moderated by the student and teacher characteristics?*

- a. How do moderator variables such as student grade level, school level (elementary, middle, high), school type (charter or non-charter), gender, ELL status, test scores, student ethnicity, socio-economic status, number of endorsed teachers, and number of educational plan writers affect the education plan quality score?*

The results from this analysis found that the relationship between EP quality scores and teacher opinions towards gifted education was significantly moderated by whether the teacher had completed a gifted endorsement, the number of years a teacher spent working with gifted students, and the gender of the teacher. For years researchers have claimed that specific education and learning is important for teachers of gifted students so that they can develop proper understandings of that nature and needs and of giftedness as well as how to plan curriculum and support for the students (Eriksson et al., 2012; McCoach & Siegle, 2007; Olsen, 2017; Rowan & Townend, 2016; Vreys et al., 2018), and the outcome of these endorsement courses seems to be clear in the analyses. When teachers had not completed the endorsement, their opinion had a larger effect on the quality of the plans they produced, whereas teachers who had completed the endorsement produced relatively static quality of plans despite what their opinion towards gifted education was.

When Ruble et al. (2010) analyzed the quality of individual educational plans and teacher characteristics, they found that IEP quality for children with autism was not affected by socio-economic status or race, but was majorly affected by the tenure of the teacher. This study found a similarly significant relationship between, though general tenure of the teacher was less



impactful on the quality of educational plans than specific tenure in working with gifted students. This moderating effect was found both when evaluating educational plans, and when examining the relationship between the educational plan quality and the opinions teachers hold towards gifted education. Given that educational plans were also found to be stronger when a teacher with a gifted endorsement was writing the plan, and stronger still with more than one endorsed teacher was working on the plan, it may be beneficial to develop systems that ensure certain teachers are working on the educational plans in their schools.

### Limitations

There were multiple limitations to the validity of this study, specifically instrument decay, location threat, and subject threat. The instrument decay threat was present as a single researcher was responsible for coding all 337 plans in the sample, although efforts were made to ameliorate this threat by having an independent researcher verify a random sample of the plans coded, and multiple plans were initially coded by a team to ensure coding reliability. While procedural safeguards were implemented to reduce the potency of the threat, and there were benefits to the methodology that allowed for the qualitative aspects of the study to take place, a threat to the validity still exists and it is a noted limitation of the study. Furthermore, while the connoisseur methodology was essential for the development and implementation of this study, the possibility for observer bias exists in that the instrument developed reflects the attitudes and opinions of the researcher. While an extensive literature review was undertaken to make the instrument as objective as possible, the nature of examining the quality of a product makes it impossible for true objectivity to exist without a potential for some observer bias.

A location threat was present given that only a single school district was examined in this study. While utilizing random sampling and providing controls to ensure the sample was

representative within the examined population helped assuage the location threat, it seemed unlikely to expel the threat completely. Reproduction of this study or implementation of the EPQA within other school districts may further validate this research, however, it was a limitation of the current study. As such, it is recommended that future research continue the analysis of educational plans in other locations to address the location threat.

A subject threat also exists in whether the examined school district is representative of other districts. While the demographics of the gifted population were provided, and no significant differences were found in educational plans for students based on their race or ethnicity, a study that was focused on examining the problem with a critical race theory lens is needed to fully explain whether the results here hold throughout the state of Florida and into other states.

Another subject threat exists in that the current study did not seek to determine what training each teacher had in the production of educational plans outside of whether they held their gifted endorsement. Since teachers may have received their endorsements in state other than Florida, or received the endorsement before the current standards were set, a threat exists in that some of the examined subjects who were in the sample that held their endorsement may not have been exposed to the proper form EP development, thereby limiting the validity of the results. A study with an experimental structure that examines the quality of teachers' educational plan writing both before and after the gifted endorsement and measures the changes would add the knowledge and understanding about the variables that predict quality educational plans. In the same vein, the Educational Plan Quality Assessment may provide a useful measure for providing instruction in the development of quality educational plans in Florida and research that implements it in specific professional learning for teachers could also be useful in

determining the specific amount of hours of training needed to help teachers become quality plan producers. Overall, while multiple limitations existed in the current study, steps were taken to assuage the worst effects from the threats, but future research into the area of plan development is needed to fully make sense of the problem gifted students face in relation to the quality of gifted plans.

### Implications for Practice

Rogers (2007) found that educational plans for students who are gifted conferred an array of benefits by leading teachers to plan for student needs specifically. Unfortunately, many of the educational plans in the sample did not supply specific goals that were aligned to student needs, which were needed for teachers to be able to effectively plan for their students. Given that receiving a gifted endorsement has been found by this study to be associated with an increase in the quality of educational plans produced by teachers, it would be beneficial for the Educational Plan Quality Assessment to be blended into endorsement courses to help teachers develop an understanding of quality educational plans as they train.

Many gifted programs go without oversight, evaluation, reporting, or accountability (National Association for Gifted Children, 2015b), so the EPQA also has utility for educational leaders as the instrument provides a baseline for evaluating educational plans, which can be implemented as a starting point for larger evaluations of the effectiveness of gifted programs within a school or school district. Educational administrators may be able to find applications for the EPQA in their own schools to help increase oversight and accountability in their gifted education programs in order to develop programs that will best serve their gifted students.

Research has found large variance in the quality of goals developed for students in classrooms (La Salle et al., 2013; Ross et al., 2016) and the policies for goal development

(DeMink-Carthew et al., 2017). Teachers can benefit by implementing the structure of the Educational Plan Quality Assessment to their own EP writing to ensure that the goals are well developed. Applying the EPQA to educational plans as they are written could provide a potentially useful self-examination for teachers as they draft their plans to ensure that a quality document is being produced. Additionally, the EPQA can be implemented with current training programs that exist for teachers in order to help them develop their ability to write goals that can benefit gifted students. Providing competency badges in goal development or educational plan development could provide utility in helping teachers write more robust goals that encompass student development via independent investigation of real problems (Type III Enrichment, Renzulli, 2013), or more grounded usage of the Florida Frameworks for gifted education. The EPQA provides a useful framework for self-diagnosing the quality of educational plans as they are written and can be utilized as a check to ensure that quality plans are drafted before they are applied to the actual education of students who are gifted.

Finally, it is important for practitioners, both teachers and administrators, to consider the prevalent themes current in the educational plans as they evaluate the ways in which they write EPs themselves. Specific credence should be given to eliciting parental input related to the strengths and interests of their students. These strengths and interests should be corroborated with data, utilized to develop the student needs, and employed as a base for the development of strengths-aligned goals for the student. Each student should be considered individually as the plan is developed around them, rather than designing the plans to meet the systems that are already in plans for gifted education within the school. If these changes are not made, poor quality educational plans will likely continue to be the norm within school districts.

Given the size and variance of the population that was examined ( $N = 2,370$ ), this research may be generalized to students throughout the state of Florida, at least in districts with similar, urban demographics. The future utility of the Education Plan Quality Analysis instrument will be determined by its implementation in other districts. While there was not a normal distribution in the quality of the plans in the examined county, the instrument was found to have high reliability, which indicates that it could benefit other districts to implement the EPQA. Appendix A contains a copy of the instrument, which is free for usage in the pursuit of developing a greater understanding of the quality of educational plans throughout Florida.

#### Implications for Policy Makers

Given that a large amount of the requirements for educational plans came from policy, implications from this study should also apply to policymakers. A major issue within the policy the development of educational plans, 6A-6.030191, was that it provided the language for parental input as “concerns of the parent.” Changing the language around parental concerns to emphasize parent views of student strengths and interests rather than concerns for education could be a useful policy alteration. The current language leads to plans that are designed with a deficit-based lens that leads to many plans completely ignoring the positive aspects of a students’ giftedness to instead focus on correcting the student. A term such as “parental input” or “parent-perceived strengths of the student” could lead to a strengths-based view being adopted in the development of the plans instead.

It is also recommended that more specific guidance for the development of educational plans be provided. While the Resource Guide for the K-12 Florida Gifted Plan does provide a method of assessment for the requirements of educational plans, it is not a robust tool and often leaves many aspects of the plan evaluation open to interpretation. Providing more robust, though

not necessarily more strict, guidelines could help to improve the quality of educational plans for gifted students.

Finally, the findings of this research revealed that both the amount of time a teacher spent teaching gifted students and whether they completed a gifted endorsement had an impact on the relationship between the teachers' opinions towards gifted education and the quality of the educational plans that they produced. From this finding, there is an implication that policy should account for who specifically is on the EP writing team. While 6A-6.030191 currently requires that "at least one teacher of the gifted program" be present (Development of Educational Plans for Exceptional Students Who Are Gifted, 2016, para. 23), perhaps a requirement that a member of the team specifically hold their gifted endorsement could lead to an increase in the quality of educational plans that are produced for students who are gifted throughout the state of Florida.

#### Recommendations for Future Research

The implementation of the Educational Plan Quality Assessment opened an avenue for multiple future studies that further explore the quality of educational plans, the relationship that plans have to the teachers that write them, and for the students that the plans are written. It was outside the scope of this research to determine whether the educational plan has an impact on student achievement. Although the weak correlation between GPA and quality of plans ( $r = .168, p = .033$ ) was reported as an ancillary finding, a more thorough analysis that compares different measures of student achievement with the quality of their educational plans, particularly when controlling for the implementation of the plan, would help develop an understanding of the impact that quality educational plans have. Given that the assessment of teacher beliefs found that the attitude a teacher holds towards giftedness has no significant association ( $p = .430$ ) with

the quality of the educational plan the teacher created, future research that examines other variables that may be associated with the quality of plans a teacher produces, such as type of teacher training, is also recommended.

Regarding the implementation of plans, the current study did not follow educational plans through to the fidelity of their implementation. Even a plan which received a quality score of five would have no practical impact on the student if the teacher never reviewed and implemented the goals from the educational plan. A future study which examined the implementation of educational plans in the classroom, whether teachers hew close to the goals, or indeed, even measure them, would help to elucidate the value of the educational plan for students who are gifted. Determining a measure for the quality of plan implantation would also provide a useful variable for comparing against the quality of plans for future differential and associative studies.

