Uncovering the Gifts in English Language Learners

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UNCOVERING THE GIFTS IN ENGLISH LANGUAGE LEARNERS

A Doctoral Research Project

Presented to
The Faculty of Morgridge College of Education
University of Denver

In Partial Fulfillment
Of the Requirement for the Degree
Doctor of Education

by
Sheri J. Collier
June 2017
Advisor: Dr. Norma L. Hafenstein
ABSTRACT

This research study addresses the problem of practice of the underrepresentation of English language learners (ELL) in gifted and talented (GT) services. The literature provided several reasons for the underrepresentation of ELL students being identified as gifted. One reason cited in the literature was teachers’ lack of referrals or understanding the characteristics of ELL students who may be gifted (Barkan & Bernal, 1991; de Wet & Gubbins, 2011; Esquierdo & Arreguín-Anderson, 2012; Ford & Grantham, 2003; Harris, Rapp, Martínez, & Plucker, 2007). The literature also stated assessment play a major role in identification practices (Anguiano, 2003; Barkan & Bernal, 1991; Ford & Grantham, 2003; Harris et al., 2007). Another reason stated was that parents or families might be unaware of the referral process for gifted identification (Harris et al., 2007).

Preschool teachers were the focus of the intervention for this research project, which was performed through a professional development day and professional learning community (PLC) meetings. Data were collected through electronic surveys before the intervention and after all interventions were completed. Exit tickets were collected and meeting notes from the three PLCs were recorded and listened to for overarching themes. The research data were analyzed utilizing a mixed-method approach and conclusions were drawn in regards to this population’s underidentification in the GT community. It was found that professional development and PLCs were effective in increasing the
knowledge of the characteristics of ELL students who may be gifted. However, an increase in referrals was not observed during this research project.
ACKNOWLEDGMENTS

There are so many people that made this journey possible that it would be impossible to name everyone. My husband, Andy, has always supported me through all of my adventures. When I didn’t feel I could go any further, he was there. When I was flying high on accomplishments, he was there. The support and strength from him has made me the woman I am today. You are my everything!

To my sons, Robert and Connor: You both provided me with the push to keep going. I never want you to doubt yourself or listen to anyone that doubts you—use their doubt as your fire and prove the world wrong! I love you both more than you will ever know and every time I wanted to quit I knew you each deserved a better role model. Remember, success is not how many times you fall, but how many times you get up!

To Catherine, Dr. Collier: Thank you for being my role model. You have inspired me to be the best I can be.

To Dr. Hafenstein and my cohort: Thank you for the push and the pep talks at all hours of the night. This was no easy journey and I am glad we didn’t do it alone!

To my friends: Your support and understanding truly made this possible. Thank you for believing in me and supporting me through this. May we continue to collect for fun and not motivation!
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CHAPTER 1: INTRODUCTION

The language you speak does not determine your intelligence (Anguiano, 2003). However, students from different nationalities and language backgrounds are less likely to be identified as gifted and talented (GT) students (Harris, Plucker, Rapp, & Martínez, 2009). This chapter will give a brief overview of the research to understand and address this problem of practice in education.

Problem of Practice

The underrepresentation of minorities has been a discussion in gifted education for some time now (Anguiano, 2003). There is a concern around the identification of our bilingual and multilingual students into gifted education (Barkan & Bernal, 1991; Esquierdo & Arreguin-Anderson, 2012; Harris, Rapp, Martínez, & Plucker, 2007). “While the number and relative proportion of English language learners (ELL) in public school systems is rapidly increasing, ELL students are often overlooked for gifted programs, and for this reason are grossly underrepresented in gifted and talented education programs” (Harris et al., 2007, p. 26).

On a national level, the Colorado Department of Education (2015) reported that in 2014, there were 4,472,563 English learners in the United States. This number comprises 9% of all students, pre-kindergarten through 12th grade, nationwide. The Office of English Language Acquisition (2016) identified eight states with 10% or more of the
population as English learners: Hawaii, Alaska, Oregon, California, Nevada, Colorado, New Mexico, and Texas.

On a state level, according to the National Center for Education Statistics (2013), the state of Colorado identified 86,118 students who participated in programs for ELL in the school year 2002–2003. Ten years later in 2012, 101,262 students participated in these programs (National Center for Education Statistics [NCES], 2013). This number does not take into account the students who speak another language and who are not in a program, or those who have received a fluent ranking according to the state test. This was an increase of 15,144 students in ten years (NCES, 2013).

The district researched had a population of 17,115 at the time of research (CDE, 2016). The population included 2,169 English language learners that were identified as non-English or limited English proficient (CDE, 2015). The district has recorded over 40 languages spoken within this population (CDE, 2015).

From a comparison of the percentages of ELL students identified as gifted in the state of Colorado, in the Denver metropolitan area, with the ELL percentage in the corresponding districts, no district is close to having an equitable representation (Colorado Department of Education [CDE], 2015). For example, in 2015, two districts from the metropolitan area are reviewed (CDE, 2015). Adams 12 School District (Northglenn) had 19% ELL population, and 3.8% of the identified GT students were ELL. Adams 14 (Commerce City) had 43% ELL population, and 14% of the ELL students were identified as GT (CDE, 2015). These two districts demonstrate the discrepancy and provide evidence for the claim from Harris, Rapp, Martínez, and Plucker
that the number of ELL is increasing and not being considered for GT programming.

Several causes were found in the literature for this problem of practice. Barkan and Bernal (1991) stated that a major reason was the dominant culture relying on standardized tests for entry into gifted programs. Anguiano (2003) wrote that the assessments were culturally inappropriate. Ford and Grantham (2003) and Harris et al. (2007) stated that teachers are the major reason for underidentification. Esquierdo and Arreguín-Anderson (2012) stated that giftedness in students manifests differently and therefore teachers do not know what to look for to refer for GT programming. Anguiano (2003) stated that parents are unfamiliar with the services and processes in schools.

Students who are ELL are less likely to be identified as GT due to lack of teacher understanding and/or teacher referrals (Barkan & Bernal, 1991; Esquierdo & Arreguín-Anderson, 2012; Ford & Grantham, 2003; Harris et al., 2007; Harris et al., 2009). Teachers can be viewed as the gatekeepers to identification for GT programming in public schools (Ford & Grantham, 2003). On the frontline of the classroom, teachers are seeing the characteristics of each student and are less likely to refer minority students to gifted programs (Ford & Grantham, 2003). Without the understanding of the characteristics of gifted ELL students, these students can be missed (Esquierdo & Arreguín-Anderson, 2012). Teachers need to understand the characteristics of ELL students and language acquisition, so they can learn how to program for these students and uncover the talents that are masked by language and/or culture barriers (Anguiano, 2003).
Second language acquisition is complex and time consuming (Anguiano, 2003). There are several aspects to learning a language, yet teachers tend to notice the vocabulary first and there is a difference between social and academic language that may not be understood by teachers (Lewis, Rivera, & Roby, 2012). The U.S. Department of Education through the Office of Bilingual Education and Language Minority Affairs wrote a report called Project Galaxies of Thinking and Creative Heights of Achievements (GOTCHA) in 1998. That report (1998) stated that “students in different phases of English language acquisition have inherently different educational needs; therefore, knowing a child’s English proficiency level is vital in deciding on their placement in a gifted/talented program (p. 20).

The training of the teachers was also researched to work toward supporting the need for teachers to learn about ELL students and their possible gifted characteristics. Professional development and professional learning communities (PLC) were researched as a possible solution to the concern of teachers being a reason for underidentification (Esquierdo & Arreguín-Anderson, 2012; Ford & Grantham, 2003; Harris et al., 2007). Dooner (2008) stated that “many educators argue that professional learning communities offer an important and distinct form of professional development because they are situated between the educational policies of school districts and the realities of schools and practicing teachers” (p. 564). Vescio (2008) stated, “At its core, the concept of a Professional Learning Community rests in the premise of improving student learning by improving teaching practice” (p. 82).

The goal for this action research project was to investigate teachers’ knowledge and understanding of GT ELL students. The next step, after investigation, was to increase
the knowledge and understanding of the characteristics of an ELL student who may be
gifted to the district preschool staff. Preschool in the school district is reserved for
students that qualify through Child Find (special education) or the Colorado Preschool
Program (CPP). This means that the students are qualified for special education, speak
another language, or have a different at-risk factor as determined by the state of Colorado
(CDE, 2017).

The overarching concept of this study was in regards to change in staff members.
This change included knowledge and referrals of ELL preschool students for gifted
identification. The process of change included the four stages of change as identified by
Michael Fullan (1994). The stages are: initiation, implementation, continuation, and
outcome (Fullan, 2007). This research project initiated change through preschool,
provided a professional development to implement the change, continued the learning
through professional learning communities and analyzed the outcomes.

**Local Context Problem of Practice**

This study was a combined effort to manage several aspects of the school district
that came together as an identified challenge around the same time of the proposal. As the
researcher began discussions with the school district, several components were occurring
at the same time. The first component was that data for the effectiveness of preschool was
being reported as poor by the department of education. The second component was
during this time of discussion, the board of directors had just approved a new school
within a school program for GT learners, but a discussion began about how to recruit
diversity and students below second grade. The recruiting of students younger than
second grade seemed difficult. Typically students are not identified until they finish
second grade, when the universal screening assessment is given. Finally, the third component was the information that the district had a very low rate of ELL students making progress in school. While some growth was being seen on ACCESS testing, the dropout rate of the ELL students continued to increase.

The community partners were invested in seeing and assisting change in the district. This research project had the support and partnership of several people. The Instructional Specialist for ELL agreed to assist with the data and translations, and to be a critical thinking partner through the effort. The Instructional Specialist for Early Childhood agreed to partner for professional development, as well as to support the PLCs that were formed. The Teacher on Special Assignment for Gifted and Talented Identification and Programming agreed to assist in maintaining sustainability of this focus after the research study. The signed agreements for the three community partners are located in Appendix A.

**Purpose of the Study**

The purpose of this study was to determine the impact of professional development on referrals of ELL students for GT identification by preschool staff.

**Rationale for the Study**

Currently, many teachers are monolingual and do not understand the process of language acquisition (Esquierdo & Arreguín-Anderson, 2012). This lack of understanding of the language acquisition process coupled with the lack of understanding of the student adds complexity to the identification process of GT ELL students (Esquierdo & Arreguín-Anderson, 2012). “As the Hispanic population of the United States continues to dramatically increase, education professionals repeatedly face the
challenge of how best to provide services for those whose primary language is Spanish” (Brice & Brice, 2004, p. 8).

The rationale of this study was to look deeper into role of teachers in the lower identification of ELL students into gifted programming. The problem was clearly stated by Harris, Plucker, Rapp, and Martínez (2009) who wrote, “While the number and relative proportion of English Language Learners (ELL) in public school systems is rapidly increasing, ELL students are often overlooked for gifted programs, and for this reason are grossly underrepresented in gifted and talented education programs” (p. 26).

**Research Questions**

The following research questions guided this research:

1. What are preschool staff members’ understandings of the characteristics of ELL identified as GT?

2. Are PLCs effective in increasing preschool staff members’ understanding of the characteristics of gifted ELL students?

3. Does a change in staff members’ understanding lead to an increase in ELL students being referred for identification as GT?

These questions were researched to understand the complexity of the topic. A literature review (see Chapter 2) provided background knowledge for research on ELL gifted students. This review also furthered understanding about language acquisition and the impact it has on identification, and provided a framework for the professional development so that the lessons were intertwined with the characteristics and needs of ELL students. This review also included the topic of PLCs and the best practices of
changing staffs’ behavior. Procedures to help educate and change the behavior and practices of the preschool staff members could be drawn from this study.

**Methodology and Data Analysis**

Throughout this research project, the term *staff* was used to represent all members of the preschool team having direct work with students. This included the licensed teachers, qualified group leaders, and one-on-one paraprofessionals. There were 45 staff members invited to attend the training.

Data were gathered through a volunteer opportunity to complete a presurvey, to participate in a professional development day in August prior to school starting, through three subsequent PLC meetings, and a postsurvey. The preschool staff was represented by 45 members: a combination of teachers, group leaders, and paraprofessionals. All members were invited to participate in all parts of the intervention.

Baseline data from staff members was gathered via an electronic survey. The introduction letter and survey are available in Appendices B and C. This data provided the information of the starting point in the knowledge of ELL students who may be gifted according to the entire staff. It provided the demographic information for each participant in the survey as well as the quantitative data for numbers of referred students, self-perception on the knowledge of GT ELL characteristics, and qualitative data on the characteristics.

Staff members voluntarily participated in a 4-hour professional development. The goal of this professional development was to provide information on gifted characteristics and the needs of the ELL learner who may be gifted. The characteristics reviewed in the professional development helped to identify gifted characteristics in the ELL students for
the preschool staff. Exit tickets, which included a few questions, were filled out to collect data on learning from the professional development and future needs. The exit ticket from the professional development is available in Appendix D. All staff members were offered the opportunity to further their learning on ELL gifted characteristics and needs through three PLCs.

Staff members who took part in the PLCs met once a month for 3 months to continue to develop their understanding of gifted ELL students. The material presented through the facilitated professional opportunity was developed around the characteristics and needs of the gifted ELL learner. Each PLC meeting had its own exit ticket. These are available in Appendix E.

A postsurvey was also sent via an Internet link in order to measure the growth of the staff members. The data were compared to the survey before the professional development intervention occurred. The intervention provided information to determine if the model provided the systematic change needed to change behavior and better the education and understanding of the population at risk. The postsurvey is available in Appendix F.

**Conclusion**

The purpose and rationale for this study was to change the staff’s understandings and behaviors in a way that the staff could start to work on a strength-based model and to understand second language learners who may be gifted. By understanding second language learners and their gifted characteristics, the district can start to identify more students at an early age for GT services. This will allow for the staff to begin to uncover the gifts of ELL students at an early age.
CHAPTER 2: LITERATURE REVIEW

This chapter reviews the literature about gifted education, second language acquisition, gifted characteristics, and identifying gifted ELL learners. It will also identify the gap in the literature.

Purpose of the Study

The purpose of this mixed-methods research study was to determine the impact of professional development on referrals of ELL students for GT identification by preschool staff in the 2016–2017 school year.

Research Questions

The following research questions guided this research:

1. What are preschool staff members’ understandings of the characteristics of ELL identified as GT?
2. Are PLCs effective in increasing preschool staff members’ understanding of the characteristics of gifted ELL students?
3. Does a change in staff members’ understanding lead to an increase in ELL students being referred for identification as GT?

Conceptual and Theoretical Framework

The overarching concept of this study was change. Fullan stated that educators cannot change alone with current expectations and pressure put upon them (1994).
Michael Fullan’s book, Change Forces (1994) addressed eight lessons necessary for change in education to occur. The eight lessons, according to Fullan (1994) were:

1. You can't mandate what matters (The more complex the change the less you can force it).
2. Change is a journey not a blueprint (Change is non-linear, loaded with uncertainty and excitement and sometimes perverse).
3. Problems are our friends (problems are inevitable and you can’t learn without them).
4. Vision and strategic planning come later (premature visions and pinning blind)
5. Individualism and collectivism must have equal power (there are no one-sided solutions to isolation and groupthink).
6. Neither centralization nor decentralization works (both top-down and bottom-up strategies are necessary).
7. Connection with the wider environment is critical for success (the best organizations learn externally as well as internally).
8. Every person is a change agent (change is too important to leave to the experts, personal mind set and mastery is the ultimate protection). (p.32-50)

These eight lessons were further built upon in 1999 with a second book that addressed the complexity of the changing century and focused further on moral purpose (Caldwell, 2000). As Fullan progressed through his career his work became more in depth and focused further on collaboration and capacity building in educators, and then further toward leadership and change (Caldwell, 2000).

Fullan (1994, 2001) wrote that every person is a change agent. He wrote, “the individual educator is a critical starting point because the leverage for change can be great through the efforts of individuals” (Fullan, 1994, p. 23). A focus on the staff members from this conceptual lens led to the focus of learning through theory.

This research project was rooted in learning through constructivism, and Vygotsky’s zone of proximal development was used, in partnership, to enhance the study
design. The theoretical framework serves as a map for this research project since its purpose revolves around learning and professional development.

Constructivism is a learning theory that focuses on the way knowledge is acquired (University of Sydney, 2017). Constructivism gives regard to learning from experiences and being constantly active (University of Sydney, 2017). There are four main contributors to this learning theory: Lev Vygotsky, Jean Piaget, John Dewey, and Jerome Bruner (Learning Theories, 2011). Learning in constructivist theory has three overarching components (Armstrong, 2015). The first component is cognitive ability as prescribed by previous experiences, referred to as the endogenous domain (Armstrong, 2015). This is the information that a person already has about the subject matter from outside experiences; it is a person’s existing knowledge on the topic, which is ever-evolving (Armstrong, 2015). This may be any class or article that a teacher has previously read on the topic that adds to this domain. This can sometimes be referred to as background knowledge from other educational opportunities (Armstrong, 2015).

The second component is related to the environment that has an impact on the learner, and is called the exogenous domain (Armstrong, 2015). This domain pertains to the learners’ environment and exposure about the topic they will be learning (Armstrong, 2015). This may be related to the school district in which a teacher is employed, to a school culture and environment of which a teacher is part, or to an outside/social environment.

The third component is the dialectical one, the interaction between the learner and the subject, and is referred to as collaborative thinking (Armstrong, 2015). It involves the point of learning with others through discussion, debate, and questioning; and it takes
into account the constant influence of the environment (Armstrong, 2015). Vygotsky argued that the component of dialogue and discussion is actually the interaction of the two other domains, and learning is heightened through this interaction (Ghosh, 2004). This interaction and dialogue allows for further thinking, formulating new thoughts, understanding other perspectives, and forming a new structure of thought (Ghosh, 2004).

Learning is an active process where the learner constructs knowledge (Learning Theories, 2011). All staff members enter the classroom with different levels of knowledge; this is crucial for conversations, observations, and training (Domain 1: cognitive ability; Armstrong, 2015). Warford (2011) wrote that teaching teachers is a three-way conversation with past experiences, personal beliefs, and current instruction at the zone of proximal development or zone of proximal teacher development. Armstrong (2015) discussed the zone of proximal development and its implications for teaching:

To reduce the gap between the learners’ current development and where they could be with assistance, learning experiences must be designed to encourage the learner to pursue exercises slightly beyond their current capabilities. Fundamental here are the interactions and dialogue with others. (p. 134)

Therefore, the rationale for this theoretical framework was to understand the needs of ELL gifted students, and how professional development could be focused on teachers in order to increase their referrals for gifted identification testing. For teachers, this learning continued through the interaction with the material in PLCs.

**Definition of Gifted Education**

The interest in gifted education began early. A report to the Congress of the United States in the 1970s was influential, now referred to as the Marland Report (Colangelo & Davis, 2003). This report not only defined gifted education but also stated
that gifted students are in need of appropriate educational services (Colangelo & Davis, 2003). Since the Marland report, there have been many other renditions, reports, and definitions of *gifted*. According to Ford (1998), the lack of consensus in the definition is a problem.

A definition grounds common terminology and highlights the importance and necessities that everyone needs to know about the topic or subject. “Definitions provide the framework for gifted education programs and services, and guide key decisions such as which students will qualify for services” (National Association for Gifted Children [NAGC], 2011). The National Association for Gifted Children (NAGC, 2011) cites the federal definition of *gifted and talented*:

The term ‘gifted and talented,’ when used with respect to students, children, or youth, means students, children, or youth who give evidence of high achievement capability in such areas 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. (No Child Left Behind Act, P. L. 107–110 [Title IX, Part A, Definition 22] [2002]; 20 U.S.C. 7801[22] [2004]).