Another area for future research revolves around the fact that the Educational Plan Quality Assessment had no formalized method to measure the originality of goals. Multiple identical goals were observed in qualitative analysis, but no action could be taken in the EPQA due to the limitations of the study. A future study that examined the originality of goals and determined the quantity of repetition may further illuminate the thematic issues identified in the research and add to the literature around the evaluation of programs for students who are gifted. Moreover, this research did not examine the concept of teacher efficacy (Hattie, 2009), specifically as it applies to writing educational plans, which may be a predictor of the quality of educational plans that are written and is worth exploring.

Concerning program evaluation, one requirement of 6A-6.030191 F.A.C. is that an educational plan last for a duration of three years between a review of plans (four years for high

school) versus one year between reviews for IEPs. The fact that many of the examined plans had goals that could ostensibly be completed during a single year warrants the question of whether this practice is effective. A study that examines whether the quality or impact of an educational plan diminishes over time is needed as a step to determine whether or not quality educational plans are an essential aspect of developing a quality gifted program. Similarly, a recommendation was made that the language around parental input be sharpened by policymakers. A future research study that examined the explicit impact that parental involvement has on the quality of the educational plan would further buttress this policy recommendation.

As stated in the implication section, the EPQA is distinctly derived from educational plan requirements for the state of Florida. This means that the instrument is intrinsically aligned with the values of gifted education in Florida, which may not be representative of the educational values of other states. A study that examines whether the instrument is valid in other states, or, if not, follows these methodologies to create a new instrument for states with differing requirements would have value, as would a study that replicates this study in other districts.

Finally, it is worth noting that this study did not consider student perceptions of their own educational plans. Future research that examined student perceptions and compared them to the quality of the educational plans could have high value in further understanding plan value. This would be especially true if the research examined the achievement of these student populations at the same time. A full summary of implications and recommendations can be seen in Table 32.



Table 32

*Recommendations for Practitioners, Policy Makers, and Researchers*

Issue	Recommendations		
	Practice	Policy	Research
Goals not aligned to student needs	Emphasize need and goal alignment in gifted endorsement training.	Legislate and enforce gifted endorsement as need for educational plan development.	Research the impact educational plans have when considering classroom fidelity of implementation.
Many gifted programs go without oversight	Administrators implement EPQA for oversight of EP development.	Require teachers on EP teams to get gifted endorsement to increase awareness.	Examine the repetition of goals and their quality to determine where oversight can have impact.
Broad range of quality in educational plans	Teachers utilize EPQA as a guide for developing quality educational plans.	Provide more specific guidance as to expectations for EPs.	Examine impact of differing quality of plans on student achievement.
Lack of parental input in plan development	Train teachers to elicit parental input in the development of EPs	Change language from “concerns of parents” to emphasize input about student strengths.	Examine the impact that parental input has on the relationship between EPs and student achievement.

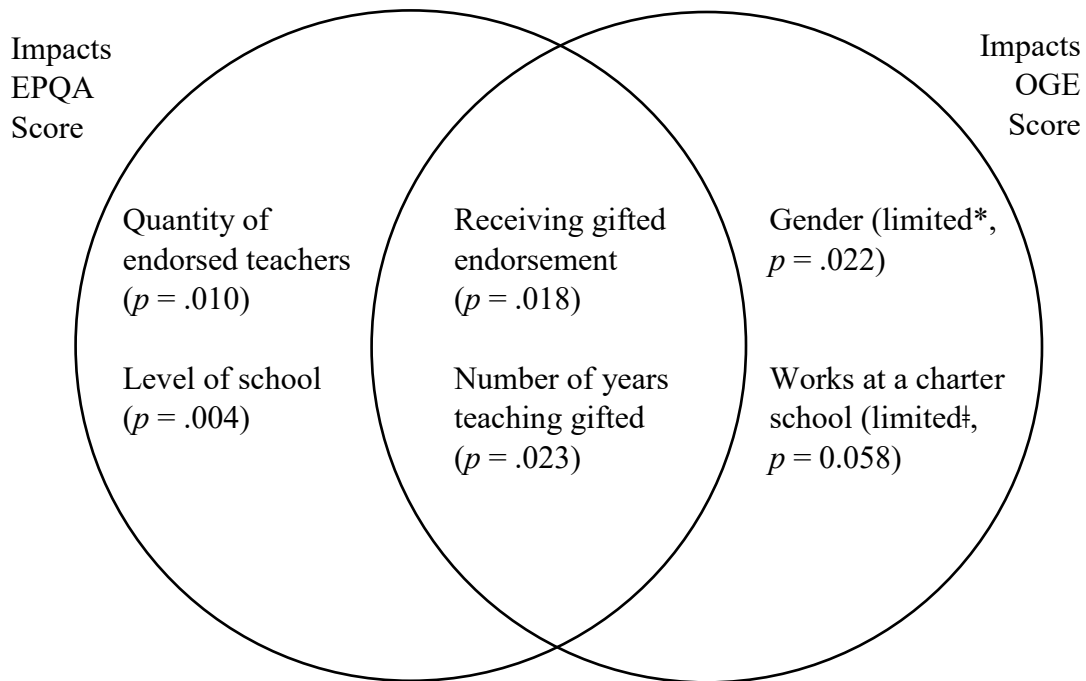
Conclusion

The findings of this study add to the small body of literature around educational plan setting for gifted students. The investigation revealed that a majority of the documents that were written in the sample were not aligned with the strengths or interests of the student they were written for, but instead were written to align with the curriculum to which the student will be

exposed. Moreover, regardless of the goals and needs identified in the plan, students are typically assigned whatever single form of curricular service the school offers for students at their level, such as consultation or accelerated curriculum. A further assessment of teacher beliefs found that the attitude a teacher holds towards giftedness has no significant association with the quality of the educational plan the teacher created, thereby indicating that the quality of the plan is tied to other variables.

The simple fact that many plans produced at a single school all shared similar variables, such as identical goals or statements about student ability, despite who the writer of the plan was, would indicate that the quality of the plan is more closely associated with the school in which the plan was written than the beliefs of the individual writing a plan. The number of years the teacher spent teaching gifted students and whether they held a gifted endorsement were found to be significant moderators between the quality of the plan produced and the opinion the teacher held towards gifted education, which indicated that there should be an emphasis on ensuring that experienced teachers, who hold their gifted endorsements, work on the educational plans.

The implications of this study show that changes must be made to the current process for developing educational plans. In the current form of the process, too little credence is given to parental input and too much of the process is not individualized to the developmental needs of individual students. Figure 30 is a visual representation of the effects that lead to differences in the quality of educational plans and has utility in understanding which variables may be useful for altering the EP development process. If changes to this process do not occur, the quality of educational plans will likely continue to be poor and the ability for schools to influence the development of gifted students will not increase.



\*Gender result validity limited due to small sample size for males  
 ‡Charter results limited due to  $p > .05$

Figure 30. Visual Representation of the Impacts on Educational Plans

### Summary

The current study examined whether there was a relationship between the quality of educational plans and the opinions towards gifted education of the teacher who wrote the plans. Chapter Five began with a summary of the entire study, including a review of the problem statement and research question, methodology, and analysis of data. Then, a discussion of the results for each of the research questions was provided and a conclusion for the analysis was present. Implications for both practitioners and policymakers were presented, limitations of the study were reviewed, and recommendations for future research were produced.

## APPENDIX A: GIFTED EDUCATION PLAN QUALITY ASSESSMENT

*Figure 31.* Education Plan Quality Assessment

## DEMOGRAPHICS

1. Student ID Number: \_\_\_\_\_ Name of EP Reviewer \_\_\_\_\_
2. Start Date of EP    Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_
3. End Date of EP    Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_
4. Age of Student    Year \_\_\_\_\_ Month \_\_\_\_\_
5. Grade Level of Student at EP Writing 1 2 3 4 5 6 7 8 9 10 11 12
6. Current Grade Level of the Student    1 2 3 4 5 6 7 8 9 10 11 12
7. Gender     Male     Female
8. Ethnicity (Hispanic or Latino)     Yes     No
9. Race     American Indian or Alaska Native     Asian     Black     Native Hawaiian     White
10. GPA (If Applicable) \_\_\_\_\_
11. English Language Learner Code     LF     LY     LZ     Not Applicable
12. Free/Reduced Lunch Status  
 Identified Eligible     Identified Reduced     Not Identified
13. FSA Reading Score \_\_\_\_\_ FSA Math Score \_\_\_\_\_ (Algebra 1 or Geometry score if applicable)
14. The results of student's initial evaluation for gifted services are discussed     Yes     No
15. The EP discusses the student's language needs and challenges student in primary language, if student is marked ELL     Yes     No     N/A

## Review of Overall EP

**Instructions:** The evaluation form has four major parts – A, B, C, and D. Part A, Present Levels of Performance Segment, evaluates the descriptions of the present levels of performance and needs for services.

Part B is concerned with the quality of the goals. The goals are the board objectives; the measurable benchmarks are the specific skills that are targeted under the goals.

Part C is concerned with the services that the student is receiving and whether or not they are acceptable. It is recommended that the entire EP be reviewed before it is scored.

Part D is concerned with the general attributes of the Educational Plan and timelines of the document.

The following data is collected for the purpose of disaggregating types of goals and does not have a bearing on the score of the Educational Plan:

1. Goal Type 1    Project Oriented    Task Oriented    Affect Oriented
2. Goal 1 Subject    Math    ELA    Leadership    Real World    Non-Academic
3. Goal Type 2    Project Oriented    Task Oriented    Affect Oriented
4. Goal 2 Subject    Math    ELA    Leadership    Real World    Non-Academic

The following scale is used on Parts A – C to score each individual item. Binary items will be explained in the item definition and are coded as either “0” or “2”.

---

0	1	2
Not included/Not at all	Incomplete/Somewhat	Yes/Explicitly Stated

---

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**Part A: Demographics and Present Level of Performance Indicators**

*Directions:* Determine if the following parts of the present levels of performance have been written to establish a need for gifted services as required in Rule 6A-6.030191, FAC.