While this is the federal definition, each state also has a definition (2015). State definitions can vary from the federal one, which can cause more confusion about gifted students, identification, and services (Erwin & Worrell, 2012). The NAGC (2015) compiled the definitions for all states (see Table 1).
<table>
<thead>
<tr>
<th>State</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>No definition. Categories of giftedness for districts to use in determining eligibility for gifted education programs are provided. Location: <a href="http://www.cde.ca.gov/ds/sd/cb/glossary.asp#gate">http://www.cde.ca.gov/ds/sd/cb/glossary.asp#gate</a></td>
</tr>
<tr>
<td>Florida</td>
<td>6A-6.03019 Special Instructional Programs for Students who are Gifted. (1) Gifted. One who has superior intellectual development and is capable of high performance. (2) Criteria for eligibility. A student is eligible for special instructional programs for the gifted if the student meets the criteria under paragraph (2)(a) or (b) of this rule. (a) The student demonstrates: 1. Need for a special program. 2. A majority of characteristics of gifted students according to a standard scale or checklist, and 3. Superior intellectual development as measured by an intelligence quotient of two (2) standard deviations or more above the mean on an individually administered standardized test of intelligence. (b) The student is a member of an under-represented group and meets the criteria specified in an approved school district plan for increasing the participation of under-represented groups in programs for gifted students. 1. For the purpose of this rule, under-represented groups are defined as groups: a. Who are limited English proficient, or b. Who are from a low socio-economic status family. Location: <a href="https://www.frules.org/gateway/ruleno.asp?id=6A-6.03019&amp;Section=0">https://www.frules.org/gateway/ruleno.asp?id=6A-6.03019&amp;Section=0</a></td>
</tr>
<tr>
<td>Maryland</td>
<td>In this subtitle, “gifted and talented student” means an elementary or secondary student who is identified by professionally qualified individuals as: (1) Having outstanding talent and performing, or showing the potential for performing, at remarkably high levels of accomplishment when compared with other students of a similar age, experience, or environment; (2) Exhibiting high performance capability in intellectual, creative, or artistic areas; (3) Possessing an unusual leadership capacity; or (4) Excelling in specific academic fields. (Annotated Code of Maryland Title 8 § 201) Location: <a href="http://www.marylandpublicschools.org/MSDE/programs/giftedtalented/statute.htm">http://www.marylandpublicschools.org/MSDE/programs/giftedtalented/statute.htm</a></td>
</tr>
<tr>
<td>Massachusetts</td>
<td>No definition</td>
</tr>
<tr>
<td>Tennessee</td>
<td>“Intellectually Gifted” means a child whose intellectual abilities and potential for achievement are so outstanding the child’s educational performance is adversely affected. “Adverse affect” means the general curriculum alone is inadequate to appropriately meet the student’s educational needs… (TN BOE Rules 0520-01-09-.02(11)) Location: <a href="http://share.tn.gov/sos/rules/0520/0520-01/0520-01-09.20140331.pdf">http://share.tn.gov/sos/rules/0520/0520-01/0520-01-09.20140331.pdf</a></td>
</tr>
</tbody>
</table>

*Note. Source: National Association for Gifted Children (2015).*
Erwin and Worrell (2012) stated that the definitions of gifted education are broad and do not give any information to help with identification. They therefore are the root of many of the problems and misunderstandings of gifted education. With different federal and state definitions, and each district, county, and state identifying gifted students in a different way, this can cause confusion as well as underidentification, misidentification, and overidentification of gifted students (Erwin & Worrell, 2012).

According to the Colorado Department of Education website (2015), the definition for the state is:

Gifted and talented children means those persons between the ages of five and twenty-one whose abilities, talents, and potential for accomplishment are so exceptional or developmentally advanced that they require special provisions to meet their educational programming needs. Children under five who are gifted may also be provided with early childhood special educational services. Gifted students include gifted students with disabilities (i.e. twice-exceptional) and students with exceptional abilities or potential from all socio-economic and ethnic, cultural populations. Gifted students are capable of high performance, exceptional production, or exceptional learning behavior by virtue of any or a combination of these areas of giftedness:

- General or specific intellectual ability
- Specific academic aptitude
- Creative or productive thinking
- Leadership abilities
- Visual arts, performing arts, musical or psychomotor abilities.

Pairing a wide variety of definitions with the added complexity in the case of second language learners only contributes to the reasons for underrepresentation (Erwin & Worrell, 2012).

**Underrepresentation in Gifted Education**

“The issue of underrepresentation in gifted and talented (GT) programs has developed into a critical educational concern” (Esquierdo & Arregúin-Anderson, 2012, p. 35). While this issue has been researched, discussed, and analyzed for over 35 years, very
little has changed (Bernal, 2002). The underrepresented population still exists nowadays and it involves ELL, special education students, and children from poverty backgrounds (Bernal, 2002). Harris et al. (2009) stated that “despite increased awareness of the need to identify more ELLs into gifted programs, this population remains underrepresented in GT programs” (p. 370). The authors further stated that this lack of educational opportunities could lead to overall underachievement in ELL students. Bianco and Harris (2014) stated clearly that “one does not need to speak English in order to be gifted or academically talented” (p. 169).

The United States is not the same as it was 20 years ago (Esquierdo & Arreguín-Anderson, 2012). Esquierdo and Arreguín-Anderson (2012) cited the Census Bureau from 2007, stating that more than 30 million U.S. residents 5 years old and older speak Spanish. While the population of ELL increases, the identification of giftedness is not following suit. “Ideally, the difference between the general population by ethnicity and the gifted population by ethnicity should be close to zero” (Esquierdo & Arreguín-Anderson, 2012, p. 37). Hispanic children are identified for gifted programming half as often as white students (Brice, Shaunessy, Hughes, McHatton, & Ratliff, 2008; de Wet & Gubbins, 2011).

The state of Colorado publishes yearly data on its website in regards to this issue. That data identifies the amount of students in the district and the total percentage of students who are identified as GT in the district, as well as the percentage of ELL identified (CDE, 2015). While some districts have increased the GT ELL population, none have made it proportionate to the district ELL population (Esquierdo & Arreguín-Anderson, 2012). The data on ELL students being represented proportionally in the GT
population was analyzed for the Denver metropolitan area and included the following district: Adams 12, Adams 27J, Denver Public Schools, Adams 1, Adams 50, Jefferson County, and Adams 14. These districts comprised the geographic location on the Denver area, which are located in the vicinity of the researched district (CDE, 2015). Table 2 lists the data for 2015–2016 (CDE, 2015).

Table 2

Identified GT ELL Population in School Districts of Colorado

<table>
<thead>
<tr>
<th>District</th>
<th>Total Pk-12 Ct</th>
<th>GT %</th>
<th>Total ELL %</th>
<th>GT/ELL Population: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams 12-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northglenn</td>
<td>39,287</td>
<td>8.6%</td>
<td>19%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Adams 27J-</td>
<td>17,043</td>
<td>3.6%</td>
<td>13.7%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Brighton</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denver Public Schools</td>
<td>90,631</td>
<td>12.2%</td>
<td>31.4%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Adams 1-</td>
<td>8,738</td>
<td>2.4%</td>
<td>29.8%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Mapleton</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adams 50-</td>
<td>9,504</td>
<td>4.3%</td>
<td>41.3%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Westminster</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jefferson County R-1</td>
<td>86,708</td>
<td>13.1%</td>
<td>8.1%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Adams 14-</td>
<td>7,577</td>
<td>4.7%</td>
<td>43.1%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Commerce City</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Population Statistics

“Students witness the changing face of the country firsthand: Public schools began the 2014–15 school year with an unprecedented profile: For the first time, non-Hispanic white students are in the minority, according to Education Department projections” (Toppo & Overberg, 2014, n.p.). This has an impact on the students, but also on the teachers and on the educational system. As diversity is rising, the amount of
languages spoken in the classroom also increases ("The Hispanic Population 2010," 2010).

Our nation’s population is constantly changing in number, as demonstrated by self-identification data from the 2010 U.S. Census ("The Hispanic Population 2010," 2010). “The question on Hispanic origin was first introduced in the 1970 Census, and subsequently a version of the questions has been included in every census since” ("The Hispanic Population 2010," 2010, n.p.). The demographic change is evident in the numbers taken from the 2010 U.S. Census Brief Report and shown in Table 3 ("The Hispanic Population 2010," 2010). Table 3 demonstrates that the Hispanic or Latino population is growing at a faster pace than the majority population. Those of Hispanic or Latino origin grew at a 43% rate in 10 years. This is seven times more than the majority race, as classified by the heading “White alone or in combination.”

Table 3

*Population Numbers by Type: 2000 and 2010*

<table>
<thead>
<tr>
<th>Origin and Type</th>
<th>2000 Number</th>
<th>2010 Number</th>
<th>Change from 2000–2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>281,421,906</td>
<td>308,745,538</td>
<td>27,323,632 (9.7%)</td>
</tr>
<tr>
<td>Hispanic or Latino origin</td>
<td>35,305,818</td>
<td>50,477,594</td>
<td>15,171,776 (43%)</td>
</tr>
<tr>
<td>White alone or in combination</td>
<td>216,930,975</td>
<td>231,040,398</td>
<td>14,109,423 (6.5%)</td>
</tr>
</tbody>
</table>


Colorado is experiencing population growth at a record rate ("State Population," 2017). Based off the 2010 census, Colorado’s population was 5,029,196, and it is currently stated to be 5,470,274 in 2016. This implies an increase of 8.8% from the 2010 census to the 2016 census ("State Population," 2017). With a population increase rate of
1.56% per year, Colorado’s population changes constantly and at a rapid rate. It is in fact the fifth fastest growing state to date. In the 2010 census, 20.7% of the population identified themselves as Hispanic and Latino American (“Population 2016,” 2016). As the population rises in Colorado, so does the diversity and variety of languages spoken:

The 2000 United States Census found that 10.5% of people aged five and over in Colorado speak only Spanish at home, while the 2009 estimate shows being roughly 14%. Colorado has a large immigration presence throughout Colorado, which has led to Colorado cities being known as “Sanctuary Cities” for illegal immigrants as well. Colorado has the 4th highest percentage of undocumented people in the United States. (“Population 2016,” 2016)

Contributions to Underrepresentation

For over a decade, researchers have speculated about the causes of the discrepancy of identified GT students from diverse ethnic and linguistic populations (Anguiano, 2003; Barkan & Bernal, 1991; Bernal, 2002; Brice et al., 2008; Ford 1998, 2013; Ford & Trotman, 2001; Harris et al., 2007; Harris et al., 2009). While no cause can be solely responsible for the underrepresentation, each one must be reviewed to understand the problem at hand.

Ford and Grantham (2003) identified educators’ biases, test scores, and lack of training as key components of underrepresentation. Harris et al. (2007) echoed the statements of educators being a major component of the problem, and added that parents play a role as well in underrepresentation. Anguiano (2003) stated, “As there are no inherent intellectual differences among people of different ethnicities, there should be equal distribution of needs and exceptionalities throughout cultures (p. 32).” However, testing is another common component that has been blamed for holding back ELL students from being adequately represented in the gifted population (Ford & Grantham,
Another reason for the underrepresentation of ELL students is second language acquisition and the characteristics tied to this complex and time-consuming process (Anguiano, 2003).

**Teachers/educators.** The most prevalent reason for underrepresentation identified in the literature falls upon teachers or educators (Ford & Grantham, 2003; Harris et al., 2007). In many districts, teachers nominate students for gifted education; this nomination then spurs on the testing that is done for identification purposes (Ford & Grantham, 2003). This was confirmed when 30 states participated in a national review with the NAGC. The findings reported in the 2014–2015 *State of the States in Gifted Education* report (NAGC, 2015) showed that identification after a teacher referral was the highest (together with parent referral) response from the states. Table 4 presents the data, as reported by states, on the avenues that lead to gifted identification (NAGC, 2015).

### Table 4

*Typical Starting Method of Gifted Identification*

<table>
<thead>
<tr>
<th>Method</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following a teacher referral</td>
<td>19</td>
</tr>
<tr>
<td>Following parent referral</td>
<td>19</td>
</tr>
<tr>
<td>At multiple points in K-12</td>
<td>17</td>
</tr>
<tr>
<td>Following student referral</td>
<td>13</td>
</tr>
<tr>
<td>When students transfer from out of state</td>
<td>10</td>
</tr>
<tr>
<td>Other – purpose assessments also GT approved</td>
<td>9</td>
</tr>
<tr>
<td>When students transfer from in state</td>
<td>6</td>
</tr>
<tr>
<td>All screened in elementary school (one time only)</td>
<td>5</td>
</tr>
<tr>
<td>Kindergarten or early entrance screening</td>
<td>5</td>
</tr>
<tr>
<td>Entering middle school</td>
<td>3</td>
</tr>
<tr>
<td>Entering high school</td>
<td>2</td>
</tr>
<tr>
<td>Other Method (not specified by the report)</td>
<td>7</td>
</tr>
</tbody>
</table>

Teachers are the *gatekeepers* for gifted education, however teachers underrefer minority students to gifted programs (Ford & Grantham, 2003). Without a teacher’s referral, a second language learner may be missed for gifted identification, until the English language is mastered (Barkan & Bernal, 1991). Teachers can perceive differences with language as a deficit (Ford & Grantham, 2003).

Barkan and Bernal (1991) noted that “the most perplexing populations for traditional educators of the gifted to select and educate are gifted children from language-minority group” (p. 145). The reasons can be listed, but nothing has changed the truth: the ELL student identification system is not working well to meet the needs of these students (Anguiano, 2003). Harris et al. (2009) wrote that teachers are more likely to nominate students who answer questions, cooperate, and are punctual than students with disruptive behaviors. Ford and Grantham (2003) wrote that teachers use the characteristics of white students as a norm to compare to diverse students, further making it difficult for teachers to refer ELL students to gifted testing and identification.

Teachers are not being adequately prepared in college for dealing with diverse populations and understanding the differences in a multicultural classroom (Ford & Grantham, 2003). Teachers need to be taught, coached, and trained to work with ELL students in differentiation and classroom management strategies as well as in gifted needs (Esquierdo & Arreguín-Anderson, 2012). This lack of education and training manifests itself in the classroom with teachers having lower expectations of ELL students, and therefore not understanding and fostering their true potential (Harris et al., 2007).

Ford and Grantham (2003) stated that this lack of education leads to a negative perspective and stereotyping of diverse students. De Wet and Gubbins (2011) researched
teachers’ beliefs about diverse students and identified several perception barriers. Six of the 10 perceived barriers for identification of diverse students were found in teachers:

Especially among new teachers, negative assumptions about diverse students and novices’ lack of confidence in their ability to teach students from different ethnic, racial, linguistic, and socioeconomic groups can result in lowered expectations and limited practices [Guskey, 1995; Tucker et al., 2005]. These teachers utilize pedagogies based in deficit models that discount the knowledge these students bring into the learning environment and focus on students’ apparent weaknesses [Ford, 1996; Sagor & Cox, 2004]. (De Wet & Gubbins, 2011, p. 98)

Beyond higher education, the problem lies in teachers endorsed in gifted education: teachers who are not understanding ELL students and who are monolingual themselves (Esquierdo & Arreguín-Anderson, 2012). This becomes a double disadvantage for ELL students (Esquierdo & Arreguín-Anderson, 2012). Teachers are typically responsible for programming, being also the first ones to identify the gifts (De Wet & Gubbins, 2011). If there is a lack of understanding, not only are the gifts going unnoticed, but the programming will lack as well (De Wet & Gubbins, 2011). Another issue that arises in the schools is a lack of communication and understanding between ELL teachers and gifted teachers (Harris et al., 2009). This lack of communication, understanding, and skills continues to increase the disparity in the population of gifted ELL students (Harris et al., 2009).

**Tests and assessments.** Testing and assessments are another reason that contributes to the underrepresentation of ELL students identified for gifted education, as noticed by many researchers (Anguiano, 2003; Barkan & Bernal, 1991; Ford & Grantham, 2003; Harris et al., 2007). Beyond recommendations from teachers, standardized tests are commonly used to evaluate giftedness for identification. According to Barkan and Bernal (1991), the problem stems from the dominant culture relying on
standardized tests to make the decision of whether a student is gifted or not gifted. Ford and Grantham (2003) reiterated this statement and added that test scores continue to narrow the population identified as gifted to middle class and white populations.

For the longest time it was a common practice for ELL students to be assessed only with a nonverbal test (Lohman, 2005). Nonverbal tests were represented within the educational field as a culturally fair alternative (Lohman, 2005). Lohman (2005) wrote about the role of nonverbal tests to identify academically gifted students. Lohman (2005) stated, “I then argue that claims that such tests are ‘culture fair’ mislead because they encourage the mistaken belief that abilities can be measured in ways that are independent of culture, experience, and motivation. This is not possible” (p. 112). Lohman, Korb, and Lakin (2008) wrote that nonverbal tests do not predict academic success and should not be used alone to measure academic giftedness. One of the problems with underidentification is using only one test score for sole identification purposes (Lohman, 2005). Lohman (2005) stated, “I also would argue that measures of quantitative and verbal reasoning should generally be considered before the nonverbal-reasoning test in the identification process” (p. 112).

**Naglieri Nonverbal Ability Test (NNAT).** This test is administered to students utilizing only pictures. The pictures are progressive matrices that are comprised of colors that are most sensitive to those that have color sight problems (Naglieri & Ford, 2003). The test is comprised of 2x2, 2x3, and 3x3 of progressively difficult matrices that test students’ reasoning and problem-solving skills. Naglieri and Ford (2003) wrote that nonverbal tests are the best indicators for students who are not proficient in English. “The use of nonverbal tests helps reduce problems associated with measuring ability through
the use of language tests like vocabulary, for example” (Naglieri & Ford, 2003, p. 156). Currently, the NNAT has two versions of the test, which were last normed in 2008. The third version was released in May 2016.

Cognitive Ability Test (CogAT). The CogAT 7 is the most recent version of the test designed by David Lohman and released in 2011 (www.hmhco.com). There are three batteries offered: verbal, quantitative, and nonverbal. There are three subtests in each battery, measuring multiple formats to increase validity and fairness (Lohman et al., 2008). The test can be administered to students from kindergarten to 12th grade. The test was reviewed by Russell T. Warne and published in the Journal of Psychoeducational Assessment. Warne (2015) stated:

Most notable about the CogAT7, however, are the Herculean efforts to make the test as fair as possible for ELLs. At all test levels, oral instructions are available in English and Spanish. For Grades K–2, eight of the subtests do not require any reading or listening skills, and the remaining subtest (Sentence Completion) can be administered in English or Spanish. Starting at Grade 3, reading in English is required for the verbal subtests, but these can be omitted if school personnel judge that it is inappropriate to administer them to an ELL student. (p. 189)

The CogAT provides sample questions during proctoring and other samples are available for teachers to be used in order to allow students an understanding of the contents. This component was highly regarded for ELL students with the characteristic of mastering a skill quickly. The cognitive testing was the only score that was regarded during identification for GT for a long time. As more research begins to study the problem of underrepresentation, a body of evidence with several data pieces is being added to the cognitive score for identification.

Several issues were apparent through the review of literature. The use of tests as a sole indicator can be troublesome for the gifted ELL population. The other issue comes
with disagreement between researchers on the best test to use. Lohman stated not to use a nonverbal test, while Naglieri and Ford supported his nonverbal test with some research (Lohman, Korb, & Lakin, 2008; Naglieri & Ford, 2003). This controversy and confusion does not help the educational field in making decisions about identifying ELL students who are gifted.

Community and family. Another common theme for underrepresentation causation found in the literature is that parents need to be involved yet are rarely made to feel welcome as a part of the team to support their gifted children (Anguiano, 2003; Bernal, 2002; Harris et al., 2007). Parents from other countries rarely understand the school system and what programs are available for their children (Anguiano, 2003). They do not understand how to advocate for their children to receive proper programming (Anguiano, 2003). Advocating for a better education may not be part of families’ cultural make up, as well as not knowing what can be offered to the students (Anguiano, 2003).

In Table 4, parent referral was rated as high as teacher referral for identification. Language can be a barrier for parents and cause discomfort (Anguiano, 2003). Due to the language barrier, problems arise such as not being able to access gifted information or the lack of clarity in how the referral for gifted identification works (Anguiano, 2003). Anguiano (2003) showed that some cultures may frown upon being outspoken, while this is actually a common characteristic that can be linked to gifted students.