<b>Part A Indicators</b>	<b>0</b>	<b>1</b>	<b>2</b>
1. Demographic information for the student has been recorded in the appropriate section. (Code “0” if information is absent, Code “1” if information is present).	<input type="checkbox"/>	<input type="checkbox"/>	
2. The school listed on the EP matches the school the student is currently attending (Code “0” if there is a school mismatch, Code “1” if the school on the EP matches the currently attended school).	<input type="checkbox"/>	<input type="checkbox"/>	
3. Parental concerns/desires for student education are described (Code “0” if the area is blank, Code “1” if <i>any</i> concerns/desires are described, Code “2” if concerns are well described).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Educational Plan’s Present Levels of Performance segment identifies the areas of strength of the gifted student (Code “0” if no area of strength is identified, Code “1” if strengths are mentioned or implied, Code “2” if the area of strength is explicitly noted).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Educational Plan’s Present Levels of Performance segment identifies the interests of the student (Code “0” if no interests are identified, Code “1” if interests are mentioned or implied, Code “2” if interests are explicitly noted).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Educational Plan’s Present Levels of Performance segment identifies areas of need beyond the general curriculum for the gifted student (Code “0” if no needs are identified, Code “1” if needs are generic, Code “2” if the need is explicitly noted).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. The areas of need presented relate to both the student’s individual strengths and the ability of the school to provide services for the student (Code “0” if statement of need is misaligned with student strength, Code “2” if statement is fully aligned).	<input type="checkbox"/>		<input type="checkbox"/>
8. Strengths and Interest section of Present Levels of Performance has specific assessment data describing the student’s current performance on goal-related strengths, concepts, and skills (Code “0” if no specific data is presented, Code “1” if strengths and interest data are referenced vaguely without specifics, Code “2” if data provides specifics).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part A Score \_\_\_\_\_ / 14 Possible Points

**Part B: Measurable Annual Goals Analysis**

*Directions:* Determine if the following parts of the measurable annual goals have been written to the requirements of Rule 6A-6.030191, FAC. If the goal is designed to not challenge the beyond the general curriculum, assign “0” points and discontinue for the goal score.

<b>Part B Indicators</b>	<b>0</b>	<b>1</b>	<b>2</b>
9. The first goal is written in a clear and specific tone so that the goal is plainly understandable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The first goal clearly relates to the strengths and needs of the student identified in the Present Levels of Performance (Code “1” if the goal is in the same sphere of knowledge as the strengths, Code “2” if the goal is clearly related to a strength).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The first goal is designed to be an objective that the student can realistically attain while still providing challenge (Code “0” if the goal would put an unrealistic burden on the student or is unmeasurable, Code “1” if to goal is realistic but unchallenging, Code “2” if the goal can be attained and will challenge the student).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



<b>Part B Indicators (Continued)</b>	<b>0</b>	<b>1</b>	<b>2</b>
12. The first goal has reasonable, rigorous targets/outcomes presented in measurable terms (Code “0” if the goal is unmeasurable or evaluates a quality that cannot be measured, Code “2” if the goal is measurable).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The first goal has a time-bound date by which the goal should be met identified (Code “0” if goal is not time-bound, Code “2” if goal is time-bound).	<input type="checkbox"/>		<input type="checkbox"/>
14. The first goal identifies the method of assessment to be used in determining success on meeting the goal (Code “0” if no method is identified, Code “1” if there is not specificity in the method of assessment, Code “2” if a specific method is identified).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. The first goal meets the student’s needs beyond general curriculum established in the Present Levels of Performance, with an eye toward differentiation rather than increased workloads.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The first goal has two short-term objectives or benchmarks. (Code “1” if a single benchmark is present, code “2” if multiple benchmarks are present)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. The short-term objectives of the first goal are designed to challenge the student to achieve their goals in a mastery-based manner. (Code “1” if the benchmarks are aligned with the goals, Code “2” if the benchmarks encourage a mastery-based approach for goal attainment.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. The second goal is written in a clear and specific tone so that the goal is plainly understandable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. The second goal clearly relates to the strengths and needs of the student identified in the Present Levels of Performance (Code “1” if the goal is in the same sphere of knowledge as the strengths, Code “2” if the goal is clearly related to a strength).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The second goal is designed to be an objective that the student can realistically attain while still providing challenge (Code “0” if the goal would put an unrealistic burden on the student or is unmeasurable, Code “1” if to goal is realistic but unchallenging, Code “2” if the goal can be attained and will challenge the student).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. The second goal has reasonable, rigorous targets/outcomes presented in measurable terms (Code “0” if the goal is unmeasurable or evaluates a quality that cannot be measured, Code “2” if the goal is measurable).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. The second goal has a time-bound date by which the goal should be met identified (Code “0” if goal is not time-bound, Code “2” if goal is time-bound).	<input type="checkbox"/>		<input type="checkbox"/>
23. The second goal identifies the method of assessment to be used in determining success on meeting the goal (Code “0” if no method is identified, Code “1” if there is not specificity in the method of assessment Code “2” if a specific method is identified).	<input type="checkbox"/>		<input type="checkbox"/>
24. The second goal meets the student’s needs beyond general curriculum established in the PLP, with an eye toward differentiation rather than increased workloads.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. The second goal has two measurable benchmarks (Code “1” if a single benchmark is present, code “2” if multiple benchmarks are present)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. The short-term objectives of the first goal are designed to challenge the student to achieve their goals in a mastery-based manner. (Code “1” if the benchmarks are aligned with the goals, Code “2” if the benchmarks encourage a mastery-based approach for goal attainment.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. A statement of how the student’s progress towards their goals will be measured and reported to the parents is included (Code “0” if no statements or methods are identified, Code “1” if they are partially identified, or only identified for a single goal, Code “2” if they are fully identified).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part C: Exceptional Education Services

*Directions:* Determine if the following parts of the exceptional education services segment of the EP meet the requirements of Rule 6A-6.030191, FAC

Part C Indicators	0	1	2
28. Frequency, location, and duration of specific services are identified (Code “0” if only one of three variables identified, Code “1” if two are present or some variables are presented in an illogical manner, Code “2” if all three are identified in a logical manner).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. The provided services are acceptable for the grade level of the student as established in the Resource Guide for the Education of Gifted Students in Florida (Code “0” if the services are not in the recommended age range, Code “2” if the services are in the recommended age range).	<input type="checkbox"/>		<input type="checkbox"/>
30. There is a statement of what and how specially designed instruction is to be provided to the student (Code “0” if not statement is present, Code “1” for a partial, incomplete, or general statement, Code “2” if the statement provides specific details about the instruction the student will receive and how they will receive it).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part C Score \_\_\_\_\_ / 6 Possible Points

Part D: General Attributes

*Directions:* Determine if the overall quality and attributes of the Educational Plan

Part D Indicators	0	1	2
31. All parts of the educational plan are strengths-focused (Code “0” if any part of the plan comments negatively on the student, Code “1” if the EP is vaguely strengths-oriented or at least positively worded, Code “2” if the plan focuses on explicitly student’s strengths).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. The EP is currently active and has not expired (Code “0” if the EP has expired, Code “1” if it is active).	<input type="checkbox"/>	<input type="checkbox"/>	
33. The timeline of the EP was written for a three (3) year duration for K-8 students, or a four (4) year duration for high school students (Code “0” if the duration does not follow timeline, Code “1” if it does).	<input type="checkbox"/>	<input type="checkbox"/>	
34. Thorough notes were taken throughout the duration of the meeting of the Educational Plan Committee (Code “0” if no, poor, or irrelevant notes were taken, Code “1” if a brief, useful summary was recorded, Code “2” if thorough notes were taken).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part D Score \_\_\_\_\_ / 6 Possible Points

Total Score Parts A – D \_\_\_\_\_ / 64 Possible Points

## APPENDIX B: PERMISSIONS TO UTILIZE EXTANT INSTRUMENTS

## Re: Permission to Use Instrument

Ruble, Lisa <lisa.ruble@uky.edu>

Thu 3/14/2019 3:57 PM

To: David Maddock

Hi David,

Thank you for your message. Yes, you may use her instrument. Good luck with your work! Lisa

Sent from my iPhone,  
please excuse any typos.

### Permission to Use Instrument

David Maddock

Thu 3/14/2019 3:08 PM

To: lisa.ruble@uky.edu <lisa.ruble@uky.edu>

Hello Dr. Ruble,

My name is David Maddock and I am a doctoral student at the University of Central Florida. I am working on a dissertation about examining the quality of educational plans for gifted students and in my literature review, I came across your text, "Examining the Quality of IEPs for Young Children with Autism". The framework that you created for evaluating IEPs has practical application in working with gifted students, though there are differences as the gifted educational plan in Florida has far fewer indicators than the IEP under IDEA. I would like to ask your permission to use your instrument as a framework for developing a new instrument centered around working with gifted students based on the indicators laid out by that state of Florida in their state plan for gifted. Please let me know if I have your permission to use this tool.

Thank you for your time and consideration,

David Maddock, MA

K-12 Gifted Resource Teacher

Certified Microsoft Innovative Educator

Elementary Curriculum and Instruction

*Figure 32.* Permission to Adapt the Examining the Quality of IEPs for Young Children with Autism Instrument from Dr. Lisa Ruble

FG

François Gagné &lt;fysgagne@gmail.com&gt;

Mon 4/22/2019 8:31 AM

...

Dear sir,

It is with pleasure that I authorize you to use the OGE, if that is what you wish to do. Please take note of my warnings and suggestions from the article you cite. Also, could you give me more details about that "part B" that is missing in the article?

Thanks, and best wishes in your PhD project.

FyG

...

DM

David Maddock

Sat 4/20/2019 11:22 AM

fysgagne@gmail.com



Good afternoon Dr. Gagne,

I am a graduate student at the University of Central Florida seeking my doctorate in education leadership. I am interested in investigating individual educational plans for gifted students in Florida and examining if teacher beliefs have an impact on the quality of the plans.

I recently read your article "Attitudes toward gifted education: Retrospective and prospective update" and found that the sample tool would be ideal for my study. The article copy I have also references a "Part B" that I could not find. I understand from the article that you found flaws with the tool, yet I haven't found another tool for analyzing behaviors towards the education of students who are gifted. I intend on using the opinionnaire in a method similar to McCoach & Siegle's work to obtain a score for "positive general attitude" and "negative general attitude" to use in analysis against the "quality score" of educational plans that are being assessed on a self-developed tool (attached).

I am seeking permission to use *Opinions About the Gifted and Their Education*. I would like to use the opinionnaire as an online survey for data collection for my dissertation, using a secure Qualtrics link that is only provided to participants. I will provide a citation and copyright notice on the online survey. I intend on publishing my dissertation within the UCF system, but I do not plan on seeking any financial profit from it.

If you agree to permit me to use this survey, please let me know via email. Also, if you have additional resources of feedback for refining, expanding, or updating my research, I would be appreciative.

Thank you and I look forward to hearing from you,

David Maddock

Figure 33. Permission to Utilize the Opinions About the Gifted and Their Education Instrument from Dr. François Gagné

Siegle, Del <del.siegle@uconn.edu>

Tue 9/24/2019 11:29 AM

David Maddock ✉

**[EXTERNAL] - This email originates outside of The School District of unless you recognize the sender.**

Feel free to use any of our material. Good luck on the research.

-Del

David Maddock

Tue 9/24/2019 10:40 AM

del.siegle@uconn.edu ✉



Hello Dr. Siegle,

My name is Dave Maddock and I am a doctoral candidate at the University of Central Florida. We met at Confratute a few times in years past. I am working on a dissertation examining the quality of educational plans for gifted students in Florida and I am utilizing Dr. Gagne's *Opinions of the Gifted and their Education* opinionnaire in order to determine if there is a relationship between teacher attitudes and quality of the plans. I have already received permission from Dr. Gagne' to use his instrument. I am writing to you to request permission to use your and Dr. McCoach's subscales for the opinionnaire from the 2007 article *What Predicts Teachers' Attitudes Toward the Gifted?*. Please let me know if I have your permission to use these subscales for the instrument.

Thank you for your time and consideration,

David Maddock, MA

Research and Evaluation Specialist

Certified Microsoft Innovative Educator

Research, Evaluation, and Assessment

*Figure 34. Permission to Utilize Adapted Scoring for the Opinions About the Gifted and Their Education Instrument from Dr. Del Siegle*

APPENDIX C: RULE 6A-6.030191 F.A.C. ITEM ANALYSIS

6A-6.030191 Development of Educational Plans for Exceptional Students Who Are Gifted	Instrument Item Location
<p>Educational Plans (EPs) are developed for students whose only identified exceptionality is gifted. For a student identified as gifted in accordance with rule 6A-6.03019, F.A.C., and who is also identified as a student with a disability, as defined in paragraph 6A-6.03411(1)(f), F.A.C., the strengths, needs and services associated with a student’s giftedness must be addressed in the student’s individual educational plan (IEP) consistent with the requirements in rule 6A-6.03028, F.A.C. Parents are partners with schools and school district personnel in developing, reviewing, and revising the EP for their child. Procedures for the development of the EPs for exceptional students who are gifted, including procedures for parental involvement, shall be set forth in each district’s Policies and Procedures for the Provision of Specially Designed Instruction and Related Services to Exceptional Students document and shall be consistent with the following requirements.</p> <p>(1) Role of parents. The role of parents in developing EPs includes:</p> <ul style="list-style-type: none"> <li>(a) Providing critical information regarding the strengths of their child;</li> <li>(b) Expressing their concerns for enhancing the education of their child so that they receive a free appropriate public education;</li> <li>(c) Participating in discussions about the child’s need for specially designed instruction;</li> <li>(d) Participating in deciding how the child will be involved and progress in the general curriculum; and,</li> <li>(e) Participating in the determination of what services the school district will provide to the child and in what setting.</li> </ul> <p>(2) Parent participation. Each school board shall establish procedures that shall provide for parents to participate in decisions concerning the EP. Such procedures shall include the following:</p> <ul style="list-style-type: none"> <li>(a) Each district shall take the following steps to ensure that one or both of the parents or legal guardians of a student who is gifted is present or is afforded the opportunity to participate at each EP meeting: <ul style="list-style-type: none"> <li>1. Notifying parents or legal guardians of the meeting early enough to ensure that they will have an opportunity to attend; and,</li> <li>2. Scheduling the meeting at a mutually agreed on time and place.</li> </ul> </li> <li>(b) A written notice of the meeting must be provided to the parents or legal guardians and must indicate the purpose, time, location of the meeting, and who, by title and or position, will be attending. The notice must also include a statement informing the parents that they have the right to invite an individual with special knowledge or expertise about their child.</li> <li>(c) If neither parents or legal guardians can attend, the school district shall use other methods to ensure parent participation, including individual or conference telephone calls or video conferencing.</li> <li>(d) A meeting may be conducted without a parent in attendance if the school district is unable to obtain the attendance of the parents. In this case, the district must have a record of its attempts to arrange a mutually agreed on time and place such as: <ul style="list-style-type: none"> <li>1. Detailed records of telephone calls made or attempted and the results of those calls;</li> <li>2. Copies of correspondence sent to the parents and any responses received; or</li> <li>3. Detailed records of visits made to the parents’ home or place of employment and the results of those visits.</li> </ul> </li> <li>(e) The district shall take whatever action is necessary to ensure that the parents understand the proceedings at an EP meeting, which may include arranging for an interpreter for parents and students who are deaf or whose native language is a language other than English.</li> <li>(f) The district shall give the parents a copy of the EP at no cost to the parents.</li> </ul>	<p>#A.3</p>



<p>(3) EP team participants. The EP team shall include the following participants:</p> <p>(a) The parents of the student in accordance with subsection (2) of this rule;</p> <p>(b) One regular education teacher of the student who, to the extent appropriate, is involved in the development and review of the student’s EP. Involvement may be the provision of written documentation of the student’s strengths and needs;</p> <p>(c) At least one teacher of the gifted program;</p> <p>(d) A representative of the school district who is qualified to provide or supervise the provision of specially designed instruction to meet the unique needs of students who are gifted, is knowledgeable about the general curriculum, and is knowledgeable about the availability of resources of the school district. At the discretion of the school district, one of the student’s teachers may be designated to also serve as the representative of the school district;</p> <p>(e) An individual who can interpret the instructional implications of evaluation results who may be a member of the team as described in paragraphs (3)(b)-(d) of this rule;</p> <p>(f) At the discretion of the parent or the school district, other individuals who have knowledge or special expertise regarding the student. The determination of knowledge or special expertise of any individual shall be made by the party who invites the individual to be a member of the EP team; and,</p> <p>(g) The student, as appropriate.</p> <p>(4) Contents of EPs. EPs for students who are gifted must include:</p> <p>(a) A statement of the student’s present levels of performance which may include the student’s strengths and interests; the student’s needs beyond the general curriculum; results of the student’s performance on state and district assessments; and evaluation results;</p> <p>(b) A statement of goals, including benchmarks or short-term objectives;</p> <p>(c) A statement of the specially designed instruction to be provided to the student;</p> <p>(d) A statement of how the student’s progress toward the goals will be measured and reported to parents; and,</p> <p>(e) The projected date for the beginning of services, and the anticipated frequency, location, and duration of those services;</p> <p>(5) Considerations in EP development, review and revision. The EP team shall consider the following:</p> <p>(a) The strengths of the student and needs resulting from the student’s giftedness.</p> <p>(b) The results of recent evaluations, including class work and state or district assessments.</p> <p>(c) In the case of a student with limited English proficiency, the language needs of the student as they relate to the EP.</p> <p>(6) Timelines. Timelines for EP meetings for students who are gifted shall include the following:</p> <p>(a) An EP must be in effect at the beginning of each school year.</p> <p>(b) An EP shall be developed within thirty (30) calendar days following the determination of eligibility for specially designed instruction and shall be in effect before the provision of these services.</p> <p>(c) Meetings shall be held to develop and revise the EP at least every three (3) years for students in Kindergarten – grade 8 and at least every four (4) years for students in grades 9-12. EPs may be reviewed more frequently as needed, such as when the student transitions from elementary to middle school and middle to high school or if the student’s parent or teacher requests a review.</p> <p>(7) EP implementation. An EP must be in effect before specially designed instruction is provided to an eligible student and is implemented as soon as possible following the EP meeting.</p> <p>(a) The EP shall be accessible to each of the student’s teachers who are responsible for the implementation.</p> <p>(b) Each teacher of the student shall be informed of specific responsibilities related to</p>	<p>#A.4 #A.5 #A.6 #A.8</p> <p>#B.16/24 #C.30</p> <p>#B.25 #B.12/20 #B.14/22 #B.13/21 #C.26</p> <p>#A.7#B.10/18 #B.15/23 #C.29</p> <p>#D.33 #D.32</p>
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<p>implementing the student's EP.</p> <p><i>Rulemaking Authority 1001.02(1), (2)(n), 1003.01(3)(a), (b), 1003.57(1) FS. Law Implemented 1001.42(4)(l), 1003.01(3)(a), (b), 1003.57 FS. History—New 9-20-04, Amended 1-7-16.</i></p>	
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APPENDIX D: TRANSCRIPT OF COGNITIVE LAB WITH DR. SUSAN BAUM

D: So question A1.

S: \*reading\* Okay. For A2 I would need to look where the student is attending school.

D: We have that in the database with the files. A3

S: I don't- "The concerns of the parent." The word concerns sounds negative. Maybe "the parent is aware", or "parent believes"? This should be worded positively.

D: Right, so this came out of the state language.

S: \*Reading\* "What indicators from the past show the strengths"? What I don't like is levels of performance. That's the phrase that I think, I don't find it useful in planning. I would change it to something, maybe something is- "the strength is explicitly noted." If there is a way to make this a little more specific to provide, such as "current level of functioning" or "justifies strengths". Just add "current level of performance." It says he is a level 5, how do you know that?

D: When we download the files, that will be in the computer system, so I have that in a separate database.

S: If he's a level a 5, then I know he's not in grade 6.

D: I can tell you this student is in 10th grade/

S: And that's, a level 5 is what, what would level 5 mean on the Florida test?

D: It's an achievement scale out of 5. So 5 would be the highest.

S: Highest grade level you mean?

D: Highest for the grade in which the student took it, so that would be 8th grade.

S: Huh. And you're trying to build the program based, is that just showing that you would want to look at that child? Is that that he is something? Because this does not say where he is functioning compared to an 8th grade test.

D: Very true. So when they do these plans, they look at data and they have to use that information to determine the students strengths. But, what is considered a strength, what is considered data, is determined by the students EP committee. So, a lot of times they don't have access to, like, we have a of 7th graders take the SATs. That does not end up on these plans.