While parents need to be a part of the team, involved, and advocate, there is another aspect regarding parents and community addressed by Bernal (2002); an aspect that many do not want to acknowledge. The rise in culturally and linguistically diverse students into gifted programs may cause parents of students already in the program to
become upset and worried that the program requirements have been compromised and will no longer meet the needs of their child (Bernal, 2002). This can cause directors or administrators to shy away from a highly diverse program, in fear of losing support from those current families (Bernal, 2002).

**Language Development and Acquisition**

Giftedness in ELL students will manifest differently from its expression in the majority population (Esquierdo & Arreguín-Anderson, 2012). Language development and acquisition is a major component to underrepresentation. “Second language acquisition is a very complex and time-consuming process” (Anguiano, 2003, p. 33).

Language development is a progression that cannot be viewed as an exact science (Menyuk & Brisk, 2005). Similarly to motor development, language development happens differently in each child and on a continuum (Menyuk & Brisk, 2005). The importance lies in the knowledge of the continuum of language acquisition. While it is common knowledge that babies will sit up before they crawl, language development is not as well known (Menyuk & Brisk, 2005).

From the ages of 0 to 3 years old, a lot of development is occurring. These are formative years, and for many students these years are undocumented for teachers (Menyuk & Brisk, 2005). Krashen (2013) stated, “We acquire (not learn) the parts of a language in a predictable order” (p. 1). The beginning stage for students involves learning vocabulary and pragmatics of language through hearing the adults around them (Menyuk & Brisk, 2005). Oral development happens slower for students than auditory understanding (Menyuk & Brisk, 2005). As infants, the sequence moves from crying to cooing to babbling. “Babbling appears to be universal until 12 months” (Menyuk &
Brisk, 2005, p. 10). This babbling can be comprised of different sounds and “bilinguals develop two different sound systems without confusing them” (Menyuk & Brisk, 2005, p. 11). The babbling turn to utterances, and then utterances turn to sentences ranging from one to four words during the 22-month to 36-month period of time (Menyuk & Brisk, 2005).

The years of 0 to 3 are crucial in language development and later literacy development (Menyuk & Brisk, 2005). Thus, it is important to remember the impact of the family’s economic situation, culture, and values on language and education. “Sometimes bilingual children will use the easier structure in both languages” (Menyuk & Brisk, 2005, p. 14). While this can be construed as a deficit or delay, this is not true and this strategy should be viewed as a strength strategy (Menyuk & Brisk, 2005).

To this point in development, the language, vocabulary, and experiences happening around the child have been explored (Menyuk & Brisk, 2005). The pattern of development is as important to learn. Lightbrown and Spada (2006) reported on a longitudinal study by Brown that found “14 grammatical morphemes were acquired in a similar sequence” (p. 7). That study was able to prove that there is an order of acquisition and it was proven by a cross-sectional study of 21 children (Lightbrown & Spada, 2006). Another sequence noted in Lightbrown and Spada (2006) was negation and questions. This early information is key for educators to understand the development patterns of their students (Lightbrown & Spada, 2006).

To truly understand the learning and impact of language, it is crucial to understand the years of 0 to 3 (Menyuk & Brisk, 2005). The next stage covers Ages 3 to 5. For many ELL students, when they enter preschool, it will be their first introduction to
academic language and, for many, it will be the first time they are hearing standard English (Menyuk & Brisk, 2005). As students are immersed into the language, several strategies will be used to help with language understanding and production (Menyuk & Brisk, 2005). Strategies can include, but are not limited to, imitating, memorizing, and code switching (Menyuk & Brisk, 2005). This stage is considered the language learning stage by Krashen (2013) and it involves a conscious process taken on by a student. By the end of preschool, most sounds and words can be pronounced understandably; however, it is important to remember that stating the word is not the same as understanding the definition of the word (Krashen, 2013). This stage is referred to as monitoring in Krashen’s model. Krashen (2013) wrote, “The ability to produce language fluently and easily comes from what we have acquired. The grammar rules that we are learning in school have only one function: They act as a monitor, or editor” (p. 2).

While preschool introduces students to standard English, ELLs will have a smaller vocabulary and will not be equally exposed to both languages (Menyuk & Brisk, 2005). This is an important moment for these students, as this can be a predictor of struggling in reading if teachers are not aware of the needs of ELL students (Menyuk & Brisk, 2005). Storytelling, taking turn games, and social interaction are all of high importance at this stage (Menyuk & Brisk, 2005).

Macedo and Bartolome (2014) wrote that “there is a radical difference between a dominant speaker learning a second language and a minority speaker acquiring the dominant language” (p. 26). Teachers should understand that “bilingualism refers to two types of children: those who have been taught two languages from a very early age, and
those who started speaking a different language than that of the country they live in” (Nemes & Moraru, 2013, p. 20).

As teachers learn about their students’ language acquisition, understanding the process is key to success, as well as learning the parents’ viewpoint on language for their child (Menyuk & Brisk, 2005). The viewpoint of the parents and the partnership with teachers is monumental in the student’s development (Menyuk & Brisk, 2005). The parents need a clear goal for language, and teachers need to be able to support this goal, to truly allow a child to be a successful ELL student (Menyuk & Brisk, 2005).

Anguiano (2003) stated “as students acquire a second language they must also acquire an additional culture if they are to perform at the level of their peers” (p. 33). Anguiano (2003) cautioned that teacher nominations might not always be accurate if teachers are only looking for the students with straight As in their grades and those who are well behaved. More education and training, as well as a better-defined rating scale for teachers, need to be utilized for proper identification of ELL students (Brice & Brice, 2004). There is a difference between social and academic language at an early age (Lewis et al., 2012). The two major categories coined by Jim Cummins are basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP; Lewis et al., 2012).

**Basic interpersonal communication skills.** The language used in conversation and to interact with peers and teachers is considered BICS (Pereira & de Oliveira, 2015). This is the language that is used day to day in social settings (Pereira & de Oliveira, 2015). These social situations can falsely lead teachers to thinking that ELL students have
a stronger grasp of the English language than what may be true (Lewis et al., 2012).

Acquiring communication language can take between 3 to 5 years (Lewis et al., 2012).

**Cognitive academic language proficiency.** “The academic language necessary to grasp concepts in the different content areas was originally described as cognitive academic language proficiency” (Pereira & de Oliveira, 2015, p. 209). This language is typically on standardized testing and can be a challenge for students to master while working on the language to communicate (i.e., BICS; Pereira & de Oliveira, 2015). This is the content language and vocabulary (Lewis et al., 2012). Acquiring academic language can take 4 to 7 years (Pereira & de Oliveira, 2015).

**Differing Characteristics of Gifted Learners**

“It is important for school personnel to be aware of gifted behaviors and characteristics in the Hispanic population and rural populations in order to assist all students in their education” (Brice & Brice, 2004, p. 15). The characteristics of white gifted learners will be different from the characteristics of a language learning gifted student (Brice & Brice, 2004). Esquierdo & Arreguín-Anderson (2012) wrote giftedness in ELL students will appear differently than mainstream students.

In 2008, the Iowa Department of Education, together with the Belin and Blank Center, published a manual to be a resource for educators called *Identifying Gifted and Talented English language Learners, Grades K-12*. This manual is an in-depth look at GT ELL. The manual calls out the characteristics clearly:

Although researchers agree that educators need to know the characteristics of a gifted English Language Learner, there is disagreement—and little research—about these characteristics. Research has described gifted English Language Learners as having varying degrees of the following characteristics:

- Acquires a second language rapidly,
Esquierdo and Arreguín-Anderson (2012) list the following characteristics for a Hispanic bilingual gifted student from the research of Irby and Lara-Alecio (1996):

- Motivation for learning,
- Keen social and academic language,
- Cultural sensitivity (pride in their language),
- Strong family connections,
- Preference for collaboration,
- Elaborate imagination,
- High academic achievement,
- Creative performance (art, dance, physical activity),
- Problem solve, and
- Internal locus of control. (p. 43)

It is important to note that the second list calls attention to Hispanic bilingual gifted learners, while the list from the Iowa Department of Education leaves the category broad and only states bilingual.

**Changing Teacher Behavior**

Considering differing definitions and the lack of a clear policy for identification and a variety of characteristics in gifted children, teachers play a major role in identification (Barkan & Bernal, 1991; de Wet & Gubbins, 2011; Esquierdo & Arreguín-Anderson, 2012; Ford & Grantham, 2003; Harris et al., 2007). “At its core, the concept of a PLC (professional learning communities) rests on the premise of improving student learning by improving teaching practice” (Vescio, Ross, & Adams, 2008, p. 82).

Changing teacher behavior is a process that takes time (Fullan, 1994). Hunzicker (2011)
stated that effective professional development needs to be ongoing and coherent. Hunzicker (2011) wrote “professional development is most effective when teachers have multiple opportunities to interact with information and ideas over several months” (p. 178).

Bayar (2014) found six components for effective professional development. The first component was the need for information to align with teacher needs (Bayar, 2014). Hunzicker (2011) addressed this issue as well, stating that if the information gained through training could not be applied to the daily job immediately, it is less likely to be remembered. The information offered in the professional development needs to be job-embedded in order to be relevant and authentic (Bayar, 2014). Hunzicker (2011) further stated that adults learn best when they have clear goals in mind and when the work can relate to classroom experiences; therefore the transfer of knowledge is easier.

The second component was the need for information to align with school needs (Bayar, 2014). The accountability for teachers is increasing and alignment is highly important to teachers, so they know that the work they are doing and learning will align with the work on which the school is focused (Bayar, 2014). This practice will assist the teachers in feeling as though the professional development is aligned and the goals they make will be supported (Bayar, 2014). The professional development needs to be beneficial to the teacher in order to impact the classroom and, therefore, the school (Bayar, 2014).

The third component was that teachers need a voice in the information (Bayar, 2014). Vescio, Ross, and Adams (2008) reported that when professional development is driven by the needs of the teachers, engagement in learning increases. In Bayar’s (2014)
research, 12 of the 16 participants in his case study on effective professional development reported that they had no input in the planning of the professional development, hence making them feel disconnected from the training and material. Teachers need buy-in: their voices are the buy-in for the participation and transfer of the information to make the learning effective (Vescio et al., 2008).

The fourth component noted was that active participation opportunities are necessary to keep engagement and transfer learning (Bayar, 2014). Bayar (2014) wrote, “Another important component of any effective professional development activity is a design that allows the participants to engage in active participation during the activities; they want to learn by doing” (p. 324). Boyle (2004) referenced Loucks-Horsley et al. (1998), where it is stated that the successful activities for teachers included those where they can participate in learning the way we expect the students to learn. Teachers, as well as students, are aware that sit-and-get lectures in the classroom do not work (Boyle, While, & Boyle, 2004). Hunzicker (2011) stated, “Therefore, effective professional development is anything that engages teachers in learning activities that are supportive, job-embedded, instructionally focused, collaborative, and ongoing” (p. 177).

The fifth component was the need for long-term engagement in the topic and learning (Bayar, 2014). Bayar (2014) cited, “Torff and Sessions (2008) stated that prolonged (long-term) professional development activities are more effective than shorter ones” (p. 324). Boyle (2004) reported that professional development is advantageous when it is a long-term practice and not a one-time hit lecture. To keep professional development as a long-term focus, many schools have moved to more frequent meetings in smaller groups (Bayar, 2014).
Finally, the sixth component was that the instructor or facilitator needs to be of high quality and knowledgeable (Bayar, 2014). This component is not easily defined or quantified; the No Child Left Behind Act (NCLB) (2002) addressed this need as well, but never defined or set forth parameters to measure this aspect (Bayar, 2014). Teachers want someone who knows the work, but who also knows the job they do every day. A knowledgeable facilitator will automatically infuse the first five components to get maximum learning and effect on the student population (Bayar, 2014).

**Professional learning communities.** With so many components and the overwhelming knowledge that one-time sit-and-get workshops do not work, more schools are turning to PLCs (Bayar, 2014; Boyle et al., 2004; Hunzicker, 2011; Vescio et al., 2008). DuFour, DuFour, and Eaker (2010) defined a PLC as:

> Educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve. Professional learning communities operate under the assumption that the key to improved learning for students is continuous, job-embedded learning for educators. (p. 14)

Vescio et al. (2008) reviewed the research on PLCs and found four common themes that contributed to change in the teaching: “collaboration, a focus on student learning, teacher authority, and continuous teacher learning” (p. 84). These four themes are explained as follows.

**Collaboration.** “Collaboration is a means to an end, not the end itself” (DuFour, DuFour, & Eaker, 2010, p. 16). Collaboration is viewed as an effort to encourage sharing, risk-taking, and reflecting (Vescio et al., 2008). Through collaboration, the teachers can continue learning each day and receive feedback and guidance (Vescio et al., 2008). While teaching can be viewed as an isolated field, the practice of collaboration leads to a
fundamental change in this view and therefore also changes teacher culture and practice (Vescio et al., 2008).

**Focus on learning.** The learning of the student is the core of PLCs; it is the fuel for the purpose (Vescio et al., 2008). Student learning is viewed as a cyclical process focusing on current levels of understanding, learning new strategies, implementing those strategies, analyzing the results, and then improving and enhancing the learning (DuFour et al., 2010). This cycle then starts again. The constant focus on the students, together with the support of others through the collaboration, is what leads to the change in the classroom and, ultimately, the students (DuFour et al., 2010).

**Teacher authority/buy-in.** It is imperative that teachers have a voice in what they will learn about, as well as how they will participate in the learning (Vescio et al., 2008). This can start with creating a shared mission, vision, values, and goals (DuFour et al., 2010). The shared mission will start the collaborations early on. The vision will provide the clear direction and ensure alignment to school needs (DuFour et al., 2010).

**Continuous learning.** “The more time teachers engage in professional development, the more likely their teaching practice is to improve, but professional development is most effective when teachers have multiple opportunities to interact with information and ideas over several months” (Hunzicker, 2011, p. 178). This entails a growth mindset and a willingness to learn and to be open to the process (Vescio et al., 2008). This continuous learning is powerful for the teachers and for the students, who reap the benefits of the teachers in a PLC (Vescio et al., 2008).
**Gap in the Literature**

Missing from the literature on this persistent problem of practice is a method or methods that could be used to eliminate this problem. The research on the causes is plentiful, however the solutions are limited. Thus, the problem is identified, the causes are speculated, but the research to solve the problem is lacking.
CHAPTER 3: METHODOLOGY

English language learner students are less likely to be referred for identification as gifted and one of the primary causes is related to identification falling to the teachers (Barkan & Bernal, 1991; de Wet & Gubbins, 2011; Esquierdo & Arreguín-Anderson, 2012; Ford & Grantham, 2003; Harris et al., 2007). Since teacher referrals are the primary method to start gifted identification testing, it becomes necessary for teachers to know and recognize the characteristics of ELL students who may be gifted (NAGC, 2015).

The purpose of this study was to evaluate the impact of professional development and PLCs on referrals of ELL preschool students for gifted identification. The research questions driving this action research and mixed-method approach were:

1. What are preschool staff members’ understandings of the characteristics of ELL identified as GT?
2. Are PLCs effective in increasing preschool staff members’ understanding of the characteristics of gifted ELL students?
3. Does a change in staff members’ understanding lead to an increase in ELL students being referred for identification as GT?

These research questions and the literature review led to a mixed-methods approach to gauge the impact of professional development and PLC sessions for referrals to the GT identification process for ELL students.
Methodology

The purpose of this mixed-methods research study was to determine the impact of professional development on referrals of ELL students for GT identification by preschool staff in the 2016–2017 school year. Creswell (2014) defined mixed-methods as “an approach to inquiry that involving collecting both quantitative (close-ended) and qualitative data (open-ended), integrating the two forms of data, and using distinct designs that may involve philosophical and theoretical frameworks” (p. 4). The quantitative measures were addressed in the survey (pre and post). The qualitative measures were addressed in the survey (pre and post), in the exit tickets from each event, and in the discussion notes from the PLC meetings.

The conceptual lens used during the creation of the intervention was change theory by Michael Fullan and his eight lessons about change in educational systems (1994). With the conceptual lens of change the study was designed to start the staff members on the journey of change (lesson 2) and involve portions of time to individualism efforts and collective efforts (lesson 5; Fullan, 1994). The intervention was created with both a top down approach (involving the community partner that is the director) and bottom up approach by empowering all staff members to have the ability to refer students (lesson 6 and 8; Fullan, 1994). The interventions combined research literature, conversation, and resources to assist in the understanding of the characteristics (lesson 7; Fullan, 1994). While the teacher voice was limited, the PLCs allowed for the teachers to provide input (Bayar, 2014). The voice was highlighted in the conversations and connections to the literature.
The theoretical framework of the professional development and PLCs was rooted in constructivism and Vygotsky’s zone of proximal development (Armstrong, 2015). Constructivism has three components of learning: endogenous, exogenous, and dialectical (Armstrong, 2015). Vygotsky’s zone of proximal development is found in the dialectical component of constructivism, rooting learning through discussions (Ghosh, 2004).

A quantitative approach was used to analyze the survey results from the preintervention survey and the postsurvey. The quantitative data on the survey was found in the questions asking the staff members how many ELL students they had referred for GT identification. Hubbard and Power (2003) wrote, “Baseline data, or information you collect at the beginning of the project to determine the ‘starting point’ of understanding, and can play a critical role in your findings later on” (p. 62). The preintervention survey served as the baseline data for the study. The data from the surveys were analyzed to determine if referrals for identification were related to professional development on characteristics of ELL and gifted students. A qualitative approach was used during the PLCs by audio recording, note taking, and coding the discussions that took place during these events. A qualitative approach was also taken to review the answers on the presurvey and postsurvey, as well as the exit ticket post-professional development.

The researcher followed a modified version of Tesch’s Eight Steps for the coding process (Creswell, 2014). The steps were first to get a sense of the whole, then to look for the overall meaning from all the data (Creswell, 2014). Next, the researcher looked through all notes taken from the recording, exit tickets from the events, and notes taken from the session and made a list of topics and codes (Creswell, 2014). Finally, the
researcher created categories, assembled the data in the categories and recoded any final data (Creswell, 2014). These steps were modified for notes. Common themes of understanding and misunderstandings were looked for, as well as any other themes that may naturally occur through the process. This process was similar to the informal interview process described in Hubbard and Power (2003): “they are often spontaneous” (p. 60). The researcher worked to capture the natural conversation of the PLC, as well as the thoughts of the staff, as they progressed through the learning about ELL students and gifted characteristics. The use of the mixture of the data collected through the systems mentioned above allowed for a theory to arise on the possibility of changing teacher behavior through understanding. “The two forms of data are integrated in the design analysis through merging the data, connecting the data, or embedding the data” (Creswell, 2014, p. 217).

Theoretical Framework in the Design

The professional development created for the preschool staff followed the three domains of the constructivist theory for professional development. The three domains are: endogenous (background knowledge), exogenous (previous experience/environment), and dialectical (interaction with others; Armstrong, 2015). To maximize learning for the staff, the zone of proximal development and importance of conversation was a focus (Ghosh, 2004). The dialectical sections of the intervention enhanced the ability to manage change collectively (Fullan, 1994).

The presurvey was structured for the preschool staff members to identify three to five characteristics of an ELL student who may be gifted. This information allowed for a voice to be heard in the current knowledge of the topic for the professional development.
A self-rating of their current knowledge also took place with a sliding bar that displayed their own belief of the grade they would receive on this topic. These questions tapped into current knowledge, prior to the intervention, which is in the endogenous zone (Armstrong, 2015). The professional development was mainly comprised of time interacting with each other on the topics of ELL and giftedness; the dialectical component (Armstrong, 2015). This time allowed for the staff to blend previous knowledge and experiences with each other to expand their learning; “all cognitive learning occurs at a social level before occurring at individual level” (Ghosh, 2004, p. 306).

The PLCs were designed to further model the three domains of learning (Armstrong, 2015). The staff members attending the PLC were provided with a chapter of literature to read prior to the meetings, thus providing them a new level of cognitive ability, enhancing their endogenous domain (Armstrong, 2015). The staff members were given the chance to connect the information learned to their previous experiences and environment (exogenous domain; Armstrong, 2015). This information led the conversation and allowed the staff for learning to continue through dialogue (dialectical domain; Armstrong, 2015). The researcher served as the facilitator to assist in the making sure the conversation stayed on topic and flowed. One limitation for the set up of the PLCs was that the topic and resources were not rooted in teacher design or voice (Bayar, 2014). The components of change theory were taken into account to assist with as much learning as possible to begin to uncover the gifts of ELL students in preschool. The PLCs were designed to provide background knowledge and information before attending the conversation and collaborative section of learning.
Setting and Participants

This action research study took place in a school district in the Denver metropolitan area. This district is stretched through five cities and two counties; it has over 16,000 students and serves students starting at three years of age. As of 2013, there were 1,974 limited English proficient students (NCES, 2014). The ethnicity percentages are as follows: White – 48%, Hispanic – 44%, Asian – 3%, two or more races – 3%, and Black – 2% (NCES, 2014). The school district has a free and reduced meal rate at 37%.

The participants were the certified and classified staff members who worked in the district preschool program. The district preschool is comprised of students who have qualified for special education services or for high risk factors (CDE, 2017). These risk factors include but are not limited to: speaking a different language than English at home, single parent household, homeless or living with another family due to financial needs, or having a parent or parents who do not have education beyond high school (CDE, 2017).

The staff members ranged in ages, levels of experience, positions in the classroom and levels of education. The idea of bringing all the preschool staff members together from across the district enhanced Fullan’s change theory model that every teacher is a change agent and work on the bottom up approach to change (1994). “The individual educator is a critical starting point” (Fullan, 1994 p.23). This change agent idea was extended to all staff members that work with the students to allow for the staff to learn about the characteristics in an effort to help the staff members begin to uncover the gifts in the ELL population of the district.
Intervention Overview

This section provides a brief overview of all parts of the research study; each component will be explained in further detail in the following sections. The intervention spanned over a 3 month period of time in the beginning of the school year to assist the staff in the start of their new classrooms. Below is a visual tool for the steps of the research study.

![Steps of the research project](image)

*Figure 1.* Steps of the research project.

The first step in the research study was the presurvey to gather baseline data. Next, all certified and classified staff participating in this study received four hours of professional development in August on gifted characteristics in ELL students, as well as training on second language acquisition (consent form located in Appendix G). The professional development was offered on a contract day that was set aside for training, which was voluntary for all members to attend. The training presentation is located in Appendix I.

After the professional development, staff had the opportunity to participate in a PLC series that provided readings about gifted characteristics, second language
acquisition, and giftedness in ELL students. The PLC encompassed the readings from books on GT, as well as second language. The reading provided a framework for the discussion between staff members to enhance the learning in order to aid teachers in identifying students who may possess the characteristics for an ELL gifted student. The research project intervention ended with a postsurvey emailed to all certified and classified staff members. This survey included the same questions of the presurvey.

**Intervention Specifics**

The research project spanned from August until the end of November 2016. The research had full support from the school district, community partners, and preschool staff members. Each portion of the study is detailed below.

**Survey.** A survey was sent to the 45 staff members, prior to the professional development, that were set to work in the preschool for the school year 2016–2017 in August 2016 (see Appendix C). The purpose of this survey was to gather data on current understandings of characteristics of GT ELL students and data on how many students had been referred by the staff for gifted testing. This survey served as the baseline data for Research Questions 1 and 3.

**Professional Development**

The staff received the information about the training via an e-mail (Appendix B) from the Early Childhood Specialist/Community Partner. The professional development had 4 hours dedicated to the learning and worked around gifted characteristics and ELL characteristics. The learning was designed around Vygotsky’s zone of proximal development and learning through discussions (Ghosh, 2004). The professional development allotted a majority of the time to small group discussion to assist the staff in
learning. The dialogue of previous knowledge and background from each staff member provided enriching discussions in regards to the characteristics of gifted learners and ELL students (Armstrong, 2015). Details regarding the agenda of learning tasks followed in the professional development are shown in Table 6.

Table 5

Survey Questions

<table>
<thead>
<tr>
<th>Demographics:</th>
<th>Demographics:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Please select your position for this school year.</td>
<td>1. Please select your position for this school year.</td>
</tr>
<tr>
<td>2. How many years have you worked in this position?</td>
<td>2. How many years have you worked in this position?</td>
</tr>
<tr>
<td>3. Did you complete the presurvey in August?</td>
<td>3. Did you complete the presurvey in August?</td>
</tr>
<tr>
<td>4. Please select the training events you attended so far this school year.</td>
<td>4. Please select the training events you attended so far this school year.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Self reporting question:</th>
<th>Self reporting question:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. How many second language learner students did you refer for gifted and talented testing last year?</td>
<td>5. How many second language learner students did you refer for gifted and talented testing last year?</td>
</tr>
<tr>
<td>4. How knowledgeable are you with the characteristics of a gifted ELL preschool student? Please drag the bar to give yourself a grade.</td>
<td>6. How knowledgeable are you with the characteristics of a gifted ELL preschool student? Please drag the bar to give yourself a grade.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evidence of knowledge:</th>
<th>Evidence of knowledge:</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Please list 3–5 characteristics of a gifted ELL learner, if you know any. If you do not know any please type “none at this time.”</td>
<td>7. Please list 3–5 characteristics of a gifted ELL learner, if you know any. If you do not know any please type “none at this time.”</td>
</tr>
</tbody>
</table>
Table 6

**Agenda**

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00–8:45</td>
<td>Sign in, name tags, introductions, light breakfast; signing of consent forms</td>
</tr>
<tr>
<td>8:45–9:15</td>
<td>Ice breakers</td>
</tr>
<tr>
<td>9:15–9:30</td>
<td>Objectives</td>
</tr>
<tr>
<td>9:30–9:50</td>
<td>ELL student characteristics</td>
</tr>
<tr>
<td>9:50–10:00</td>
<td>Share out of characteristics</td>
</tr>
<tr>
<td>10:00–10:25</td>
<td>Second language acquisition mini lesson; BICS and CALP as it relates to staff and students</td>
</tr>
<tr>
<td>10:25–10:35</td>
<td>Break</td>
</tr>
<tr>
<td>10:35–10:50</td>
<td>GT characteristics</td>
</tr>
<tr>
<td>10:50–11:00</td>
<td>Share out of characteristics</td>
</tr>
<tr>
<td>11:00–11:30</td>
<td>GT characteristics vs. high achieving characteristics</td>
</tr>
<tr>
<td>11:30–11:50</td>
<td>Referral process protocol</td>
</tr>
<tr>
<td>11:50–12:00</td>
<td>Exit ticket</td>
</tr>
</tbody>
</table>

**Ice breakers.** The goal of the ice breakers was to assist all staff to get to know each other. The staff came from a variety of schools and therefore several of them did not know each other. The first ice breaker included a strategy called “Question That!” (Kingore, 2013). In this particular strategy, the group is provided an answer, and the participants create the question that would elicit the provided answer. The answers used were “excited” and “intrigued.” The other ice breaker was called “Find your Match” from the Sheltered Instruction Observation Protocol (Vogt & Echevarria, 2008). In this strategy, the group was provided colors written in different languages and they were delivered among the staff members, who needed to find their match and introduce themselves. After the staff members were better acquainted the participants returned to their seats to review the objectives and schedule of the professional development.

**Objectives.** A review of the objectives of the morning of the professional development and questions about the research study were answered. The objective of the
morning of the professional development was to develop knowledge around characteristics of gifted ELL preschool students.

**ELL characteristics.** The first learning introduced was in regards to the characteristics found in ELL preschool students. The ELL students, for the training, were defined as students learning English and spoke another language at home. Classroom learning teams created a list of characteristics of ELL preschool students on chart paper. By engaging the staff members in an activity that calls upon previous knowledge (endogenous domain) the staff were able to feel more comfortable and they were able to engage more in the conversation (Armstrong, 2015). The learning teams allowed for trust within the group before moving through the room. After the learning teams were finished, the small groups were asked to walk around and share the brainstorm posters with other classroom learning teams to add to their knowledge. This strategy supported the dialectical domain and the learning in the zone of proximal development to push the thinking and knowledge to the level needed for transference (Armstrong, 2015; Ghosh, 2004). It called upon their previous experience and knowledge, and allowed for the groups to see other posters as well as further the dialogue from the new information (Armstrong, 2015; Ghosh, 2004). Once staff members completed the characteristics of an ELL learner and participated in discussion to further staff members’ learning about second language acquisition.

**Second language acquisition mini lesson.** A brief lesson (about 15 minutes) on language acquisition was given to describe the two types of language seen in students. Staff were able to learn about CALP and BICS (Lewis et al., 2012). Small group discussions about the understanding and questions occurred around the iceberg graphic
used by Cummins (Figure 2). Staff members were asked to identify the BICS and CALP language used up to that moment of the day (Lewis et al., 2012). The conversation aided the transfer of knowledge and to deepen understanding of the concept (Ghosh, 2004).

Understanding the needs and usefulness of the interpersonal communication skills before the academic language skills assisted the staff in the instruction of second language learners.

![Cummins' Iceberg Theory](http://www.witslanguageschool.com)

*Figure 2. Cummins’ iceberg theory (http://www.witslanguageschool.com).*

**Gifted and talented characteristics.** The classroom teams came together and brainstormed the characteristics of GT preschool students. The characteristics were put on poster papers. Staff members were asked to work in classroom groups to brainstorm GT characteristics; this engaged their background knowledge and previous exposure.

Through discussion, the staff were able to learn other characteristics or to be reminded of previously known characteristics. This enhanced learning through conversation (Ghosh,
Once the learning teams worked together, the small groups then walked through the room and shared their work with other learning teams in order to encourage further thinking and discussion. The staff members came back together to debrief all characteristics and moved into differentiating between gifted and high achieving students.

**Gifted versus high achieving.** The staff had a 15-minute lesson on the differences between gifted and high achieving students. The staff then created a Venn Diagram to assist in understanding the differences. This portion was intended to help the staff understand the differences between gifted and high achieving students through a visual component. Discussions occurred around the differing characteristics based on culture as well. The chart from Kingore (2013) was adapted to only include the two columns on high achiever and gifted learner was distributed to all staff members.

**ELL characteristics/GT characteristics activity.** All staff members were given a few minutes of quiet time to record three characteristics learned during the professional development. Once members had write three characteristics, they were invited to place the Post-Its on a large diagram to see the characteristics that were in both ELL students and GT students, as well as see the characteristics that were only in ELL students or only in GT students. When the activity concluded, the staff members returned to the tables to learn about the process to refer students that may be gifted.

**Referral process.** The staff discussed the process for student referral for students in preschool that may be GT. This process consists of having three pieces of observational data to support the belief of gifted characteristics (observations, notes, classwork). The observational data is taken to the school GT teacher leader. The teachers were able to discuss the possible data that could be collected and reference the
characteristics list created during the professional development. Upon completion of the discussion with the school GT leader, the teacher will receive and complete the formal observational form called the Scales for Identifying Gifted Students (SIGS; Ryser & McConnell, 2004). The teacher will send home a Request to Test permission form and a parent version of the SIGS (Ryser & McConnell, 2004). The SIGS will be returned and scored by the GT teacher leader (Ryser & McConnell, 2004).

**Exit ticket.** Staff received and completed the exit ticket at the end of the session (see Appendix E). The exit ticket consisted of three questions. The first question asked the staff to list new learning resulting from the training. The second question asked for the characteristics of a GT ELL learner. The final question asked the staff to think about one action item to take back to the classroom from their learning in the professional development. All exit tickets were anonymous.

**Professional learning community plan.** The staff had the opportunity to attend the three PLCs that lasted for 90 minutes at the district building. PLCs took place on the first Wednesday of the month. The learning fell especially in Vygotsky’s zone of proximal development with dialectical learning (Ghosh, 2004). The conversation was key to furthering growth in the staff members’ zone of proximal development. The readings were intended to serve as an additional component to the endogenous and exogenous learning (Armstrong, 2015).

The structure of the PLC had the staff members bring the assigned literature to each meeting; literature was e-mailed one week prior. The warm up activity for each PLC was for the staff members to share one connection noticed during the reading. A connection could be something remembered during the reading, such as a past student or
personal experience. Once all members shared their connections, the next question explored any questions the staff members had during the reading. As staff members shared their questions, other members were encouraged to participate in the conversation to propel the learning for the group as seen in the dialectical component (Armstrong, 2015). As the first hour came to an end, the researcher led the discussion toward action steps with the new information learned. In the last 15 minutes of the PLC, the staff members received the exit ticket for the specific event. The three PLC meetings were structured as follows (Table 7).

Table 7

<table>
<thead>
<tr>
<th>PLC</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC #1</td>
<td>Identifying Gifted and Talented learners through characteristics</td>
</tr>
<tr>
<td>PLC #2</td>
<td>Second Language Acquisition</td>
</tr>
<tr>
<td>PLC #3</td>
<td>Giftedness in culturally, linguistically, diverse students</td>
</tr>
</tbody>
</table>

**PLC 1.** Staff read, prior to attending, a book chapter called “Identification Characteristics” (Johnsen, 2005). The PLC began with a review of the chapter, followed by discussion and key learning points shared by the members. This section of the book reviews the general intellectual ability, specific academic field, artistic area, leadership, and affective needs of gifted students. The discussion related to identifying these characteristics in the classroom.

**PLC 2.** Staff read, prior to attending, the chapter called “Second Language Acquisition” from the book, *Identifying and Serving Culturally and Linguistically Diverse Students* (Lewis et al., 2012). The PLC began with a review of the chapter, followed by discussion and key learning points shared by the team members. The chapter
covered the domains and stages of language, theory, and components of learning a language.

**PLC 3.** Staff read, prior to attending, the chapter called “Giftedness in CLD” in the same book as PLC 2 (Lewis et al., 2012). The PLC began with a review of the chapter, followed by discussion and key learning points shared by the team members. The chapter covered eight principles of GT education, as well as different models of programming seen in classrooms. All three PLC meetings were held at a district building and lasted 90 minutes. All PLC meetings had an emphasis on conversation and dialectical learning (Armstrong, 2015). The meetings encouraged conversation and sharing of ideas and experiences.

**Summary of intervention.** This research project included several components over 3 months of time. The research project began with a presurvey to all staff members of the preschool program for the 2016–2017 school year. The first intervention was a professional development for all staff members that included the three learning components found in constructivism (Armstrong, 2015). The professional development focused on the characteristics of ELL students, characteristics of gifted students, and the characteristics of an ELL GT student. The next intervention offered was three PLC sessions to further the learning of the ELL characteristics, the GT characteristics, and the ELL GT student characteristics. The intervention lasted for 3 months before the postsurvey was sent to all staff members.

**Data Collection**

Table 8 defines the months and actions for this intervention. Participants were asked to commit to attendance to all sessions for learning consistency through the PLCs.
Table 8

_timeline of Intervention_

<table>
<thead>
<tr>
<th>Date</th>
<th>Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 2016</td>
<td>• Data collected from survey</td>
</tr>
<tr>
<td></td>
<td>• Professional development (PD) on characteristics of ELL students and gifted</td>
</tr>
<tr>
<td></td>
<td>students exit ticket collected</td>
</tr>
<tr>
<td>September 2016</td>
<td>• Data reviewed from PD exit ticket</td>
</tr>
<tr>
<td></td>
<td>• First PLC meeting exit ticket collected</td>
</tr>
<tr>
<td></td>
<td>• Notes and audio recording collected</td>
</tr>
<tr>
<td>October 2016</td>
<td>• Second PLC meeting exit ticket collected</td>
</tr>
<tr>
<td></td>
<td>• Data gathered and audio recordings collected</td>
</tr>
<tr>
<td>November 2016</td>
<td>• Third PLC meeting exit ticket collected</td>
</tr>
<tr>
<td></td>
<td>• Data gathered and recordings collected</td>
</tr>
<tr>
<td></td>
<td>• Survey data from certified and classified staff</td>
</tr>
</tbody>
</table>

_data collection instruments._

_pre-professional development (intervention) survey._ All staff were e-mailed a link to a survey on Qualtrics, a survey software program, in order to gather baseline data and information to help formulate the August professional development. The e-mail is provided in Appendix B. The survey was anonymous, and the purpose of the researcher was shared in the beginning of the survey. The survey asked staff members questions to measure: (a) current position, (b) the length of time of experience working in a preschool classroom, (c) the number of students who had previously been recommended for GT identification testing, and (d) the level of understanding of characteristics in gifted ELL students. The survey is available in Appendix C.

_exit tickets from professional development and PLC meetings._ As staff members left the August professional development and the PLC meetings, an exit ticket was collected each time. After each session, each staff member was asked to write one major take away that the participant received from the intervention and one action item they
planned to put into place as a result of the intervention, as well as session-specific questions. The exit ticket used after the professional development was three questions and is located in Appendix D. The exit tickets for the PLCs were four questions and are located in Appendix E. The PLC exit tickets allowed the participants to reflect on the learning from the PLCs as well as the actions taken. All data was stored in a locked filing cabinet at the researcher’s home office and kept for 1 year post-research study.

**Notes from professional learning community meetings.** The PLC meetings were recorded for reference for the researcher to go back and take better notes than those taken during the learning time. Notes were taken, recordings were listened to three times each, and the information was added to the original dated notes. All notes were then reviewed and coded into categories. All recordings were kept locked in the home office of the researcher.

**Postsurvey for all teachers.** All staff were emailed an anonymous survey to gather postintervention data. This survey, available in Appendix F, asked staff members questions to remeasure: (a) the length of time of experience working in a preschool classroom, (b) number of students who had been recommended since the August professional development for GT identification testing by the participant, and (c) the level of understanding of characteristics in gifted ELL students.

**Data collection procedure and process.** Surveys were distributed through Qualtrics. The surveys were piloted with three educators to ensure that the data received would be of acceptable quality and that the questions had fidelity. The researcher had the community partners each take the survey. Once the data was returned, the researcher verified the data provided was as intended. Once the discussion was complete, all
responses were deleted from Qualtrics. The survey link with the information about the study was distributed via e-mail.

**Quantitative data.** The survey results were analyzed to compare the change in the referral rate of students referred for GT testing pre-professional development and post-professional development. Data were analyzed comparing the participants who took part in the PLC versus the participants who took part only in the 4-hour training. The data analyzed was the amount of students referred and the current understanding of characteristics for gifted ELL students as per a self-grading question on the survey. An analysis was conducted to compare two populations of results from the presurvey and postsurvey and to analyze the change of referrals. The presurvey and postsurvey were identical to allow for this comparison.

**Qualitative data.** One question on the survey asked the staff members to list three to five characteristics of an ELL gifted student. These traits were collected and scored to determine a level of understanding as measured from the presurvey to postsurvey timeframes. The other qualitative data collected was through the notes and audio recording of the PLCs. This information was coded to look for themes that could be compared to the end of data collected via the survey. The PLCs were based off the dialogical learning from Vygotsky’s zone of proximal development and the constructivist theory of learning (Armstrong, 2015; Ghosh, 2004; University of Sydney, 2017). The coding of the learning captured in the notes and audio recording allowed for the researcher to categorize the themes discussed through the PLCs in regards to the characteristics of ELL students who may be gifted.
Threats to Validity

One threat to the validity of this study is the fact that the survey data may be skewed due to the Instructional Specialist in the district. This may have brought out different responses in the staff. While the research will not be shared with administration or reflected in the staff members’ evaluation, there may have been a fear of transference due to the researcher’s position in the district. Another threat to validity is the staff members’ self-grading on the survey. Some staff members may have felt personal angst or reservation toward self-assigning a grade in regards to their knowledge of the characteristics of ELL gifted students. The survey question was a letter grade icon and this may have skewed participants’ perceptions.