S: So I would say before then I would give it a 0 because as somebody who is trying to come up with the differentiation for that child, that tells me absolutely nothing. Unless that's what you want. This says, "based on the strengths of the student evaluation, included classroom evaluation, student will be able to" and that's just not true.

D: Okay.

S: Do I need, do you want me to elaborate a little bit more? Because it doesn't tell you at all what skills that student has in math. That kid is in 10th grade, and this is an 8th grade test? And then just look at 8th grade data? You know how standardized tests work.

D: Yep

S: They don't look at – connection to the northwest. Those other tests tell you where they're functioning. They're 5 on an 8th grade test? Tells you nothing! It tells you, you know compared to other 8th graders he's doing high level work on 8th grade material.

D: Okay so then-

S: That's not, that's not even valid. To me this would be a red flag.

D: So then on the instrument do you think this would be a question is valid, uhm-

S: I think, well this is the thing. I think if you want some proof to say that we ought to look at math because when he was in 8th grade, you know, he couldn't score any higher. So it means we ought to look at where he is from today. So either we say what indicators from the

past say that math is a strength and not tell you, you cannot say, “at what level is he functioning?”

D: Okay

S: So you need to make up your mind what, I think you need, there’s use for both questions. It depends on at what level you’re at and what you get out of this one specifically. So if I look at, uhhh. Hey, you wouldn’t know how to differentiate in math if you didn’t know what you already knew. Where does that happen?

D: Uhm.

S: Here’s the thing though, read the next page. “By the end of 12th grade.” And now he’s in 10th grade, that’s okay. That’s a four year plan and that’s fine.

D: Not to color your analysis too much but the plan you’re looking at, the educational plan, I consider to be a very weak plan, but it’s randomly drawn from, from a sample.

S: Right, so I’m saying that if I were auditing this to make sure that the- your- “Hey, you’re doing a good job with differentiating,” I would say you need more specific things than they shared about where that child is functioning in that moment.

D: Okay, I agree. Do you think that Part A Indicator 4 and 5 helps, would help, an auditor realize that this is an issue that needs to be addressed, or should the wording of those be altered?

S: Uhm. \*Long pause and rereading\* What I don’t like is “levels of performance” because it really- That’s the phrase that I think needs to even be- I don’t know- I guess what I don’t like is that the way you’re measuring performance, is not- I don’t find it useful in planning. It does say that when that child was in 8th grade, he did great on 8th grade. So I don’t know. I would change it to. Something. I’m looking at 4 and 5 if seeing that- the strength is explicitly

noted, but the proof for that strength is weak. I don't know how you alter that question. I don't think it's a matter of the question, I think it's a matter with what they answered.

D: Okay

S: I think the question is okay. But if it's that question, then I don't think- and here's the other thing is a score from two years previously, I don't- how are you going to rectify that? Because you aren't in change of what they put there. So you need current- does that plan, does the EP, indicate current levels of function? And it doesn't.

D: Right, right. So it may also help if you look at the other file- at [EP] 1299 – um, has a lot more information there. You don't have to print it out, but if you just want to see some of the variance that comes through in the plans.

S: Here's the problem dear, if we're only wanting this to be a useful instrument if it accepts Y variance and what teachers think constitutes levels of functioning-

D: Right

S: You're going to get plans based on the knowledge of the person completing the plan, right?

D: Yes, very true.

S: So if there's a way to make this a little bit more specific for what you really want that teacher to fill in by either providing an exemplar saying "this is the right information" or not- I think you've devised a nice plan. Is this- are you just evaluating these, or- I guess I just don't understand what you're trying to do with the instrument.

D: So the instrument is used to evaluate the plans and it gives them a score of 1 to 5, a quality score.

S: Oh, oh! So then it's good because it doesn't. I would just make that question a little more specific – “current level of functioning” or “justifies strength area” so that I know what I'm – you're- looking for.

D: Okay

S: So I would just say the “levels of performance identifies the area of strength.” So. That particular one that we looked at, to me, didn't do that. So maybe I would just add “current levels of performance” – I don't, I don't know. Make it a little more specific so that with this particular plan that you're showing me, we can give it a zero or a one.

D: Okay, that's very valuable.

S: I think “the plan identifies the interest of the student.”

D: Very similar one, it's interest versus strength.

S: Okay, I'm just looking to see if there's anywhere that would indicated this. \*long pause\* Ah, zero.

D: Okay.

S: I can tell you this, he likes math. My son scored an 800 on math and he hates math. And he was put in an accelerated program in math an he would always be so disinterested because that wasn't an interest area. And then at the end of college on his math scores that he majored in, you see, he majored in marketing and went to a creative field. So this is not, so in this particular, there's not even a place on the EP for interest, so it'd be a zero.

D: Uhm, A6?

S: I mean, uhm, well what was this? Interest 5, yeah, 5, sorry.

D: Uhm yeah. I- yeah. I'm asking if you want to go on to A6?



S: I am. “Educational plan presents levels of performance segment- identifies area of need beyond the general curriculum for the gifted student.” I’m gonna say 1 because I just think that the way it’s worded, they don’t really know there is evidence for that. I mean, the response you’re gonna get is not a complete enough response, so I would say a one. I mean, it’s there, if the teacher knows how to fill it out correctly.

D: Okay.

S: I’m not- Am I? Again, I’m not trying to be naïve about this. I’m rating how I would use this instance to evaluate this plan. Am I right?

D: Yes and no? So the purpose of this activity – the cognitive lab - is to get your opinions about the items, so like A5, A6

S: I think that is good. So if I’m rating the item, then the item [A6] is good. But it would get a bad rating on A5, that particular plan. So yes, the item is good.

D: Yeah, so if this plan comes out and gets all zeroes, that’s fine. This tool should be able to-

S: Yea, no, then I would say five and six are fine! I don’t want to confuse that issue with whether or not the plan has it.

D: Yes, no, I agree, this is a very bad plan.

S: Yea, no, where are- ugh. I think this is a good item. So I’d give it a two. How is item four different from \*extended whispering\*

S: You know what’s hard for me, do you think you can put educational plan’s – apostrophe “s”? So your plans’. Because the education plan – the education plan presents, or present levels of performance? I’m not sure, the verb is funny. So is it the educational plan’s present levels of performance, or does the plan present something?

D: Oh, uhm, so the section that you're in is actually the "Present Levels of Performance" segment.

S: Oh it's hard to read because I don't know the verbs and adjectives. You should say "present levels of performance section", you see what I mean?

D: I do see what you mean.

S: Yeah otherwise I'm not sure if it's a verb or an adjective \*laughs\*. Now, you mean, I think, the educational plan present level of performance section, so you need an apostrophe s.

D: Would it be easier to read with an apostrophe s or if it was as a proper noun, capitalized? As in Present Levels of Performance? Present Levels?

S: I don't know, I think the "present level of performance segment on the educational plan."

D: Okay, okay.

S: But that educational plan, p-r-e-s-e-n-t after it just doesn't work.

D: Yup, okay.

S: \*whisper reading\* Where is the strength and interest section? Where is it on the plan? I don't even see it on here?

D: So there is a mandate from the state of Florida when you complete these that the plan has to show the student strengths and interests, but it's not a specific section.

S: Right, there's no section on this EP that indicates it.

D: Right, so it's supposed to be woven in as a narrative in that present levels of performance segment, but I want to restate that there is a very bad plan.

S: Yea, I know. The strengths and interests section of the present levels of performance-numerical data.

D: Oh, I see what you're saying. So I should be able to update that question now.

S: Does it indicate? Yea, it does. Okay, I guess it's confusing for me because- and you're talking again about a segment that I'm supposed to look for on the plan- so you're saying there, "is it true that I'm looking for a strengths and interests section?"

D: So if you look at the third part of the Present Levels of Performance on the plan, it says, "based on the strengths and interests of the student?"

S: Oh right, okay, I see what you're say. Okay. \*Reading\*

S: Why- okay, why would I have a numerical data if I'm not, okay, I guess you can have numerical data if you're talking about quantifying a strength, but you don't want numerical data if you're quantifying an interest.

D: Sure, yes.

S: It's there.

D: Okay.

S: Or maybe you need an item saying, "The interests of the student is clearly described."

D: Okay.

S: Maybe you need to- why would you want to quantify- unless you give a scale of interest, I don't- how would you want to see quantifying interest of the child? Looking at something like, if the student doing something like "My Way"? How would that be quantified?

D: Okay.

S: So um \*Reading\*. Let me look at 5. \*Reading\* Right, I guess I wouldn't put interest into number seven. Otherwise it's fine. Now for Part B.

S: \*Reads B1\* Oh, that's a good question. That's very, very precise. I know what I'm looking for. Alright, and then first goal. How many goals might there be?

D: There has to be at least two, by state requirement.

S: Oh good, okay.

D: So uhm, in part B, item B8 through B15 measure the first goal, and then B16 through B23 are the exact same items for a second goal.

S: I like this section a lot. "First goal is designed to be" \*reading\* "Designed to have measurable qualities" Okay, that's good. Uhm, I would add- question, and I don't know how this comes up, does it ever say in uhm, it says here, "needs beyond the general curriculum." Is that- here on number 15- does it ever give you an opportunity to illuminate the regular curriculum? It literally doesn't here. If the kid is going to do more work, or different work, in your question.

D: Right, uhm, so on the first page of the plan in the Present Levels of Performance section, the 4th question is "the student's giftedness results in the needs for special program and/or needs beyond the general curriculum in the following way" and the logic beyond this question, I guess, is that many of these plans say "the student needs acceleration" or "need differentiation" or "needs more challenging work" and then in the classroom- or the goals will say something like "the student is gonna get 80% on vocabulary tests" which does not-

S: And or advanced vocabulary, for instance

D: Right. Or less than that.

S: You wanna emphasize whether or not that is lieu of- or that the goal clearly is- do you want, do you want people to make sure that they're not- that in their EP its not- that it's more rather than different. Is that important to you as an evaluator of the plan?

D: Uh- yes. Yes, it is.