Data and Product Share

All data collected was kept anonymous and available to the participants upon completion and request. The data was reviewed with the community partners in a summarized fashion. No original pieces were shared since the exit tickets were hand-written.

Role of the Researcher

The researcher was the cofacilitator for the training with the community partner. Both the researcher and the community partner hold administrative roles within the district. The information collected may not be accurate due to the role of the researcher in the district. It is possible that participants provided skewed information in fear of being honest due to the roles of the facilitators.

However, it is also important to note that, as the researcher is an employee of the district, this may allow for a different level of acceptance by the staff members. The staff
will understand the level of investment in them, in the students, and in the school district. This may have allowed more trust and confidentiality than if the researcher was not connected to the school district. This dual role is supported in change theory. Fullan (2007) wrote,

> Change agents, or facilitators external to the district - that is, in regional, state, or national roles - play an important part in initiating change projects. Many roles at these levels are formally charged with the responsibility for stimulating and supporting change. The importance of these roles, especially at the initiation stage, has been documented over a number of years.” … “Still, no matter how you dice it, strong leadership internal to the school or the district is a crucial variable (p.76).

**Conclusion**

The purpose of this mixed-methods research study was to determine the impact of professional development on referrals of ELL students for GT identification by preschool staff in the 2016–2017 school year. The research design was completed using the learning theory of constructivism and Fullan’s change theory. Constructivism has three components of learning: endogenous, exogenous, and dialectical (Armstrong, 2015). The intervention was planned for 3 months and data were collected through each stage. A quantitative approach was used to analyze the survey results from the preintervention survey and the postsurvey. A qualitative approach was for the data from the surveys and intervention exit tickets. The primary focus of the intervention sessions was to review the characteristics of ELL students, GT students, and ELL students that may be gifted. The intervention was in the form of a professional development and three subsequent PLC sessions. This chapter reviewed the plan for each intervention step and the data collected from each step.
CHAPTER 4: RESULTS AND ANALYSIS

The problem of practice researched was the impact of professional development on the number of ELL students referred for gifted testing. English language learners are less likely to be identified as GT due to a variety of reasons (Harris et al., 2009). One reason found in the literature review was teachers (Barkan & Bernal, 1991; de Wet & Gubbins, 2011; Esquierdo & Arreguín-Anderson, 2012; Ford & Grantham, 2003; Harris et al., 2007). Another reason found was testing and assessments (Anguiano, 2003; Barkan & Bernal, 1991; Ford & Grantham, 2003; Harris et al. (2007). Another reason found in the literature review was the role that families played into the problem of practice (Harris et al. 2007).

Through further literature review it was identified that teachers are one main cause for this, as they serve as the gatekeepers for ELL being referred for gifted identification (Harris et al., 2009). “As there are no inherent intellectual differences among people of different ethnicities, there should be an equal distribution of needs and exceptionalities throughout cultures” (Anguiano, 2003 p.33). Therefore, the number of identified gifted students should be in proportion to the cultural statistics of the school district, which is not the case, as seen in the data provided by the Colorado Department of Education (2015).

With the conceptual idea of change theory in the forefront and utilizing constructivist theory for learning and the zone of proximal development by Vygotsky, a
professional development and three PLCs were designed to capture the learning of preschool staff members in a school district located the Denver metropolitan area (Armstrong, 2015; Ghosh, 2014; University of Sydney, 2017). The three components utilized from the constructivist theory were endogenous, exogenous, and dialectical (Armstrong, 2015). These components were integrated into the research method to work with each staff member at their own zone of proximal development, their own level of learning (Ghosh, 2004).

The research method first took into account the information already known by the staff members and the environment in which they had worked and learned. This occurred with a presurvey, which addressed the endogenous and exogenous components (Armstrong, 2015). Next, the professional development and PLCs were created with high levels of interaction and discussion in order to continue to develop the dialectical component (Armstrong, 2015). The high level of conversation allowed the staff members to review the current research, thus anchoring their learning and providing ample time for discussion on the topic. This practice planned for transfer of knowledge, according to the Vygotsky design (Armstrong, 2015).

This chapter follows a chronological order and is reported in a descriptive narrative approach. The first section details the type of data collected. The next section concerns the data collection and analysis, both occurring in a chronological order as connected to each research question. The data and analysis of each data point are identified under each question, illustrated by tables and figures. This method allows the researcher to stay true to the convergent parallel mixed-methods approach by allowing each piece of data to be analyzed separately and then together (Creswell, 2014).
Data Collection Overview

The next few paragraphs will outline the types of data collected. Data collection began in August 2016 with a presurvey emailed to 45 preschool staff members (Appendix C). This survey collected demographic data of the staff members in order to gather understanding of the participants. The staff answered a question to grade themselves on their knowledge of a gifted ELL learner, and they also listed three to five characteristics of gifted students. The survey took the participant approximately 5 minutes to complete. The survey opened on August 23rd, 2016 and closed on August 25th, 2016.

The second data collection method was an exit ticket to gather understanding from each participant at the professional development opportunity on August 25th, 2016. The training was held at the district training room for all interested preschool staff members. As the training came to an end, after 4 hours of discussion, activities, and brainstorming, the staff members were all asked to complete an exit ticket. The exit ticket had the staff members answer questions about their learning, list three to five characteristics of an ELL GT learner, and identify an action item to take from the training to their practice in the classroom.

Exit tickets were collected from the three PLC meetings from a smaller group of staff members as data. In September, October, and November, PLC sessions were held with approximately five members in attendance, not including the facilitator/researcher. An audio recording was captured for each event and an exit ticket was collected at the end of the 90-minute session. The audio recordings were used for note taking by the researcher to help identify major themes of learning or misunderstandings.
The final data was collected from November 10th, 2016 to November 18th, 2016: the postsurvey sent out via e-mail to all preschool staff members. Again, demographics were captured in the beginning of the survey. The postsurvey, located in Appendix F, added a question from the presurvey to have participants click on the professional learning opportunities they attended. The remaining questions were the same as the presurvey. As data were collected, it was organized to respond to the research questions for this study. Through a mixed-method approach, both qualitative and quantitative data were collected to answer each question.

**Data Analysis**

The purpose of this study was to explain the impact of professional development on the referrals of ELL students for gifted and talented testing. A mixed methods approach was selected for this research to answer the three research questions. The research questions were:

1. What are preschool staff members’ understandings of the characteristics of ELL identified as GT?
2. Are PLCs effective in increasing preschool staff members’ understanding of the characteristics of gifted ELL students?
3. Does a change in staff members’ understanding lead to an increase in ELL students being referred for identification as GT?

The research was designed and data were collected utilizing a convergent parallel mixed-methods approach (Creswell, 2014). “In this approach, a researcher collects both quantitative and qualitative data, analyzes them separately, and then compares the results to see if the findings confirm or disconfirm each other” (Creswell, 2014, p. 219). The
quantitative data was collected in the pre- and postsurvey. The qualitative data was collected in open-ended questions on the pre- and postsurvey and on the exit tickets from the intervention sessions. The qualitative data procedure followed adapted Tesch’s Eight Steps in the coding process (Creswell, 2014): (a) read through all notes from one event to get an overall sense of the event, (b) read through one document at a time to comprehend the overall substance, (c) after all documents for one event are finished group the notes into categories, (d) create a list of categories and codes per category, (e) review categories and codes to combine any categories, (f) create a final list of topics, (g) assemble all data into categories/themes, and (h) review work and coding for accuracy. A blend of quantitative and qualitative data were collected, analyzed, and paired together to reach answers to the research questions posed. This section of the chapter will provide the three research questions and the data collected and analyzed to answer each question.

1. **What are preschool staff members’ understandings of the characteristics of ELL identified as GT?** Answering this question utilized several points of data. The first data collected for this question was the survey sent to all staff members in August and November. The presurvey and postsurvey collected data about the knowledge of characteristics of ELL students who are gifted. The next data point was the exit ticket from the intervention professional development in August 2016. In the next several pages the data is explained and analyzed in sections chronologically for this question: presurvey, professional development intervention, and postsurvey.

**Presurvey.** The preschool staff members took a presurvey in August on Qualtrics. This survey served as the baseline data and was closed before the intervention of professional development and PLCs began. The data collected for this question came
from several self-evaluation questions and an open-ended response having the staff list three to five characteristics of ELL GT preschool students. The presurvey was sent by the Instructional Specialist of Early Childhood via e-mail to all 2016–2017 preschool staff members; this equated to 45 staff members. The e-mail explained the study and requested their assistance (Appendix B). The survey had 24 responses, but only 21 completed the survey: three members stopped before the survey was complete and therefore the partial data were not utilized in the reporting and analysis. The response rate was 47%, which was the percentage of staff members who completed the survey. Demographic data was collected in the survey and was compared to current proportions of job titles for the district’s preschool staff for the current time. The data showed that 48% of teachers, 43% of group leaders, and 9% of paraprofessionals took the survey. This ratio is equivalent to the staff ratio of the district; therefore, the presurvey is considered a valid representation of the district preschool staff.

The presurvey asked the participants to grade their knowledge about characteristics for ELL preschool students who may be gifted. The survey had a drag option that displayed 13 different academic grades for a self-grading opportunity. The academic grades went from an A+ to and F. The answers for this question were coded for quantitative analysis. The grade options were: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, and F. This type of Likert scale, or ordinal level of measurement, assigned numbers to each grade selected (Frankfort-Nachmias & Leon-Guerrero, 2011). This type of measurement was chosen to reflect directly the past experiences of the staff members as the learner as seen in constructivist theory (Armstrong, 2015). Grades are a common component teachers work with and have worked with, and are therefore an appropriate
measuring tool based in their endogenous domain (Armstrong, 2015). The data are shown in Figure 3 for the presurvey.

In analyzing the presurvey data, it became apparent that the preschool staff members did not all have a level of understanding of their own knowledge on the characteristics. Per self-reporting, zero staff members rated themselves with a letter grade of an A. The highest grade awarded was a B+ and 28% of staff members graded themselves with the letter grade of B. Typically a letter grade of a C is considered average, and 33% of staff members graded themselves with average. Any grade below a C is typically considered below average, and 38% of respondents graded themselves with a D or F. As reported by the preschool staff, the majority of the staff members ranked themselves average or below average in the presurvey for their understanding of characteristics of an ELL student who may be gifted. Therefore, the first theme noted was a lack of understanding of characteristics.
Figure 3. Quantitative data from the presurvey regarding self-reported grade on characteristics of a GT ELL.

The self-reporting grade question on the survey allowed the respondents to quantitatively grade themselves on their understanding of characteristics of GT ELL students. The next part of the survey allowed the staff members to type in the characteristics that they knew about ELL students who are gifted. This data point allowed for a different measure on the same information. The data collected allowed for an open-ended response and allowed the participants to demonstrate their knowledge qualitatively, giving the researcher evidence toward their claim.

An open-ended question asked for the participants to type in three to five characteristics of a GT ELL preschool student. The responses were coded through descriptive statistics to assign a label to categories through nominal level of measurement (Frankfort-Nachmias & Leon-Guerrero, 2011). The legend was created with parallel
language to the first research question. The coding legend for this question was on a scale of 0–2. Zero (0) equated to the answer of no knowledge and was typed in as “none” or “none at all.” The rating of 1 equated to partial understanding with demonstration of one or two accurate characteristics as supported by the literature review. It could also be given if a participant listed several characteristics but only one or two were supported by the literature. The rating of 2 equated to a good understanding, listing a minimum of three accurate characteristics of GT students who are ELL (see Figure 4).

**Figure 4.** Data from the presurvey regarding coded understanding of characteristics of a GT ELL.

As an example, in reviewing the data, one respondent was coded 2 for demonstration of a good understanding of the characteristics. The staff member who responded listed “strong desire to learn in their language and English, quick grasp of new information, self-directed, take on leadership roles” as their answer. Another example
was a respondent only listed “creative” as an answer, therefore receiving a 1 for a partial answer.

A partial understanding code was given to seven or 33% of the respondents, with answers that were either incorrect or did not list a minimum of three characteristics. One respondent answered: “has personal interests way beyond the score of the other learners.” This received a rating of 1 since it was an accurate characteristic but the question asked for three to five characteristics. Another respondent listed: “maturity, language/vocabulary.” This was rated 1 because the answer only contained two of the three minimum. This coding mechanism allowed for the researcher to see growth toward a stronger understanding of the characteristics. Esquierdo and Arreguín-Anderson (2012) wrote about the importance of understanding the characteristics of an ELL student. Anguiano (2003) wrote that teachers need to understand the characteristics of ELL students and language acquisition, so they can learn how to program for these students and uncover the gifts that are masked by language and/or culture barriers. Therefore, a strong grasp of the characteristics was necessary to gauge, and a minimum of three denoted a strong grasp and demonstrated knowledge above guessing.

Thirteen of the 21 participants responded “none at the time” for the characteristics of ELL GT preschool students; that implies 62% of respondents. This data demonstrated that, prior to the intervention, over half of the respondents were not aware of the characteristics to look for in preschool ELL students to help identify giftedness. Figure 4 shows the coded responses from the open-ended question of the presurvey. In reviewing the answers that were coded 1 or 2, a general understanding of the characteristics, the only characteristic that appeared more than one time was the response of “behavior.” This
occurred in two of the responses. No other trends were noted when reviewing the responses. Table 9 provides the raw data responses from the presurvey.

**Table 9**

*Presurvey responses of known characteristics of ELL GT preschool students*

<table>
<thead>
<tr>
<th>Response Number</th>
<th>Answer on Presurvey</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None known at this time</td>
</tr>
<tr>
<td>2</td>
<td>Strong desire to learn in their language and English</td>
</tr>
<tr>
<td></td>
<td>Quick grasp of new information</td>
</tr>
<tr>
<td></td>
<td>Self-directed</td>
</tr>
<tr>
<td></td>
<td>Take on leadership roles</td>
</tr>
<tr>
<td>3</td>
<td>Quick learners</td>
</tr>
<tr>
<td></td>
<td>Students are able to help other students or even staff members</td>
</tr>
<tr>
<td></td>
<td>Students are able to understand in both languages</td>
</tr>
<tr>
<td>4</td>
<td>None known at this time</td>
</tr>
<tr>
<td>5</td>
<td>None at this time</td>
</tr>
<tr>
<td>6</td>
<td>Creative</td>
</tr>
<tr>
<td></td>
<td>Remind you that you already said that</td>
</tr>
<tr>
<td></td>
<td>knowledge of basic skills can be high</td>
</tr>
<tr>
<td>7</td>
<td>Gifted in one area or development such as art, writing, letter recognition, or math</td>
</tr>
<tr>
<td></td>
<td>Translation</td>
</tr>
<tr>
<td></td>
<td>Ability to pick up new concepts</td>
</tr>
<tr>
<td>8</td>
<td>None know at this time</td>
</tr>
<tr>
<td>9</td>
<td>Maturity, language and vocabulary,</td>
</tr>
<tr>
<td>10</td>
<td>Has personal interests way beyond the scope of the other learners.</td>
</tr>
<tr>
<td></td>
<td>High academic levels?</td>
</tr>
<tr>
<td></td>
<td>Not sure about others.</td>
</tr>
<tr>
<td>11</td>
<td>None known at this time</td>
</tr>
<tr>
<td>12</td>
<td>Behavior problem, independence, frustrated or bored</td>
</tr>
<tr>
<td>13</td>
<td>Sometimes it’s behavior, They ask for more information to go further, they get bored easily or they work independent.</td>
</tr>
<tr>
<td>14</td>
<td>None known at this time</td>
</tr>
<tr>
<td>15</td>
<td>None known at this time</td>
</tr>
<tr>
<td>16</td>
<td>None know at this time</td>
</tr>
<tr>
<td>17</td>
<td>None known at this time</td>
</tr>
<tr>
<td>18</td>
<td>None known at this time</td>
</tr>
<tr>
<td>19</td>
<td>None at this time</td>
</tr>
<tr>
<td>20</td>
<td>None</td>
</tr>
<tr>
<td>21</td>
<td>None known at this time</td>
</tr>
</tbody>
</table>

In the presurvey analysis of the quantitative measure and the qualitative measure, it was found that the preschool staff members were more apt to inflate their grade of
understanding versus being able to provide justification of knowledge. In coding the open-ended question, only one member provided an answer that equated to a score of 2, while 28% of staff members rated themselves with a grade of A or B. These same staff members were not able to provide justification of their knowledge. In comparison, 38% of staff members that responded by grading themselves with D or F, and almost double, 62% of the total respondents stated “none at this time” for listing characteristics, demonstrating the vast differences between assigning a grade and demonstrating knowledge. This data compared side by side showed an inflated level of knowledge of understanding that could lead to staff members not being as open to the education in the intervention.

In reviewing the quantitative and qualitative pieces of data, the first trend noted during the researcher’s analysis was a lack of knowledge or understanding by the staff member. Staff members demonstrated through the questions that some were aware of their lack of knowledge while others scored themselves as knowledgeable but were unable to provide the qualitative evidence of this. The findings from these data support the findings of Esquierdo and Arreguín-Anderson (2012) that educators tend to not understand the GT characteristics in ELL students. The raw data from the presurvey is located in Table 10. This data demonstrates the lack of a trend in position, years of service, grade and listed characteristics and demonstrates the inconsistency of self reported grades and coded answers.
### Table 10

**Data from the Staff from Presurvey**

<table>
<thead>
<tr>
<th>Q1 Position</th>
<th>Q2 Years worked</th>
<th>Q3 ELL referred</th>
<th>Q5 Grad e</th>
<th>List characteristics</th>
<th>Coded response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>0 (F)</td>
<td>None</td>
<td>None known at this time</td>
<td>0</td>
</tr>
<tr>
<td>Paraprofessional</td>
<td>2 to 4</td>
<td>0 (F)</td>
<td>None</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>Teacher</td>
<td>4 to 7</td>
<td>0 (F)</td>
<td>None</td>
<td>None known at this time</td>
<td>0</td>
</tr>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>0 (F)</td>
<td>None</td>
<td>None known at this time</td>
<td>0</td>
</tr>
<tr>
<td>Teacher</td>
<td>4 to 7</td>
<td>0 (B+)</td>
<td>None</td>
<td>None known at this time</td>
<td>0</td>
</tr>
<tr>
<td>Group Leader</td>
<td>8 or more</td>
<td>0 (D-)</td>
<td>None</td>
<td>None known at this time</td>
<td>0</td>
</tr>
<tr>
<td>Group Leader</td>
<td>8 or more</td>
<td>0 (F)</td>
<td>None</td>
<td>None known at this time</td>
<td>0</td>
</tr>
<tr>
<td>Teacher</td>
<td>4 to 7</td>
<td>0 (F)</td>
<td>None</td>
<td>Sometimes it’s Behavior, They ask for more information to go further, they get bored easily or they work independent.</td>
<td>0</td>
</tr>
<tr>
<td>Group Leader</td>
<td>4 to 7</td>
<td>1 (C+)</td>
<td>Behavior problem, independence, frustrated or bored</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Paraprofessional</td>
<td>4 to 7</td>
<td>0 (C)</td>
<td>None</td>
<td>Has personal interests way beyond the scope of the other learners. High academic levels?</td>
<td>1 only 2 / third not accurate</td>
</tr>
<tr>
<td>Group Leader</td>
<td>0-1</td>
<td>0 (B-)</td>
<td>None</td>
<td>Remind you that you already said that knowledge of basic skills can be high</td>
<td>0</td>
</tr>
<tr>
<td>Teacher</td>
<td>4 to 7</td>
<td>0 (C+)</td>
<td>Not sure about others.</td>
<td>1 - only 2 traits</td>
<td></td>
</tr>
<tr>
<td>Group Leader</td>
<td>2 to 4</td>
<td>0 (B+)</td>
<td>Maturity, language and vocabulary,</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>0 (C-)</td>
<td>none know at this time Gifted in one area or development such as art, writing, letter recognition, or math. Translation</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>0 (B)</td>
<td>Ability to pick up new concepts Creative</td>
<td>1 - only 2 traits</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>0 (C )</td>
<td>Remind you that you already said that knowledge of basic skills can be high</td>
<td>1 - not accurate</td>
<td></td>
</tr>
<tr>
<td>Group Leader</td>
<td>8 or more</td>
<td>0 (C )</td>
<td>None at this time</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Group Leader</td>
<td>8 or more</td>
<td>0 (C )</td>
<td>none known at this time Quick learners Students are able to help other students or even staff members</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Group Leader</td>
<td>8 or more</td>
<td>4 or more (B-)</td>
<td>Students are able to understand in both languages</td>
<td>1 - only 2 traits</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>0 (B-)</td>
<td>Strong desire to learn in their language and English Quick grasp of new information Self-directed</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Group Leader</td>
<td>8 or more</td>
<td>0 (F)</td>
<td>Take on leadership roles</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>0 (B+)</td>
<td>None known at this time</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

71
**Intervention.** On August 25th, 2016, 41 preschool staff members attended a professional development opportunity to learn about the characteristics of gifted students and characteristics of ELL students, and about which characteristics may overlap. The objective of the professional development that was posted for the staff was to develop knowledge around characteristics of gifted ELL preschool students. All staff members who would be working with preschool for 2016–2017 were invited to attend. The training took place at the district training room. It was started at 8:30 am and a light breakfast was offered. All staff members participated by choice and signed a consent form prior to the start of the training. The intervention was designed to have minimal lecture, in order to allow the attendees to participate in conversation the majority of the time, and thus learn as a team. Classroom teams were chosen to assist with team building and to provide a level of comfort to the staff members while discussing new material.

Staff members participated in an interactive and collaborative training to further their own understanding of the characteristics of gifted and second language learners. After a few ice breakers, the staff members began collaborative thinking with their classroom teams by compiling a list of characteristics of ELL (see Figure 5). Once the lists were compiled and hung on the wall, all the participants walked throughout the room and added check marks to denote a duplicate response from their group of a characteristic. This allowed the participants to have a visual understanding of the characteristics of ELL students. The characteristics were briefly discussed as a large group for clarity and understanding among the staff members.
Once the ELL characteristics were completed, the same groups began the discussion of a gifted learner. After 10 minutes of collaboration time, the facilitator stopped the groups and did a quick activity identifying the differences between a gifted learner and a high-achieving student. The groups went back to work with the new knowledge and edited and added information to their gifted characteristic list. Once classroom teams were completed they were directed to partner with another classroom group. The two groups came together and merged the lists to create one list of agreed characteristics for a gifted learner. The lists were hung on the wall for all participants to see them (see Figure 6). A brief time was given to the participants to view all the lists hung up.
After the gifted characteristics were completed, the group was asked to individually participate on the Venn diagram of ELL and GT learners. The learners individually added small pieces of paper listing a characteristic to a large Venn diagram on the wall. Through rich and in-depth discussion, the diagram was completed (see Figure 7). Together, the preschool staff members were able to see and reap the benefits of the knowledge that was within all of them.
After the Venn diagram was finished, the process of teacher referrals was discussed and the tools to identify students were reviewed with the participants. The researcher explained the literature review that states that teachers are often times considered the gatekeepers to gifted identification due to referrals (Ford & Grantham, 2003). The process was explained to help combat this fact. Referrals begin with observational data, and after three data points, are taken to the GT leader in the building. The connection between understanding the characteristics and the observational data piece was discussed and questions were answered to help teachers understand the process. The Venn diagram demonstrated the start of the understanding by the staff members to uncover the gifts of the ELL students in our district.

**Intervention exit tickets.** Exit tickets were collected at the end of the professional development and are available in Appendix E. These exit tickets asked for a learning takeaway that the staff member had learned from the professional development, as well as three to five characteristics of a gifted ELL preschool student. In analyzing the exit tickets from the staff members, a few trends were captured from the first question asking about their learning from the day. In reflecting on the learning from the day, the
following themes occurred the most frequently: difference between gifted and high-achieving, process for referring students for gifted testing, and being observant of the behaviors of students, and looking deeper into their behaviors and emotions. Thirty-three percent of exit tickets made mention of learning about the emotions or behaviors of gifted students.

The first theme of understanding the differences between a gifted learner and a high achiever was mentioned on the exit ticket by 40% of the participants. This activity was impactful and beneficial for the staff members. The activity of looking at the different characteristics implied a learning moment concerning preconceived notions of how a gifted student may act like in the classroom. This learning during the professional development led to a brief discussion about intensities, behaviors, and emotions.

Another learning experience derived from the exit tickets was the basic knowledge of how a referral works in the district and what pieces of evidence qualify preschool students in the district. Teachers remarked that they were surprised to learn that there was a process and that identification was possible before second grade. Seven exit tickets called special attention to this particular process.

Finally, the trend of becoming more observant of the students was found in several exit tickets. One ticket even reflected back to previous students and stated: “Thinking of ways I could have engaged past children had these been thoughts” (Ticket 11). This participant related the information learned and realized that if he/she had engaged students and been more observant the characteristics may have been noticed. Another participant stated that listening to students for the details and truly paying attention to the student is a tool that is easy to use and can provide a lot of data. A third
participant wrote, “Being more observant and paying attention to/digging deeper into small details I maybe otherwise would have overlooked” (Ticket 18). The participants demonstrated the understanding of observation as necessary.

For the second question on the exit ticket, list three to five characteristics, the same scoring method was used as the presurvey. Therefore, a score of 0–2 was assigned to each response: 0 for no understanding demonstrated, 1 for partial understanding demonstrated, and 2 for a good understanding demonstrated in the responses. Many of the responses on the exit ticket were detailed and listed more than three accurate characteristics. Table 11 shows examples of the responses of randomly selected exit tickets.

The presurvey served as a baseline for information on the understanding of characteristics by preschool staff members. After the intervention, the exit ticket information was compared to the data of the presurvey. Figure 7 shows a comparison between the data from the professional development and the presurvey data. The presurvey showed 13 participants (62% of responses) who answered “none” or “none known at this time” and, after the training, zero participants responded “none known at this time.” While the same number of partial understanding responses was seen both in the presurvey and in the postintervention exit ticket, it should be noted that the largest increase was in the coded rating of “good.” These are absolute numbers and, since less staff members participated in the survey than in the professional development opportunity, the data were represented in percentages. Figure 8 compares the response percentages from the professional development and the presurvey data regarding knowledge on characteristics of a gifted student.
Table 11

**Professional Development Exit Ticket Responses**

<table>
<thead>
<tr>
<th>Ticket</th>
<th>3–5 Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Contemplative, curious/inquisitive, advanced language in their first language</td>
</tr>
<tr>
<td>2</td>
<td>Behavior, language used, knowledge, receptiveness</td>
</tr>
<tr>
<td>3</td>
<td>Fast learners- may need 1–2 repetitions to learn skill/vocabulary; math or art skills may be high- not as impacted by language; sensitive, possibly very emotional or reactive; intense interest in some areas</td>
</tr>
<tr>
<td>4</td>
<td>ELL: shy, keep to themselves; ELL: Follow a group and what they do when they don’t understand directions; GT: Are in their own world and don’t mind being alone; GT: Get bored easily because they already know they subject</td>
</tr>
<tr>
<td>5</td>
<td>Thirst for knowledge, retains knowledge and expands thoughts, shares what knows (after time)</td>
</tr>
<tr>
<td>6</td>
<td>They follow routines with the group, model peers, they tend to be quiet</td>
</tr>
<tr>
<td>7</td>
<td>Bored, creative, eager, curious</td>
</tr>
<tr>
<td>8</td>
<td>Picks up second language rapidly, sense of humor in primary language that may be difficult for others to understand, asks a lot of questions, curious</td>
</tr>
<tr>
<td>9</td>
<td>Sensitivity in helping peers</td>
</tr>
<tr>
<td>10</td>
<td>ability to learn a new language, open endedness ability / creativity</td>
</tr>
<tr>
<td>11</td>
<td>Soaks up information, eager to learn (on own terms), may have behaviors when needs aren’t met, informative</td>
</tr>
<tr>
<td>12</td>
<td>Inquisitive, informative, opinionated</td>
</tr>
<tr>
<td>13</td>
<td>Easily bored, knowledgeable, thinks outside the box, acts out because of either frustration or bored, eager to learn new things</td>
</tr>
<tr>
<td>14</td>
<td>May play with peers same, not engaged</td>
</tr>
<tr>
<td>15</td>
<td>Motivated, inquisitive, informative, creative</td>
</tr>
<tr>
<td>16</td>
<td>Bright, check out, curious</td>
</tr>
<tr>
<td>17</td>
<td>Overachiever, ask questions (overabundance), curious, overelaborate, shares information</td>
</tr>
<tr>
<td>18</td>
<td>Quiet, behaviors- acting out, asks lots of questions</td>
</tr>
<tr>
<td>19</td>
<td>Observant, increased behavior or movement, hesitant or anxious about failure</td>
</tr>
<tr>
<td>20</td>
<td>mentally, physically involved; highly curious, analytical, answers all the questions</td>
</tr>
<tr>
<td>21</td>
<td>Asks questions, eager to learn, can be quiet observers or very verbal, knowledgeable</td>
</tr>
<tr>
<td>22</td>
<td>Shows strong feelings and emotions, discusses in detail, very curious</td>
</tr>
<tr>
<td>23</td>
<td>Creative, bored, asks a lot of questions</td>
</tr>
<tr>
<td>24</td>
<td>Observer, reserved, anxious, eager learner</td>
</tr>
<tr>
<td>25</td>
<td>Asks questions, not tell answers</td>
</tr>
<tr>
<td>26</td>
<td>Observant, curious, hands on learner</td>
</tr>
<tr>
<td>27</td>
<td>Eager, observant, inquisitive</td>
</tr>
<tr>
<td>28</td>
<td>Mimic peers, observant, hands on</td>
</tr>
<tr>
<td>29</td>
<td>Curious, eager, humorous, they are observant</td>
</tr>
<tr>
<td>30</td>
<td>Sense of humor, asks questions, eager to learn</td>
</tr>
<tr>
<td>31</td>
<td>Behavior, asks a lot of questions, moves around a lot- bored easily, emotional</td>
</tr>
</tbody>
</table>

Curious, behavior, communication in different ways

*continued...*
<table>
<thead>
<tr>
<th>Ticket</th>
<th>3–5 Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>Thinks outside the box, curious, impatient, doesn’t pay attention but tests well, behavior problems</td>
</tr>
<tr>
<td>33</td>
<td>Curious, behaviors, vocabulary</td>
</tr>
<tr>
<td>34</td>
<td>Behavior, asking questions, curious</td>
</tr>
<tr>
<td>35</td>
<td>Thinks outside the box, very curious, may sort things in order by visuals</td>
</tr>
<tr>
<td>36</td>
<td>Has lots of knowledge on specific topics, thinks outside the box, asks lots of questions</td>
</tr>
<tr>
<td>37</td>
<td>Sensitive, high vocabulary, might have one area that is high such as math, high vocabulary</td>
</tr>
<tr>
<td>38</td>
<td>Visual tools- ELLS, behaviors- both good and bad- BOTH, wants to challenge people or be challenged</td>
</tr>
<tr>
<td>39</td>
<td>Eager to explore, observant, quiet or talkative, adult oriented, challenging</td>
</tr>
<tr>
<td>40</td>
<td>Highly curious, has wild and silly ideas</td>
</tr>
</tbody>
</table>

![Figure 8. Percentages of responses for understanding characteristics.](image)

An extreme difference was noted in analyzing the data from the presurvey and the professional development exit ticket. In the exit tickets from the professional development, the answers were robust and detailed, as seen in Table 11. Many respondents listed five characteristics in contrast to the presurvey, where the single
respondent with a good level of understanding only provided three characteristics. These are some examples of the characteristics listed on the exit ticket that were not mentioned in the presurvey: observer, sense of humor in primary language, quick to grasp of hands on activities, and mimics language in context. These characteristics provide a much more in-depth understanding of the gifted learner who is ELL, and they provide information to the staff members about characteristics to watch for in the classroom to help uncover the gifts.

**Postsurvey.** After almost 3 months and several different interventions, the survey was sent out again via e-mail. The Instructional Specialists of Early Childhood sent the e-mail to all preschool staff members with a link to the postsurvey. The survey opened on November 9th, 2016 and it closed on November 18th, 2016. The postsurvey asked the same questions as the presurvey, but had two additional questions to gather demographics on attendance of the professional development and/or the PLC events and participation on the presurvey. Each event had its own button to click to signify attendance.

Twenty-two staff members started the postsurvey; however, five members did not complete it or click the agree statement on the consent disclosure. Therefore, for most questions only 17 responses were captured, and on a few questions respondents did not answer. This implies a lower number than the one obtained in the presurvey. Ten teachers responded the postsurvey, or 58% of the respondents. It represents a higher percentage of teachers than the ones who are currently on staff with the preschool. Table 12 displays the data on the positions and number of responses by position. The current distribution of the preschool staff has 45% of the staff members as teachers. The distribution of
responses had the teacher response at 58%, which is higher than the proportion of teachers to classified staff.

Table 12

*Data on the Staff Distribution from Postsurvey Answers*

<table>
<thead>
<tr>
<th>Position</th>
<th>Percentage of Respondents</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>58.82%</td>
<td>10</td>
</tr>
<tr>
<td>Group Leader</td>
<td>35.29%</td>
<td>6</td>
</tr>
<tr>
<td>Paraprofessional</td>
<td>5.88%</td>
<td>1</td>
</tr>
<tr>
<td>One on one paraprofessional</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

The next two questions gathered: (a) demographic information on completing the survey, and (b) attendance to the intervention activities. The primary purpose of these demographic questions were to allow the researcher to analyze the growth or change in understanding from the presurvey to the postsurvey. The first question showed that 47% of the postsurvey respondents had taken the presurvey, 47% of the respondents did not remember, and the remaining (corresponding just to one person) responded that they had not taken the presurvey. These results made it impossible to compare the growth of both surveys. Since over half of the respondents either had not take the presurvey or did not remember if they took the survey the comparison would not be an accurate data set. Therefore the data of the presurvey and the postsurvey will be presented in isolation of the presurvey first.

The second additional demographic question showed that all 17 members checked at least one event. The data showed that 88% of the survey respondents had attended the August professional development, which implies that two of the respondents had not attended the all-staff training in August. The next item noted was that six respondents
marked attendance to the September PLC on identification characteristics; however, as noted in the PLC data, only five members were in attendance for the first PLC. Therefore, the reliability of the survey data may not be accurate regarding the demographics data.

Table 13 shows the percentage of attendance for each event considering the answers of the participants on the survey.

Table 13

Percentages of Attendance to Each Event, Extracted from Survey Answers

<table>
<thead>
<tr>
<th>Response Choices (Event)</th>
<th>%</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>August preschool professional development on characteristics of gifted ELL preschool students</td>
<td>88.24%</td>
<td>15</td>
</tr>
<tr>
<td>September professional learning community meeting-identification characteristics</td>
<td>35.29%</td>
<td>6</td>
</tr>
<tr>
<td>October professional learning community meeting- second language acquisition</td>
<td>17.65%</td>
<td>3</td>
</tr>
<tr>
<td>November professional learning community meeting-giftedness in culturally and linguistically diverse students</td>
<td>5.88%</td>
<td>1</td>
</tr>
<tr>
<td>Total number of surveys answered</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

The quantitative measure of the survey involved the respondents self-grading on their knowledge of the characteristics of ELL students who may be gifted. The respondents had a sliding bar that displayed different academic letter grades for them to grade themselves. Sixteen of the 17 respondents completed this question. The results are displayed in Figure 9. All sixteen respondents graded themselves with a grade of average (C) to above average, with the highest grade being an A, as responded by one staff member.

The next question analyzed on the postsurvey was qualitative and asked for staff members to type in three to five characteristics on an ELL student who may be gifted. The responses were coded with the same coding system from the presurvey and the exit tickets from the professional development. The coding system gave a score of 2 for a
good understanding with a minimum of three characteristics listed that are supported by the literature. A code of partial understanding was given a score of 1 for responses that had some incorrect characteristics or less than three correct characteristics. A code of 0 was given to responses that were incorrect or if the respondent stated “none known at this time.” This question was answered by fifteen of the seventeen respondents. The results in Figure 10 display the coded responses from the survey. Ten of the respondents had coded responses that demonstrated a good understanding of the characteristics of an ELL student who may be gifted. Only one respondent stated “none at this time” on the postsurvey to demonstrate no understanding.

**Figure 9.** Quantitative data from postsurvey on self-reported grade on characteristics of a GT ELL.
The responses that were coded were noted to have detail and several characteristics listed. Many of the responses from the postsurvey had more than three characteristics listed. Table 14 provides all the responses that were listed in the postsurvey. A table in appendix J provides the raw data from the survey with the positions, events attended, self reported grade and characteristics. The staff was still leery to give an A even when the evidence was cited. There were several answers that were coded with a two and the staff members still gave themselves a C. However, one noted factor was that overall the grades were much more in line with the qualitative data provided. Some staff still gave an average grade but provided a high quality answer. The trend that self grading does not accurately match the evidence provided was further seen through this table.
Table 14

*Responses Regarding ELL and GT Characteristics from Postsurvey*

<table>
<thead>
<tr>
<th>Response Exit Ticket Number</th>
<th>Answer on the Postsurvey</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Advanced vocabulary, they ask more questions, sometimes behavior, they get bored easily</td>
</tr>
<tr>
<td>2</td>
<td>1. Can find new and unusual ways to see things or use things. 2. Can seem high energy or be a disruption if he/she already knows the material. 3. Learns material rather quickly. 4. Picks up on new vocabulary quickly and uses it correctly.</td>
</tr>
<tr>
<td>3</td>
<td>None at this time</td>
</tr>
<tr>
<td>4</td>
<td>Gravitating towards younger students, gifts in one or more areas of development/interest, gift in one or more areas of development / interest</td>
</tr>
<tr>
<td>5</td>
<td>Observant and detailed about everything</td>
</tr>
<tr>
<td>6</td>
<td>Always responding to questions with the correct answers has extended knowledge on various subjects. Able to read most preschool books word for word. Emotional can cry easily.</td>
</tr>
<tr>
<td>9</td>
<td>Quick language acquisition, can think in more than one language, can look at situations from more than one perspective, is independent, has a high level sense of humor</td>
</tr>
<tr>
<td>10</td>
<td>Highly curious, elaborates, shows strong feelings and opinions</td>
</tr>
<tr>
<td>11</td>
<td>Understands very little English, cultural conflicts or understanding speaks in one to two word phrases</td>
</tr>
<tr>
<td>12</td>
<td>Curious, has an intense interest, is persistent, motivates, analyzes problems</td>
</tr>
<tr>
<td>13</td>
<td>Ability to problem solve using a variety of materials. Using a variety of methods to communicate effectively. Beginning to show interest and ability in reading text</td>
</tr>
<tr>
<td>14</td>
<td>Fast learner, emotionally sensitive, inquisitive</td>
</tr>
<tr>
<td>15</td>
<td>Quiet, knows answers, highly curious</td>
</tr>
</tbody>
</table>
Comparison and analysis. The first data point compared was the amount of staff members responding to the survey. The first finding in the comparison was that less staff members took the postsurvey in comparison to the presurvey. The population of staff members was represented in both surveys.

The second component analyzed was the amount of years working in preschool. Over 50% of the respondents, both in the presurvey and in the postsurvey, had 8 years of experience or more in preschool. Of respondents, 57% (a total of 12) in the presurvey and 52% of the respondents (a total of 9) in the postsurvey reported more than 8 years of experience. Twenty-eight percent of the respondents in the presurvey had 4–7 years of experience, and in the postsurvey this percentage was 17%. Nine percent of the respondents in the presurvey had two to four years of experience, and in the postsurvey this percentage was 25%. Only one respondent had 0–1 year of experience in the preschool classroom in both the presurvey and the postsurvey. In looking at the data of the characteristics of a second language learner who may be gifted, it is evident that experience alone will not increase the understanding of characteristics and an intervention is necessary for growth and learning.