S: Then I would \*pause\* Let me see, so lets look at 14 and see if it says that. “The goal meets the student needs beyond the general curriculum as established in the Present Levels of Performance.” That implies it there in number fourteen. The goal needs \*reading\*. “With an eye toward different assignments rather than additional assignments”? I don’t know if you want to put something like that in there. Or you might want to say that “the goal infers that students will be excused from the regular curriculum.” I don’t know if its important enough to make that- I am just so worried that we’re giving kids more and not different.

D: Yes. Yea, me too.

S: So for evaluating this, you know, uhm I think that if you have an item that talks about that and teachers were aware of how the EPs were gonna be evaluated, they might think a harder about what that means because a lot of teachers still think gifted is more and not different. So I don’t know if you could have an item that kind of suggests, or hints at, “is there information in the goal that infers that students will not be given work they already know.”

D: Okay.

S: “Short term benchmarks” Okay. Okay, so then the second set of questions is the same, so it would be my same-

D: Uhm, yes. All the way down until B24 would be a little bit different.

S: “A statement about how student progress will be recorded and given to parents is included.” Oh that’s good. Yea, that’s a good one. Alright, so yea, my only suggestion that who sections would be the thing that infers more work versus different.

D: Okay

S: “Determine the following parts of the exceptional education services.” Specific services... good. “The provided services are acceptable for the grade level of the student.”

\*long pause\*

D: So for that the State of Florida has provided specific, uh, they’re very broad, so for example, you can’t have an elementary student consult, on a consultation service, about their giftedness. That’s for high school students. Uh-

S: Oh, “type of service delivery is”, okay, that makes sense.

D: We will see that. I had a kindergartner who was on, uhm, a ten-minute-a-month-consultation about their giftedness.

S: \*yelling\* THAT WAS IT?

D: Yea \*laughs\*It was-

S: How- huh- and- and that was to meet with the teacher? The parent? Or the teacher to meet with the kid?

D: Have, have, have a teacher the kid doesn’t know, meet with the- these teachers were telling me, “No, it’s fine, she’ll talk about what she needs.” And it’s like, she’s five. She doesn’t know what she needs.

S: Oh, how stupid. Okay. This is a great way for you to look carefully at what they’re doing, so I like that question. 26, that’s- that’s a good question. Because it sounds like people thought hard about what the service delivery should be for certain aged kids.

D: Yea. Yes, I believe Gillian was on that. Carol-Ann Tomlinson was on that.

S: Oh good.

D: A writer on that document, so-

S: Good. “There is a statement of what and how specially designed instruction is to be provided to the student.” Good. Good. Okay.

S: “All parts of the educational plan are strengths-focused.” Good.

S: “The EP is currently active and has not expired.”

S: “The timeline of the EP was written for a three year duration, of a four year duration for high school students”.

D: That’s kinda a state requirement.

S: Yea, yep, yea. “Thorough notes were taken throughout the duration of the meeting of the Educational Plan Committee.” You’re supposed to be able to see the notes?

D: Yea, you can see them at the end of the meeting, down on the bottom of page two. \*Laughs\* yea, they’re real bad. Sometimes these will be a full page. Uhm, but not in this meeting.

S: Oh, I see yeah. \*reading\*. Huh. Good, alright. So there were just a couple areas I would hesitate about in terms of making sure that this would be able to tell you if this was a good plan or not and one was being a little more specific about interests, I mean, where- you know, what- how- you might wanna say, “is there a- does the plan show how the child’s interests were-,” listing the interests and how they were determined.

D: Okay.

S: And another might be does the plan indicate was this work supplemental to the current work, or different from the current work. Or something. And, and present reasons why. So those are the two areas I think you might want to be a little more precise about. And current levels of functioning, or is it current level of functioning? But yes, the question is great.

D: Okay.

S: Possibly, does that help?

D: Yea, no, yea! It was fantastically helpful. It was good to hear, I mean you're a professional in the field who knows a ton about gifted and if this tool is going to be used by people who have considerably less experience, uhm, I think it's valuable to hear the areas where you, uh, stumbled a little bit, and the areas where you were like, "no, that's is really strong."

S: And don't forget to change that educational plan "s".

D: Right, yes, the apostrophe "s".

S: Yea.

D: Yep.

S: And you should also capitalize that section, but um, it's hard to understand what you're getting at because of the grammar.

D: Right, okay. That's good to know.

S: It sounds, it looks good!

D: Okay, thank you for your time!

S: Evaluate plans, what do you think you're gonna find?

D: Uh, I think I'm gonna find that there's a really, really wide spread of quality in these plans. The one that I sent you is bad, but its not even the worst. Uhm. But there are some that are really, really great.

S: It becomes, right. It just becomes a paper. You know we think that they use it, they just throw anything down. They throw it in, right?

D: Yes, Gillian stressed that a lot, that I need to discuss some research on that in my dissertation, uh, cause particularly in IEP research there is some very strong data that shows teacher opinions about the documents becomes compliance-based.



S: And it's not helpful.

D: Right

S: In other words you're gonna want some more specific about how they know the current- specific data from how they know the current levels of performance and specific- how they know the interests and how they were integrated into the plan.

D: So the next step is to identify all of the teachers who wrote these plans and give them Francoys Gagne's Opinions of Gifted inventory.

S: Uh-huh.

D: We'll see, I'm using Del's [Siegle] breakdown of that tool and I going to see if I can find any relationship between teacher opinions about gifted and the quality of these documents.

S: Oh that's fascinating.

D: Thank you.

S: What a fantastic study, very interesting.

D: Thank you. So, I hope to be done, next, next year \*nervous laughter\*.

S: Alright, well, let me know if you need any other opinions. I have a whole lot of them.

D: Thank you, you've been a fantastic help!

APPENDIX E: APPROVAL FOR RESEARCH STUDY FROM UNIVERSITY OF CENTRAL  
FLORIDA INSTITUTIONAL REVIEW BOARD



UNIVERSITY OF CENTRAL FLORIDA

**Institutional Review Board**

FWA00000351  
IRB00001138  
Office of Research  
12201 Research Parkway  
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

September 24, 2019

Dear David Maddock:

On 9/24/2019, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study, Category 2
Title:	AN EXAMINATION OF THE QUALITY AND DEVELOPMENT OF EDUCATIONAL PLANS FOR GIFTED STUDENTS
Investigator:	David Maddock
IRB ID:	STUDY00000860
Funding:	None
Grant ID:	None

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or [irb@ucf.edu](mailto:irb@ucf.edu). Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Racine Jacques, Ph.D.  
Designated Reviewer

Figure 35. Approval for Research Study from UCF Institutional Review Board

APPENDIX F: DEIDENTIFIED PERMISSION FROM CENTRAL FLORIDA SCHOOL  
DISTRICT TO CONDUCT RESEARCH

August 30, 2019

David Maddock  
2863 Grand Bend Ct.  
Orlando, FL 32837

Dear Mr. Maddock:

This letter is to inform you that we have received your request to conduct research in our School District. Based on the description of the research you intend to conduct, I am pleased to inform you that you may proceed with your work as you have outlined. Please be advised that this approval is based on the understanding that a school's participation is completely voluntary and left to the discretion of each building administrator. Please also be advised that the district office will not be able to assist you with any aspect of your research (e.g. sending emails, obtaining data, locating students, providing addresses, etc.).

Finally, be reminded that all information obtained for the purpose of your research must be dealt with in the strictest of confidentiality. At no time is it acceptable to release any student or staff identifiable information. Upon completion of your research, please provide our office with a copy of your results.

I wish you the best of luck in your future endeavors. If I can be further assistance, please do not hesitate to contact me.

*Figure 36.* Deidentified Approval for Research Study from Central Florida School District

APPENDIX G: CONTACT MESSAGES TO PARTICIPANTS FOR TEACHER SAMPLE

Hello,

I am conducting research on the quality of educational plans and how they relate to teacher opinions. Having quality goals has been shown to have an impact on student growth and are a legal requirement as a part of educational plans for gifted students. However, limited research has been done to examine the quality of the educational plans that are being produced and the attributes that lead the creation of quality plans. The purpose of this research study is to examine the relationship between the quality of educational plans and teacher opinions about gifted education.

You have been identified by this research as a teacher who attended an EP meeting in your school district. I would like to ask you to complete a brief survey about gifted students and giftedness in order to further this research. I would sincerely appreciate your participation as it may lead to improvement in future research on educational plans. Completing these questions will require approximately 10 minutes. Participation in this study is completely voluntary and you are free to withdraw at any time.

You must be 18 or older to participate in this study. The link to complete the survey is: [http://ucf.qualtrics.com/jfe/form/SV\\_eaZY4w6oZGJY9Eh](http://ucf.qualtrics.com/jfe/form/SV_eaZY4w6oZGJY9Eh)

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the researcher, David Maddock (drmaddock@knights.ucf.edu), or the chair of this study, Dr. Daniel Eadens (daniel.eadens@ucf.edu).

If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email [irb@ucf.edu](mailto:irb@ucf.edu).

*Figure 37. Deidentified Contact Message to Participants for Teacher Sample*

APPENDIX H: EXEMPLAR EDUCATIONAL PLANS FOR EACH EPQA LEVEL



*Figure 38. Exemplar Plan at Quality Level One*

**County School District  
Educational Plan (EP) - STUDENT 1458**

**I. Student Information**

Date of Meeting: 5/30/2017	Duration Date: 5/28/2019
Student Name: STUDENT 1458	Previously Amended: N/A
DOB: 12/11/20XX	Student Number: 0000000000
Parent(s): PARENT 1458a PARENT 1458b	School: SAMPLE SCHOOL #42
	Address: REDACTED

**II. Present Levels of Performance**

Special Considerations (e.g. limited English proficiency):

None at this time.

Concerns of the parent for enhancing the education of the student:

None at this time.

Based on the strengths and interests of the student and the results of recent evaluations, including class work and state or district assessments, the student is able to:

FSA 4/19 EOC GEOMETRY LEVEL 3  
FSA 4/16 ELA LEVEL 5  
FSA 5/15 EOC BIOLOGY LEVEL 4

**III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

Goal: Student 1458 will maintain an 85% or higher in math and science  
Assessment Procedures: classes. Interview With, Graded Work Sample, Curriculum Based  
Interviewer: (if applicable): Assessments Gifted resource teacher  
How Progress Reported: Report cards will be sent home every 9 weeks.

Short-term Objectives or Benchmarks:

Student will maintain an 85% or higher in math classes.  
Student will maintain an 85% or higher in science classes.