The third component analyzed was the self-grading question from the presurvey and the postsurvey. The data is Figure 11, where absolute numbers are shown. As a whole, the level of self-reported grades went up from the presurvey to the postsurvey, which implies a little less than 3 months elapsed time. In the postsurvey, the lowest grade reported was a C (one person), while the lowest grade in the presurvey was an F (seven people). In looking at the data it is evident that, prior to any intervention, the self-reported
grades were much lower in understanding the characteristics of an ELL student who may be gifted. While there was evidence of inflated grades from the presurvey, the next component to be analyzed and compared is the qualitative data.

Figure 11. Comparison between presurvey and postsurvey raw data on self-reported grade on characteristics of a GT ELL.

The fourth component of the analysis was the open-ended question from the respondents, who were asked for three to five characteristics of an ELL student who may be gifted. This piece of data was collected three times: presurvey, post-intervention exit ticket, and postsurvey. While some of the people overlapped with all three data pieces, this involved less than 15 members. This data piece is compared in Figure 12, which displays the raw data from the presurvey to the postsurvey. While the numbers of participants vary, it is evident that the level of understanding greatly improved in the less than 3
months of the study. The next data piece is comparing all three collections in percentages to demonstrate the overall growth of understanding of the characteristics. This data is represented in Figure 13 and shows the percentages of coded open-ended questions from the presurvey, intervention exit ticket, and postsurvey. This data piece has a strong relationship to the increase in knowledge through actual written characteristics. While the self-graded score provided the researcher with the staff members’ perception of their knowledge, the open-ended questions provided a qualitative piece that can be coded for understanding. This data allowed for the researcher to understand the level of knowledge gained through the interventions.

![Figure 12. Comparison of coded responses regarding the understanding of characteristics of gifted students from presurvey and postsurvey.](image-url)
In summary, the level of understanding, as measured by an open-ended question, of the characteristics of ELL students that are GT was minimal prior to the research project. Through the open-ended question on the presurvey, 13 of the 21 respondents had no characteristics listed. Through professional development and engaging in dialectical conversation the ability to provide characteristics increased (Armstrong, 2015). The post-training exit ticket that asked the same question had zero members list no characteristics, therefore an increase in knowledge. Three months later the postsurvey was distributed and some level of knowledge remained. All participants of the postsurvey could list some characteristics on the open-ended question. This finding further demonstrated the need for conversation to transfer learning, as researched in the constructivist learning theory (Learning Theories, 2015). The self-perception, as measured by a Likert scale, also
demonstrated an increase in understanding of the characteristics of an ELL student that may be gifted. The grades the staff members assigned themselves increased from 29% of staff members assigning a self-reported grade of B or higher to 59% assigning themselves a grade of B or higher 3 months later. As the scores increased it became clearer that the staff was getting closer to uncovering the gifts in ELL preschool students.

2. Are PLCs effective in increasing the preschool staff members’ understanding of the characteristics of gifted ELL students? Professional learning communities represent an ongoing group of members who learn together about a topic of interest, while a professional development is a one-time training on a topic. This study had three PLC sessions of focused learning on three topics: gifted identification, second language acquisition, and giftedness in ELL. These topics were chosen prior to participants signing up and were advertised for all preschool staff members to participate in. The PLCs took place on Wednesday mornings; a day when preschool has no students and which is set aside for planning, special education meetings, and professional development. The sessions were advertised through e-mails and flyers given out at the professional development. The sessions were optional and all members signed a consent form.

The PLC meetings were 90 minutes in length. The readings were sent to the participants 1 week prior to the session for reading beforehand. The PLC was open to certified and classified staff members of the district preschool program. Five staff members signed up for the learning opportunity: four of them were teachers (3 from building A and 1 from Building B) and one of them was the Instructional Specialist of preschool/community partner. The members of the PLC remained consistent through the
three months. Each PLC was audio recorded for note taking purposes, only highlights were noted for the researcher to analyze. This process allowed for the researcher to actively engage as a facilitator and refrain from taking detailed notes to allow for conversation to flow more naturally. The recordings were listened to several times and comments were typed up to be reviewed for learning trends and understandings. Names or schools were not used in the notes from the audio tape, each participant was given a number in the order they spoke for each event. Exit tickets were also given for each PLC and were guaranteed anonymity for the participants. They were collected and coded for trends as well, and they were anonymous. This set up provided confidentiality for the members, but also made the ability to track each member’s growth impossible. The goal was to allow the teachers to be as open as possible in the sharing of ideas and frustrations. 

The first PLC topic was on identifying the characteristics in gifted learners. It was held on September 28th, 2016 at the district learning center and all five members were present. A chapter from the book *Identifying Gifted Students: A Step by Step Guide* by Johnsen (2005) was used as a foundation for discussion for the PLC. This chapter explains the characteristics organized by the federal definition labels. These labels are: general intellectual ability, specific academic field, artistic area, leadership, and affective (Johnsen, 2005). Each of the sections provides several characteristics and has cited research for the characteristics.

As the PLC team reviewed the general intellectual ability and the specific academic ability, the shift in their thinking started to occur. One member stated, “not everyone is trying to be naughty” when the discussion was on behavior and how it can demonstrate itself in preschool children. Toward the end of this section, one member
stated, “we need to change our behaviors to help potential.” This allowed freedom for several teachers to open up more and to realize that the true nature of a learning community was to discuss past practices and to identify what can be added and changed in current practices based off the learning. The conversation was more open and lively after this comment.

During the artistic giftedness discussion, all teachers took part in the conversation and began to express remembrance of past students and practical changes. Several times, the participants would link the creative area section of specific academics to the artistic ability section. One member stated, “We have lesson plans for group projects, zoo animals for example. We can allow for them to create sculptures and observe their creativity.” This allowed for other teachers to share ideas. One recalled a previous student who was always at the art center. As this teacher recalled the student from the previous year, she lamented that she should have put out more supplies and engaged him in more conversations about his work. This sparked a conversation where four of the five members began remembering times when students would gravitate toward the creative center and they would try to encourage the students to try different tasks or get frustrated when the child would use too many supplies. This made the group discuss the natural tendencies of teachers to feel that it is important to push students to try different things and to play with different students. As the section began to wrap up one member stated, “What I like about this GT stuff is that it is not extra work, but being observant and questioning the students.” This was met with agreement from the members of the group.

As the first hour came to a close, the group briefly discussed leadership and affective needs of the gifted learner. One member was surprised to have read about
sensitivities and emotions, stating that she had always linked those characteristics only to special education students. The group was intrigued by this concept that these characteristics were in gifted learners. The facilitator took time to explain about the emotions and sensitivities that can be seen in gifted learners. The session ended with the teachers laughing about different jokes the students have told them in the past and how often times the teachers would dismiss the sense of humor, but in looking back that humor should have clued them into something more based on the literature read for the first PLC.

At the end of the PLC, each participant was asked to complete an exit ticket, which asked four questions. The first question asked the participants to list one new learning item from the session. The responses from the five exit tickets were: sensitivity, provide opportunities, allow more flexibility, be open minded, and what to look for in different areas. The second question asked the participants to describe a new area that was learned about giftedness through the PLC. The answers were: two members stated leadership, two members stated artistic/creativity, and one member stated behaviors. These two questions demonstrate the new learning that took place during the PLC and the further characteristics that were learned, above and beyond, from the professional development intervention from the previous month. The participants reflected on more esoteric identification categories in giftedness, thus allowing for the understanding to move beyond academics for identification and referral.

The third question had the participants reflect on any actions taken since the August professional development. Three of the participants noted observing their students for GT qualities. Two participants put a line through the answer section noting
that no actions had been taken in their teaching practice after the August professional
development. The fourth final question on the exit ticket asked for one action item that
would be taken as a result from the learning in the PLC. All members responded with
providing time for students or observing students, demonstrating the shift in their
thinking from the day.

After reviewing the recording of the PLC session and the exit tickets, a common
theme occurred within the group: a shift in thinking. All of the participants were
genuinely surprised to learn about the characteristics and about easy ways to observe
these characteristics of a gifted learner in the classroom. Many teachers began to realize
the importance of allowing for time to listen to the students and to ask the students
questions when they are playing at centers. Shifting the mindset from reactive to
proactive, from documenting negative behaviors to analyzing the behaviors, and from
ignoring free time to truly observing the students during free time, allowed for the
teachers to truly dive into the literature and work toward taking action. The teachers
began to understand their ability to use the knowledge learned to look at and evaluate
students on a different level. This took many participants by surprise and even caused
some emotional distress in regards to past students. Some participants reflected on past
practices and realized they may have missed key characteristics on past students. This
saddened a few teachers as they noticed the traits demonstrated. During the first PLC, the
participants rarely reflected on current students, instead relying on past memories of
students they had taught before.

The second PLC took place on October 19th, 2016, which addressed the topic of
second language acquisition. The participants read Chapter 1 of the book *Identifying and*
Serving Culturally and Linguistically Diverse Gifted Students (Lewis et al., 2012). The chapter listed nine principles of second language acquisition:

Principle 1: Domains of Language.
Principle 4: Context-Embedded / Context-Reduced Language and Cognitively Demanding/Undemanding Tasks.
Principle 5: Input Hypothesis.
Principle 6: Affective Filter Hypothesis.
Principle 7: Language Transfer Theory.
Principle 8: Contexts of Second Language Acquisition.

One PLC member was sick and sent an e-mail expressing her utter disappointment in missing the learning community and the opportunity to learn more in order to help her students. Four members (from building A) were in attendance and the absent member was from Building B. As the PLC began, the teachers were distracted and chatty about classroom activities and materials. The PLC got off to a late start as one teacher was discussing the success of having a group leader who speaks Spanish and who was able to lead the conferences that were held the week prior.

As the facilitator started to get the group together, discussion began with the understanding of the principles of learning a second language. The first principle discussed was the difference between expressive and receptive skills (Lewis et al., 2012). As the discussion continued one member commented, “it must be so hard for them,” in reference to a student coming to class and knowing very little English and being expected to perform. From this comment, the topics of fear and the characteristics of how this is demonstrated, and the coping skills seen in students were discussed.
Further discussion took place as the group moved to the second principle and the brainstorming from the teachers started as the stages were discussed. The second principle discussed the five stages of language acquisition, with the first stage being pre-production and the final stage being advanced fluency (Lewis et al., 2012). As different stages were introduced, teachers found quick connections to ways to make the ideas applicable in the classroom. One example was a comment from a teacher about creating pictures on a specialized computer program in regards to helping the students with vocabulary. The teachers brainstormed ways to have verbal journals daily and the importance of time to think quietly for the second language learners to process the question.

As the period of language acquisition was discussed, the teachers began to understand the silent period, seen in the beginning stages, a little more and spent a few minutes working through ideas on how to allow students to demonstrate knowledge without speaking English (Lewis et al., 2012). The ideas included utilizing vocabulary cards, drawings, or math pieces to help students demonstrate knowledge.

The fourth and fifth principles were discussed together in regards to open-ended questions and vocabulary. The fourth principle reviewed academic tasks that may be cognitively demand for students versus activities that may be less demanding Lewis et al., 2012). The fifth principle discussed the ability to comprehend through use of background knowledge, context and environmental cues (Lewis et al., 2012). Before the entire section could be reviewed, the teachers began brainstorming ideas on how to make this possible in the classroom. Ideas for the dialogical reading group were discussed and strategies to help the group leaders ask higher level questions were brainstormed. The
group discussed vocabulary cards and the different models to introduce vocabulary. One model discussed in the book was the Frayer model and this idea sparked great interest, conversation, and excitement among the team (Lewis et al., 2012).

As the first hour came to a close, the last few principles were discussed in more generic terms. The discussions were brief and surface-level, due to time. Since conversation had become more limited, the facilitator handed out the exit ticket 70 minutes into the session and gave time for the teachers to complete the exit ticket. The four members who attended completed an exit ticket at the end of the session. The first question on the exit ticket was about a new learning as a result from the PLC. In reviewing the exit tickets, two of the four members stated the Frayer model, one member stated the need to be present and observe the students, and the fourth member stated remembering the stages an ELL student goes through (Lewis et al., 2012). The second question asked the teachers to list which graphic in the chapter connected with them the most. The chapter provided four graphic models and one chart (Lewis et al., 2012). One member stated that “the Prism model and how it ties the home language with the school language in the different domains is a good reminder of the complexities of learning a second language” on her exit ticket The Prism model from Collier and Thomas provided a visual model of language acquisition at school (Lewis et al., 2012). Two members stated the chart that summarized the principles and provided instructional strategies for the principles to be managed in the classroom. The fourth member connected with the Cummins graphic that provided a visual continuum for the cognitively demanding tasks to the cognitively undemanding tasks for second language learners (Lewis et al., 2012). The final question on the exit ticket asked the participants to write down one action they
would take from the PLC learning. Three of the four tickets stated working with vocabulary and the Frayer model and one ticket stated the desire to take the learning to a staff wide project to implement (Lewis et al., 2012).

The overall theme from the notes taken from the audio recording and the exit tickets was the need to take action and change now. This theme came through several times from the participants, as well as how recognizing giftedness is not about planning more work or even different work, but about truly taking the time to stop and observe the second language learners and their actions. One area that became clear for all PLC members was that language does not need to happen to demonstrate knowledge or understanding. On several occasions, the PLC members brainstormed ways to incorporate ideas to enhance the thinking of students. This level of excitement demonstrated the understanding and desire to change their actions and to take their learning into the classrooms to begin to make a difference for the ELL students.

The second PLC was filled with excitement from the teachers. The overall thoughts went from a negative perspective to a more enlightened and positive vibe. The chapter provided concrete examples for the teachers to use in the classroom and this provided the teachers with tools that were understood by them. The overarching theme was inspiration to change for students. A deeper understanding for the language acquisition helped and seeing the BICS and CALP for a second time brought forth the learning components of the constructivist theory of experience and conversation (Armstrong, 2015; Lewis et al., 2012).

The third PLC was scheduled for November 9th, 2016 at 10:00 a.m. One member was not able to attend (from building A) due to a special education meeting that could not
get rescheduled. There were four members in attendance and the PLC occurred at the district learning center. This third PLC covered Chapter 2 from the book Identifying and Serving Culturally and Linguistically Diverse Gifted Students (Lewis et al., 2012). The term culturally and linguistically diverse is referred to as CLD. The chapter was titled “Giftedness in the CLD student” and focused on eight principles in which teachers need to build competence when identifying gifted students who are also language learners:

Principle 4: Creative and Critical Thinking.
Principle 5: Autonomous Learner Model.
Principle 7: Differentiated Instruction.
Principle 8: Depth and Complexity. (Lewis et al., 2012, pp. 25–32)

The PLC started late. The facilitator began the session asking if there was anything they would like to share from the reading that caught their attention or anything that was tried. After several moments of silence, one member finally spoke up to explain that following the last PLC, she began to put out the introduced vocabulary cards and she was surprised that some students were using the cards during free time and a few students were practicing writing the words. After the member shared her experience, the facilitator asked if anyone else had anything to share, but no one else added anything.

The team was very quiet on the PLC date and not very talkative about the chapter. The team seemed distracted and the facilitator needed to do much of the talking. The participants struggled with connecting to the text provided during this week. When asked to share a connection made with the text or something they remembered during reading, no one responded. The text did not seem to answer the questions that the
members were wrestling with. One member even stated her frustration with a comment in the beginning: “What were the indicators? I need more understanding of what am I going to see? It is such new learning that it has not stuck yet, what were the indicators? Was it just observation?”

As the group went through the first three principles, no one had comments, questions or connections to the material. As Principle 4 was introduced on creative and critical thinking, a few comments were made about the discussion at the last PLC meeting in regards to the Frayer model and how it could be used in the classroom and the questioning that could happen during the dialogical reading group (Lewis et al., 2012). As Principle 5 was discussed, a couple of comments were made about the vocabulary cards mentioned in the previous PLC, but it was all review from the PLC 2 session. The discussion really began when Principle 7 was reviewed. The discussion on differentiation led to the members expressing concern and feelings of paralysis of trying something new in the classroom and not being sure what to look for in the classroom for giftedness. One member stated, “I am not quite sure what to look for. Was that gifted or not gifted? Is it just from their environment?” Another member was talking about how important the observation work was, but then stated, “I just don’t know what to look for!” The third member started to discuss a particular student: “I have one [student] in my afternoon class that seems to know everything—he knows about giraffes having purple tongues—but I can’t tell if he is just higher or maybe his parents take him to the zoo. How do you determine if he is gifted or is it his environment?”

As the discussion slowed down, the final principle was discussed and was met with little comment from the group. The meeting began to wrap up and discussion on
next steps became the focus. The teachers requested the ability to work on something that would go directly to their classroom to help them know what they were looking for with gifted characteristics. Teachers requested transfer activities and still felt as though they were not sure where to start or what to do to see the giftedness. The teachers voiced their concern that they did not understand enough and did not truly know enough to feel comfortable referring students.

As the PLC ended, the exit tickets were passed out to the teachers. Since the discussion on next steps had just occurred, the facilitator asked the teachers to write what next steps they would like to see on the back of the exit ticket. The front of the exit ticket requested that each team member write down which principle connected the most with them. Three of the four members listed Principle 7: differentiation. One team member wrote, “Working on the curriculum frameworks for preschool over summer and my CLD courses has me thinking a lot about differentiation. How can I put it into action?” Another member asked other hypothetical questions on the exit ticket: “How do we meet students’ needs? How are we assessing and knowing what kids already know and don’t know?”

The teachers were also asked to record one new learning item from the PLC. The members had a wide variety of responses from personal notes to assessment, but none related to the chapter of the book that was assigned or the direct discussion. For example, one stated, “check my calendar twice.”

The need for transfer and action became apparent on the PLC day through dialogue and the exit ticket. In previous settings, the teachers were willing to share ideas and talk, however, during the third PLC their frustration became apparent with comments like, “I still don’t understand how we should know if they are gifted!” The overarching
theme from the audio recording and the exit tickets was the need for scaffold guidance for identification. As the teachers learned more, they seemed to be less likely to be confident in referring students for testing. The teachers expressed great concern in the third PLC that they were not exactly sure what a gifted student looked like.

**Analysis.** In reviewing the themes as the PLC progressed, the staff members became more aware of the characteristics and questioned the action of the students more, but became less likely to acknowledge this was due to giftedness. The teachers provided more reasons why students may have had knowledge or questioned the items the students may have been exposed to. In the beginning of the PLC cycle, teachers remembered past students fondly, but as the months went by the conversation began to focus on current students and teachers were less likely to commit to the possibility the characteristics might be pointing toward a gifted child.

The first theme noted was a shift in thinking, the second PLC theme was to take action, and the third PLC theme was the need for transfer of the knowledge to direct work in the classroom. As the teachers became more aware of the topic they became less likely to credit current students with the traits. The original shift in thinking promoted teachers to be more aware, however as time progressed the teachers would bring forth characteristics, demonstrating they were more aware, but would deflect the characteristics with other concerns or reasons why what they were seeing may not have been a gifted trait. As teachers became more engaged in making a change, they would take small steps but would not fully commit. One example would be after PLC 2 teachers left excited to try out new vocabulary skills but, according to the exit tickets, only one attempted anything new—to keep the vocabulary cards out in the open for the students. As the third
PLC ended, the teachers voiced the need for observations to help see the traits discussed and time to create the ideas read about.

In the data from the survey concerning the characteristics of the staff members who responded with attending the PLC, there was no greater level of understanding than any other answer. The teachers were more aware of the need for observation and the need to change their thinking in response to the characteristics. As the PLCs continued, the conversation became more practical for application in the classroom to capture the characteristics in the students, therefore the PLC was effective in raising awareness and the desire to move on the information.