**IV. Exceptional Education Services**

Specially Designed Instruction	Initiation	Duration	Frequency	Location
Enhanced curriculum in math and science	05/30/2017	05/28/2019	Daily	On campus
Gifted consult	05/30/2017	05/28/2019	1x monthly	On campus

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Related Services	Initiation	Duration	Frequency	Location
There are no Related Services specified for this plan.				

The EP is accessible to each of the student's teachers who are responsible for implementation and each teacher of the student has been informed of the specific responsibilities related to implementing the EP. Rule 6A-6.030191, FAC

**V. Notes**

Meeting was held to transfer student's EP from local district system to PEER. Parent was contacted via phone on 5/23/17 and gave permission for meeting to be held. Dates were updated. Copies will be sent home via mail.

*Figure 39.* Exemplar Plan at Quality Level Two

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**County School District  
Educational Plan (EP) - STUDENT 1816**

**I. Student Information**

Date of Meeting: 6/1/2016	Duration Date: 6/1/2020
Student Name: STUDENT 1816	Previously Amended: N/A
DOB: 9/27/20XX	Student Number: 0000000000
Parent(s): PARENT 1816	School: SAMPLE SCHOOL #1
	Address: REDACTED

**II. Present Levels of Performance**

Special Considerations (e.g. limited English proficiency):

**NA**

Concerns of the parent for enhancing the education of the student:

**Parents are concerned with his grade in Alg.  
parent have talked to him about his grades.**

Based on the strengths and interests of the student and the results of recent evaluations, including class work and state or district assessments, the student is able to:

**Honors Alg D  
Honors Physical Science B**

The student's giftedness results in the need for a special program and/or needs beyond the general curriculum in the following way:

**Student needs to be challenged with a enhanced curriculum to meet his academic needs.**



*Figure 40.* Exemplar Plan at Quality Level Three

**County School District  
Educational Plan (EP) - STUDENT 1630**

**I. Student Information**

Date of Meeting: 5/22/2017	Duration Date: 5/22/2020
Student Name: STUDENT 1630	Previously Amended: N/A
DOB: 9/13/20XX	Student Number: 0000000000
Parent(s): PARENT 1630a PARENT 1630b	School: SAMPLE SCHOOL #63
	Address: REDACTED

**II. Present Levels of Performance**

Special Considerations (e.g. limited English proficiency):

**Student 1630 has many interest that really drive his learning. Student 1630 could use help with social skills because he struggles interacting with peers and making friends.**

Concerns of the parent for enhancing the education of the student:

**Mother is concerned about his social skills and his handwriting.**

Based on the strengths and interests of the student and the results of recent evaluations, including class work and state or district assessments, the student is able to:

**Student 1630's iReady math scaled score was 478 and went up to 518 by the end of the year. He grew 40 points which is twice the amount expected.**

**Student 1630's iReady reading scaled score grew from a 627 to a 637 in the 2016-2017 school year. He grew by 10 points.**

The student's giftedness results in the need for a special program and/or needs beyond the general curriculum in the following way:

**Student 1630 needs differentiated instruction beyond the general curriculum to challenge him.**





**V. Notes**

Meeting was held to review Student 1630's Education Plan before transitioning to middle school. Progress was reviewed. The old education plan was closed out. New goals and objectives were developed. Teacher 1 and Teacher 2 discussed Sample School 46's gifted program. All paperwork was signed and copies provided for the parent including Procedural Safeguards.

*Figure 41.* Exemplar Plan at Quality Level Four

**County School District  
Educational Plan (EP) - STUDENT 1062**

**I. Student Information**

Date of Meeting: 6/6/2016	Duration Date: 6/5/2019
Student Name: STUDENT 1062	Previously Amended: N/A
DOB: 3/10/20XX	Student Number: 0000000000
Parent(s): Parent 1062a Parent 1062b	School: SAMPLE SCHOOL #35
	Address: REDACTED

**II. Present Levels of Performance**

Special Considerations (e.g. limited English proficiency):

N/A

Concerns of the parent for enhancing the education of the student:

Parents would like to see Student 1062 working towards her highest potential. Parents would like to see Student 1062 make one academic year's growth each year.

Based on the strengths and interests of the student and the results of recent evaluations, including class work and state or district assessments, the student is able to:

Student 1062 is an avid reader and utilizes higher order thinking skills to solve problems. She is capable of working above grade level in mathematics and reading, as shown on recent STAR scores.  
\*\*March scores\*\* \*\*See new STAR results attached.\*\*

Star Math:

Percentile Ranking 90

Scaled Score 587

Grade Equivalent 3.8

Star Reading:

Percentile Ranking 90

Scaled Score 497

Instructional Reading Level 4.1

The student's giftedness results in the need for a special program and/or needs beyond the general curriculum in the following way:

Student 1062 excels in reading and mathematics. The need exists to accelerate, compact and/or enrich her instructional programs in reading and mathematics.



**V. Notes**

A meeting was held to update Student 1062's EP for the gifted plan. Teacher 1, the general education teacher stated that Student 1062 displays above average academics and enjoys to be challenged. Teacher 1 stated that Student 1062 is prone to giving up before she digs deeper into possible solutions to problems. She would like for Student 1062 to give herself time to reflect on possible solutions to problems. Teacher 2, the gifted teacher stated that Student 1062 is a sweet young lady and is always eager to please. Student 1062's parents attended and shared that they would really like to see Student 1062 make at least one year's growth each year. We will use iReady to measure, or quantify, this growth. Student 1062 will be STAR tested one more time this week. \*Her newest STAR results scores will be attached.\* The draft copy of the education plan was reviewed and agreed upon. The committee discussed the least restrictive environment and agree that Student 1062's current general education classroom with gifted reading and math continue to best meet her needs at this time. Procedural Safeguards and copies of all paperwork were sent home with the parent.

*Figure 42. Exemplar Plan at Quality Level Five*

**County School District  
Educational Plan (EP) - STUDENT 216**

**I. Student Information**

Date of Meeting: 8/31/2018	Duration Date: 5/14/2021
Student Name: STUDENT 216	Previously Amended: N/A
DOB: 9/29/20XX	Student Number: 0000000
Parent(s): Parent 216a Parent 216b	School: SAMPLE SCHOOL #7
	Address: REDACTED

**II. Present Levels of Performance**

Special Considerations (e.g. limited English proficiency):

**No special considerations at this time.**

Concerns of the parent for enhancing the education of the student:

**Parents would like to make sure that Student 216 performs well in his academic classes. He is a little shy at times. He enjoys reading. He is learning programming and coding on his own at home. Science is his favorite subject.**

Based on the strengths and interests of the student and the results of recent evaluations, including class work and state or district assessments, the student is able to:

**Based on the recent psychoeducational evaluation, Student 216 is performing in the very high range with a FSIQ (121) and GAI (127).**

**Psychoeducational evaluation (8/25/15):  
Wechsler Intelligence Scale for Children FSIQ (121) and GAI (127)**

**On the 5th grade FSA ELA Reading test, Student 216 scored a level 5 which is the highest possible score.  
On the 5th grade FSA Math test, Student 216 scored a level 5**

The student's giftedness results in the need for a special program and/or needs beyond the general curriculum in the following way:

**Student 216 would benefit from an enhanced curriculum in reading and math.**



**III. Measurable Annual Goals and Short-Term Objectives or Benchmarks**

**Goal:** Given two or more above grade level reading comprehension tasks, Student 216 will be able to write an informative or persuasive/argumentative response providing details and inferences with 85% accuracy.

**Assessment Procedures:** Teacher Developed Checklist or Chart, Student Work Product, Graded Work Sample, Curriculum Based Assessments

**How Progress Reported:** Progress will be reported through report cards every nine weeks.

Short-term Objectives or Benchmarks:

Student 216 will draw relevant evidence to support a writing prompt from two or more above grade level reading passages without assistance.

Given two or more above grade level reading passages, Student 216 will plan a written response to persuade using evidence from the sources and his own inferences.

**Goal:** By 8th grade graduation, Student 216 will develop strategies to solve non-routine algebraic and geometrical mathematical problems with 85% accuracy in 4 out of 5 instances.

**Assessment Procedures:** Test(s): Teacher and/or Standardized, Curriculum Based Assessments

**How Progress Reported:** Progress will be reportedly quarterly to parents.

Short-term Objectives or Benchmarks:

Student 216 will develop and use strategies to solve algebraic problems with 85% accuracy in a compacted math curriculum.

Student 216 will develop and use strategies to solve geometry problems with 85% accuracy.

**IV. Exceptional Education Services**

<b>Specially Designed Instruction</b>	<b>Initiation</b>	<b>Duration</b>	<b>Frequency</b>	<b>Location</b>
Differentiated Instruction	09/4/2018	05/14/2021	Daily	Classroom

<b>Related Services</b>	<b>Initiation</b>	<b>Duration</b>	<b>Frequency</b>	<b>Location</b>
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There are no Related Services specified for this plan.

The EP is accessible to each of the student's teachers who are responsible for implementation and each teacher of the student has been informed of the specific responsibilities related to implementing the EP. Rule 6A-6.030191, FAC

**V. Notes**

Meeting was held to review Student 216's EP from County Public Schools in Florida and create an updated EP. Members of the committee were introduced. In attendance were: Regular Ed. and Gifted Teacher, Teacher A, Resource Compliance Specialist, Teacher B, and Parent, Parent A and Parent B.

Student 216 has an EP from Sample School #21 in Florida County and received services in the gifted program; however, the plan expired in January of 2018.

Committee reviewed the previous EP and developed an updated EP that is reflective of his current educational needs. Goals were updated and created in the areas of English Language Arts and Math, with gifted services in differentiated instruction daily. Parents inquired about adding a Science goal. Student 216 is placed in an advanced Science class.

Teacher A will contact the Science teacher to review his performance, and determine if a science goal would be appropriate to add to the EP. Parents will be contacted. Notes were read aloud, and all present agreed they are a fair characterization of meeting proceedings. Copies of paperwork, Procedural Safeguards, were provided to the parent.

## APPENDIX I: G-POWER ANALYSIS FOR NEEDED SAMPLE SIZE

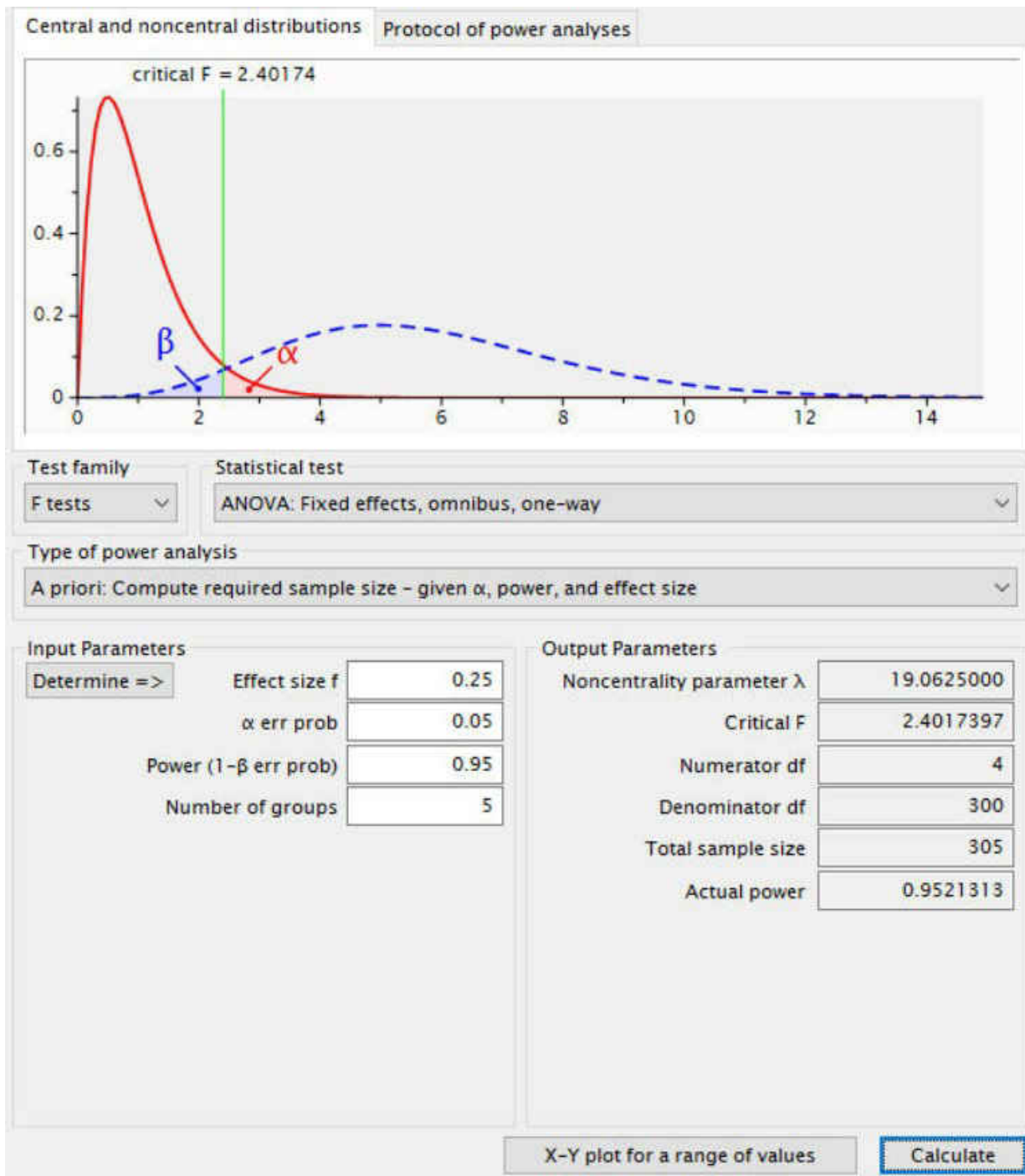


Figure 43. G-Power Analysis for Needed Sample Size for EPQA, Medium Effects

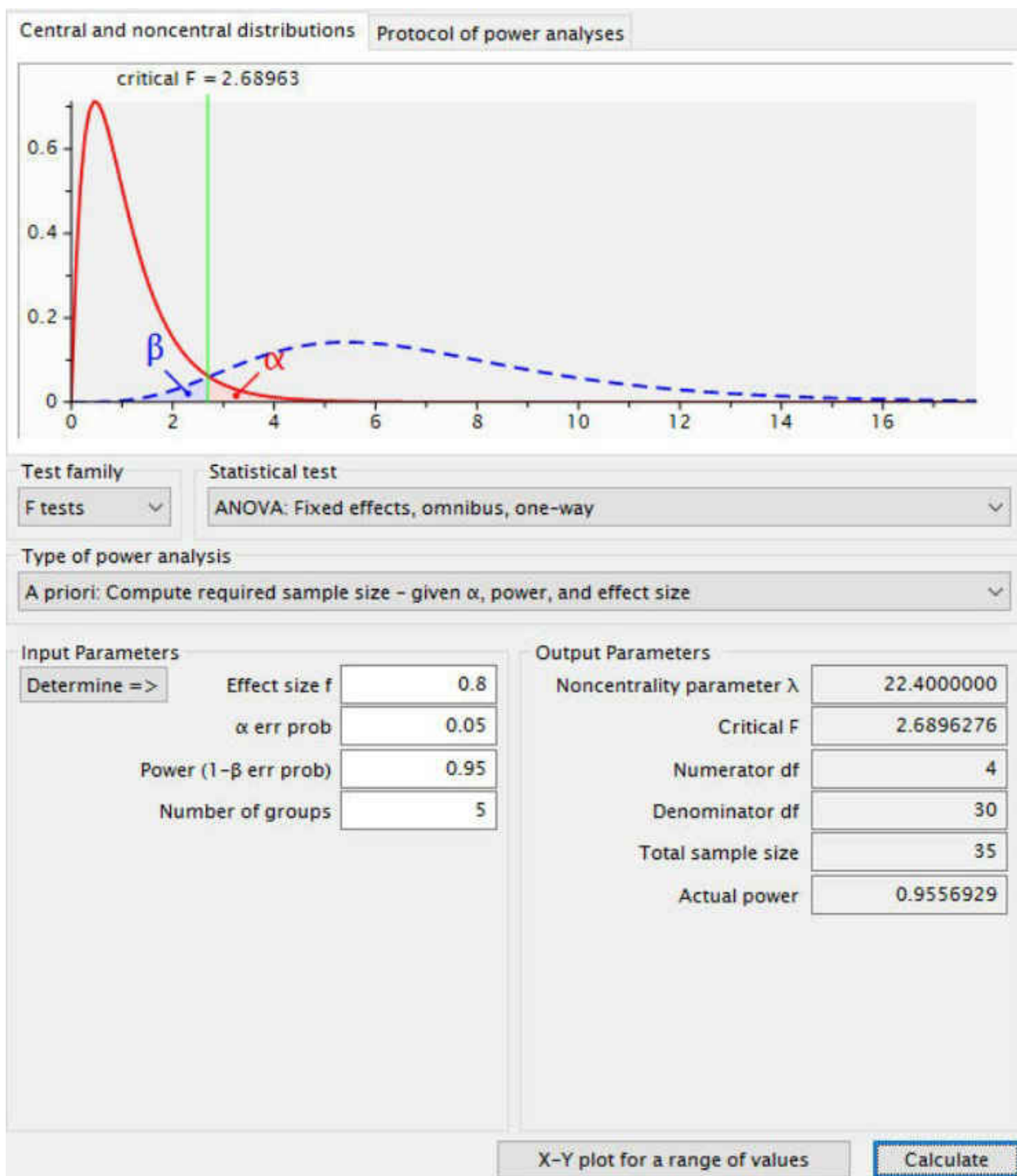


Figure 44. G-Power Analysis for Needed Sample Size for OGE, Large Effects

APPENDIX J: RESPONSES OF TEACHER OPINION MATCHED WITH EP QUALITY  
MEAN BY TEACHER

Table 33

*Descriptive Statistics for Paired Teacher Opinion and EPQA Scores*

Teacher Number	Means		
	Opinion	EPQA Total Score	EPQA Quality Level
Teacher #1	5.45	35.00	3
Teacher #2	6.20	25.56	2
Teacher #3	5.05	28.86	2
Teacher #4	4.85	26.00	2
Teacher #5	5.75	19.00	1
Teacher #6	5.05	37.00	3
Teacher #7	5.65	34.53	3
Teacher #8	5.70	15.00	1
Teacher #9	6.00	26.00	2
Teacher #10	5.80	42.00	4
Teacher #11	5.65	21.00	1
Teacher #12	5.00	36.50	3
Teacher #13	5.85	26.00	2
Teacher #14	5.05	20.50	1
Teacher #15	5.20	28.75	2
Teacher #16	4.90	36.60	3
Teacher #17	5.50	33.00	2
Teacher #18	5.10	39.00	3
Teacher #19	4.95	28.00	2
Teacher #20	5.30	26.33	2
Teacher #21	5.25	30.33	2
Teacher #22	5.10	41.00	4
Teacher #23	4.70	29.00	2
Teacher #24	4.30	18.00	1
Teacher #25	5.45	38.00	3
Teacher #26	4.85	36.33	3
Teacher #27	5.15	33.00	2
Teacher #28	5.15	39.00	3
Teacher #29	5.35	17.00	1
Teacher #30	6.25	29.00	2
Teacher #31	4.55	31.00	2
Teacher #32	5.25	31.25	2
Teacher #33	5.70	41.00	4
Teacher #34	4.00	23.00	1
Teacher #35	6.10	34.67	3
Teacher #36	5.85	32.00	2
Teacher #37	5.45	30.00	2

Teacher Number	Means		
	Opinion	EPQA Total Score	EPQA Quality Level
Teacher #38	4.30	21.00	1
Teacher #39	4.55	51.00	5
Teacher #40	5.65	41.00	4
Teacher #41	5.35	23.00	1
Teacher #42	5.90	30.00	2
Teacher #43	5.60	34.25	3
Teacher #44	4.85	29.50	2
Teacher #45	4.35	27.50	2
Teacher #46	6.00	24.00	2
Teacher #47	5.10	40.00	4
Teacher #48	5.85	28.00	2
Teacher #49	4.15	50.50	5
Teacher #50	4.90	36.00	3

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