In summary, the three PLC meetings had a different focus planned for each meeting to assist teachers in engaging in new material and conversation to assist in extending the learning (Armstrong, 2015). The first PLC meeting discussed characteristics of a gifted learner and the staff members had an overall theme of a change in thinking. The second PLC covered the topic of second language acquisition and had an overall theme of needing to make a change in instructional strategies. The third PLC covered the material of ELL students that may be gifted. The overall theme for this session was frustration in actualizing on the material learned. As the PLC sessions were wrapping up, the researcher noted that teachers were stating more frustration in November on truly understanding and feeling comfortable noticing the characteristics. In researching Vygotsky, one conclusion was the lack of transference of knowledge (Warford, 2010). Warford (2010) wrote that a blend of scientific knowledge and field-based knowledge was required for transfer. The PLC was set up with the scientific data
and the conversational component but lacked the transfer for the teachers to actualize their knowledge (Warford, 2010).

Another factor to consider is the amount of time the interventions took place. The material was new to the staff members and only interacted with the information for three months. Fullan (1994) wrote, “The capacity of mastery is another crucial ingredient. People must behave their way into new ideas and skills, not just think their way into them” (p. 26). This supports the need for time and transference to see a change in behavior.

One limitation of the PLC design, as noted further in that chapter as well, was that the teachers did not have the ability to create the agenda or have a voice in the concern. The PLC meetings were preplanned for the research purpose and may not have aligned exactly with teachers’ needs and wants. The hope was that the teachers would take away ideas on how to uncover the gifts of the ELL students in their classrooms. The PLC did not have the intended effect due to not only time for change but also lack of ownership in deciding the problem to meet about.

3. Does a change in staff members’ understanding lead to an increase in ELL students being referred for identification as gifted? This data was collected via a self-report question from the presurvey to be compared to the postsurvey. The presurvey question asked the staff members how many ELL students they had recommended for GT testing in the previous school year. The postsurvey asked for the staff members to report how many ELL students were referred for gifted identification testing currently this year. It is important to note that this measure is comparing a full academic year (presurvey) to the first 3 months of the current school year (postsurvey). The presurvey was sent in
August 2016. The postsurvey was sent out in November 2016. The link was sent out several times to all certified and classified staff members of the district preschool from the Instructional Specialist of Early Childhood.

Frankfort-Nachmias and Leon-Guerrero (2011) wrote, “Descriptive statistics include procedures that help us organize and describe data collected from either a sample or a population” (p.17). The population is the total set of individuals in which the researcher is interested and for this study the population of the preschool staff in the school district was 45 members (Frankfort-Nachmias and Leon-Guerrero, 2011). “A subset selected from a population is called a sample. Researchers usually collect their data from a sample and then generalize their observations to the larger population” (Frankfort-Nachmias and Leon-Guerrero, 2011, p. 17). The sample size for the presurvey was 21 and the postsurvey was 17.

Frankfort-Nachmias and Leon-Guerrero (2011) wrote, “Whenever one group is compared with another, the most meaningful conclusions can usually be drawn based on comparison of the relative frequency distribution” (p.33). A frequency distribution is the number of observations falling into a category or answer (Frankfort-Nachmias & Leon-Guerrero, 2011). “To standardize these raw frequencies we can translate them into relative frequencies –that is, proportions or percentages” (p.28). Therefore, the data will be presented in charts and percentages for analysis.

Figure 14 shows the data collected from the presurvey on self-reporting the number of ELL students who were referred to GT testing in the last school year. One staff member reported that four or more ELL students were referred to gifted testing
which is 4.76% of the participants. One staff member self-reported referring one ELL student to gifted identification testing, again 4.76% of the participants. Nineteen staff members reported they referred zero ELL students for gifted identification testing last school year, 90% of participants.

![ELL Students Referred for GT Testing](image)

**Figure 14.** Presurvey self-reported referrals for GT testing.

Figure 15 shows the data as reported by the 17 staff members in the number of ELL students who have been referred for gifted identification testing this school year. The interventions had been in place for 3 months at the time of the postsurvey. The school year had been ongoing for 11 weeks and the teachers had had 40 contact days by the time the survey closed. The results had one member referring an ELL student for identification which was 5.88% of the participants. Sixteen of the seventeen participants reported no referrals, which was 94.11% of the participants.
Figure 16 then displays the raw data of the presurvey and the postsurvey for the number of students referred for GT testing who were ELL. Again, the time frame varied about 5 months in time from the reporting timelines. The results demonstrate less staff members referring ELL students for GT identification.

![Graph: ELL Students Referred for GT Testing - Post Survey](image)

*Figure 15. Postsurvey self-reported referrals for GT testing.*
Figure 16. Comparison between presurvey and postsurvey self-reported referral numbers for GT testing.

In analyzing the data, a paired t-test was attempted. A paired t-test is a statistical test to compare two populations with a pre- and poststudy. The analysis was applied to evaluate if the participants changed their behavior between data collection points. There were no extreme outliers since the survey controlled the responses/values of the data, however, there was limited data collected making the t-test not valid. The presurvey ELL referral for GT testing question had a mean of 0.24 with the N at 21. The postsurvey ELL referral for GT testing question had a mean of 0.12 with the N at 17. This data demonstrates that there were less referrals from the presurvey to the postsurvey. The data collected was 46.66% of the population in the presurvey and 37.77% for the post survey from the population but still lacked strength for a statistical correlation.
Frankfort-Nachmias and Leon-Guerrero (2011) wrote, “a theory is an elaborate explanation of the relationship between two or more observable attributes of individuals or groups” (p. 21). In reviewing the data collected, Fullan’s change theory work stands true through this research questions. Less referrals were noted from the presurvey to the postsurvey and demonstrated Fullan’s change theory and notions that you can’t mandate people to change (Fullan, 1994). Another point from Fullan’s work is that change is a journey, not a blueprint (Fullan, 1994). “Under conditions of uncertainty, learning, anxiety, difficulties, and fear of the unknown are intrinsic to all change processes, especially at the early stages.” This is a reason why the referrals may not have increased. As the information was new to the staff members they became increasingly uncertain of their knowledge as seen in the PLC notes. Anxiety of requiring the permission to test a student that may not qualify could feel as though they let someone down or didn’t know the true characteristics.

In further analysis and reflection on the lack of change in the referrals another factor to consider is the lack of principal involvement in the intervention process. Fullan (2001) wrote that top down strategies and bottom up strategies need the support of middle management, or principals, due to their ability to tackle incoherence and mediate forces toward knowledge. The middle managers are a crucial element of change, according to Fullan (2001) and were not part of this study. The lack of referrals can be linked to the lack of support the staff members received from principals to help process through and transfer the knowledge learned through the intervention.
Due to the time variance of the data being recorded, the statistical information may not necessarily represent the population accurately. The presurvey asked for a year’s worth of referrals. A year’s worth would equate to 180 contact days. The postsurvey asked for referrals during the current school year. This was approximately 40 contact days at the time of the postsurvey. Therefore, the time variance would play a part in how many contact hours the teachers would have been able to observe and get to know the students.

Further analysis was conducted on the data available from the additional demographics reported in the postsurvey. In doing a cross-tabulation of the postsurvey data in Qualtrics, the two staff members who reported to refer one ELL student for gifted identification testing both attended the August professional development and did not attend any PLC events. All members who attended the PLC did not report any referrals. The cross-tabulation report from Qualtrics is available in Appendix J. This further demonstrates Fullan’s (1994) notion of change being a journey, which takes time.

In summary, according to the data collected, the answer to Research Question 3 would be that increased knowledge does not lead to increased referral of ELL students who may be gifted. This, of course, does not take into account the variable of elapsed time during the referral windows. The presurvey asked for referrals after 180 contact days and the postsurvey asked for referrals after 40 contact days with preschool students. In reviewing the data the number of referrals did not increase. Shen (2008) referenced Fullan (1991) that wrote, “assume that it will take two to three years for significant change to take place (p. 74). While significant change was not expected this conceptual
lens demonstrates one possibility for not seeing any change, that time does make a difference.

Limitations of the study

After reviewing the data several limitations became apparent to the researcher. One limitation was the small population of staff members that were included in the study. This limited number increased the difficulty of reliable statistical correlation data. Another limitation noted was that the principals of the buildings were not included in the study or provided with the information reviewed through the intervention. Another limitation was the teachers did not have a voice in the creation of the PLC events or the material studied. Finally, the amount of time provided for the teachers was a limitation that did not allow for the staff members to build relationships with their students and observe for characteristics.

Conclusion

The data was coded, analyzed, and themes were brought forth for each research question. In this chapter, the data revealed the primary answers to the research questions. The first research question asked about the staff members’ level of knowledge of characteristics in ELL students that may be gifted. It was found that prior to intervention, the level of understanding was minimal, however it increased and was maintained at a high level over the 3-month research period. The second research question asked if PLCs were effective in increasing the staff members’ understanding. The data revealed no significant difference in the knowledge of the characteristics in comparison to staff members that attended a 1-day professional development. The third research question
asked if the rate of referrals would increase with a change in the staff members’ understanding. The data revealed that there were no differences in the amount of ELL students referred for GT identification postintervention.

The overarching theme found in the intervention through the data was the importance of understanding the characteristics to aid in observation and intentionality of practice through changed thinking. Without the understanding of the characteristics of gifted ELL students, these students can be missed (Esquierdo & Arreguíñ-Anderson, 2012). Teachers need to understand the characteristics of ELL students and language acquisition so they can learn how to program for these students and uncover the gifts that are masked by language and/or culture barriers (Anguiano, 2003). An increase in understanding of the characteristics was seen through a professional development opportunity to have teams discuss the characteristics and work together to gain a better understanding.

This pattern was further demonstrated through the PLC study as teachers engaged in conversation, learning, and the frustration of being comfortable actualizing on the learning information. This pattern supports the theoretical framework of constructivism and that learning is constructed from previous knowledge, and enhanced through social interaction (Hoover, 1996). Through the analysis of the PLCs, the continuum of education was seen through excitement, eagerness, and then hesitancy. The teachers were not provided with the ability to transfer or actualize on their knowledge, therefore slowing down the learning (Hoover, 1996).
Hoover (1996) captured this trend, writing:

If new knowledge is actively built, then time is needed to build it. Ample time facilitates student reflection about new experiences, how those experiences line up against current understandings, and how a different understanding might provide students with an improved (not ‘correct’) view of the world. (p. 6)

While the number of referrals did not increase with the information, the researcher provided a limit to the study: comparing the variable of referrals with different time frames behind the reporting. As stated in the above quotation, one practice of constructivism is the need for time to uncover the gifts in ELL students.
CHAPTER 5: CONCLUSIONS AND IMPLICATIONS

The problem of practice that was researched through this project was the lack of equity for ELL students in the identified gifted population. Several possibilities were researched. One reason reported in the literature was that testing can be biased or the only factor of identification (Anguiano, 2003; Barkan & Bernal, 1991; Ford & Grantham, 2003; Harris et al., 2007). Another reason reported was parents were unsure how to engage the school or advocate for their children due to language or cultural reasons (Harris et al., 2007). Another factor researched was that students who speak more than one language are less likely to be referred for gifted identification because teachers tend to serve as the gatekeepers for the referral process (Ford & Grantham, 2003; Harris et al., 2009).

Preschool staff members became the focus for this research study. Data was gathered through a volunteer opportunity to complete a presurvey, participate in a professional development day in August prior to school starting, attend three subsequent PLC meetings, and complete a postsurvey. The preschool staff was represented in the professional development by 41 members, a combination of teachers, group leaders, and paraprofessionals. All members were invited to participate in all parts of the intervention. The professional development was planned on a workday before students began school and the PLC meetings were planned on Wednesdays, when no students were in class. The data was collected through a mixed-method approach. The data was outlined in a
chronological fashion through narrative and statistical means. The data collected ranged from multiple choice and open-ended survey questions, professional development exit tickets, audio recordings from the PLC, and PLC exit tickets.

The threat to validity discussed in Chapter 3 was that the role of the researcher was also a district employee who works in an administrative role. The community partner was also a district employee responsible for the preschool programming and evaluation of some teachers. This may have caused staff members to feel as though they needed to make the data look better in fear of the evaluations that may take place. No data or scripts were shared and confidentiality was the highest priority of the researcher. This threat to validity did not appear to impact participants’ comments or text. This chapter will focus on the conclusion of the research questions, implications, and suggestions for future research and actions to continue to work toward proportionate representation of ELL students in the gifted population.

**Review of Findings**

The first finding was through the presurvey, the professional development exit ticket, and the postsurvey in regards to the understanding of the characteristics of an ELL student who may be gifted. The staff members who participated in the presurvey gave a letter grade for their knowledge of the characteristics that did not match the open-ended question citing the knowledge of the characteristics; 62% of the staff members who took the survey were unable to provide evidence of that knowledge (Figure 7). After the professional development and also in the postsurvey, the self-reported grades and evidence of knowledge from the open-ended questions were evident and better aligned. The information learned and measured from the presurvey to the postsurvey showed an
80% increase (Figure 13) in understanding the characteristics of an ELL student who may be gifted.

The second finding was that PLC rooted in the literature provided preschool teachers with an outlet to learn the importance of observation and change their thinking about student behaviors. The PLC allowed for the five teachers to brainstorm together and discuss options for transfer activities to elicit the characteristics learned from the professional development. The teachers had the opportunity to reflect on past students and discuss current student behaviors or lessons that would be possible in the classroom.

The third finding concerned, quantitatively, the amount of ELL preschool students referred for gifted identification. The presurvey reported that two staff members referred students during the 2015–2016 school year. One staff member reported the referral of one ELL student and the second staff member reported the referral of four or more ELL students for gifted identification. The postsurvey showed that two staff members reported the referral of one ELL student each for gifted testing between the August 2016–November 2016 research window. This number implies a decrease of referrals in quantity; however, the variable of time should be noted.

**Research Question Conclusions**

The research focused around three major questions. These questions were reported in-depth in the previous chapter but will be reviewed here and further conclusions will be shared. The research questions were:

1. What are preschool staff members’ understandings of the characteristics of ELL identified as GT?
2. Are PLCs effective in increasing preschool staff members’ understanding of the characteristics of gifted ELL students?

3. Does a change in staff members’ understanding lead to an increase in ELL students being referred for identification as GT?

The research and findings showed that the knowledge of preschool staff members on the characteristics of ELL students who may be gifted was much lower through their written work than their self-perceived level of knowledge. Overall, prior to any intervention, most staff members did not feel that they knew the characteristics and the open-ended question of listing characteristics further demonstrated this belief. After a 4-hour training, the open-ended question that asked to list the known characteristics demonstrated an increase in the knowledge from the staff members on the characteristics of ELL GT students.

The PLC sessions were found to not be any more effective in increasing the knowledge of the characteristics of ELL students who may be gifted. The knowledge of the characteristics was further looked into through the PLCs but proved to increase the awareness of the need for observation of students but limit the action of the learners. As the information stayed very book and research heavy, the teachers found themselves second-guessing their thoughts and new knowledge. One theme the researcher found through the notes was the fear to identify a student incorrectly. As the teachers acquired more knowledge about the characteristics for GT ELL students, the more hesitant they were. Throughout the 3 months, these fears and questions became more apparent to the researcher. While the theme from the teachers was awareness of the students, the
researcher found it contradictory that they were questioning more the actions and wondering about the influence of the environment.

While the information learned of the characteristics remained with the staff members, this did not translate to referrals for identification per self-reporting measure on the postsurvey. The exact reason why this knowledge did not lead to further referrals is unclear; however, through the themes of the PLC, it can be hypothesized that the staff members were still working to get to know the students. As of the end of the research study, the staff members had approximately 40 contact days with students. The teachers in the PLC expressed concern that they were still working to differentiate if a student’s knowledge was rapidly acquired or if the student knew the information before entering the room. The teachers in the PLC mentioned that parent–teacher conferences provided a little more understanding of the students and their backgrounds, and that they felt as though as, of October, they could start to see the characteristics blooming in some students.

**Implications of the Findings**

The purpose of this research study was to find out if a change in understanding of the characteristics of ELL and gifted learners impacted the referrals of ELL students for gifted identification. Through this process a few implications of the research study became apparent. The overarching implication was that staff members can change their level of understanding and maintain that knowledge to begin the cycle of change with a few considerations. Change is a multi-step, multi-tiered tool that needs all points facing the same direction to be successful. Ford and Grantham (2003) wrote that teachers were the gatekeepers for underserved student referrals for gifted education. Fullan (2007)
wrote, “Meanwhile, at the school level, the principal has become increasingly important. The principal has always been the “gate-keeper” of change, often determining the fate of innovations coming from the outside or from teacher initiatives on the inside” (p.74). If change is truly going to happen, every level of educational support needs to be a part of the process, or the change trajectory will flatline. The tiers of change for staff are: peer support, levels of support and time for support.

This research study demonstrated that teachers and staff members are willing to volunteer their time to learn about aspects that will enhance their teaching and help their students. Staff members want to be learners too, especially if the material impacts their classroom and they are provided with the choice (Bayar, 2014). Over 40 staff members voluntarily came to learn how to better understand their classroom population and actively learned with each other to better themselves. The characteristics learned were retained and provided further evidence that the constructivism learning theory of calling on past experiences and discussion with coworkers can build on existing knowledge (Armstrong, 2015). Through the literature review it was stated that the professional development and professional learning community events need to have teacher voice (Bayar, 2014). The literature also stated that a professional development session without discussion or movement was less successful and teachers needed a long term investment in the change (Bayar, 2014). While the main professional development was only 4 hours it was all focused on movement, collaboration and discussion. The difference was that the teachers were all staff of the same grade. These staff members could benefit from the
dialectical piece of knowledge while pushing their own thinking because everyone in the room had the same lens: preschool.

Knowledge gained through the learning developed through constructivism and was measured within the staff members (Figure 13). The power of the knowledge gained was the fact that all the staff members in the room were all invested in the same grade level, all the content was directed completely toward the grade level they were working in and all the teaching was focused directly on preschool. This level of training allowed for peer support since all the peers involved were all part of the same district and all were involved with preschool.

One implication of the research was that more students were not referred for gifted identification, which was the purpose of this study. The knowledge of the characteristics was increased, but the follow through on a transfer activity was lacking for the staff to take that knowledge to an applicable stage. The principals were not included in the training which made the staff have a different set of criteria of training and change expected of them based off the school. Principal involvement would have helped with the transfer of knowledge and reinforcing the expectations of referring ELL students for GT identification. The principal could have been another set of eyes on the students and pushed the learning to the next step, resulting in further referrals. Partnership and cohesion can lead to change.

The third implication was the reminder that time is a major component for change, as referrals did not increase. The increase in the knowledge of the characteristics
and the referral process was a powerful start to change in the school district but the true implication of the study will not be observable for some time.

Overall the knowledge gained will benefit the students far more than a referral will. The knowledge gained was not a program or a script; it was a skill to better educate their students. While the lens that was taught with was gifted, all staff members left with a better understanding of their population. This was far more impactful. DuFour, DuFour and Eaker (2008) wrote about professional learning communities and stated, “Do not fall in love with a tree – embrace the forest” (p. 257). In the field of education, the knowledge is the forest, and a script is the tree.

In reviewing all the implications, this study demonstrated that knowledge is maintained when the education is shared with those that have the same end goal. Knowledge is transferred when everyone involved shares the knowledge and the process. Therefore, all school professional developments can only be as impactful as a small team; the power was in providing the outlet for all the preschool teachers. If the district shares the goal and the learning is facilitated not only by school, but also grade levels, then the change can truly start happening.

In conclusion, the focus of professional development and professional learning communities is to see a change. Typically these initiatives are taken on school by school. This hinders the staff in truly delving into the dialectical practice of constructivism due to the small number of teachers sharing the same grade level experience. For change to occur, the staff needs the opportunity to focus on learning with others that are immersed with the same grade level of students to allow the focus to be on the whole child. The
power from this training was that everyone was focused on the lens of preschool, no matter the school they worked at, everyone taught preschool and was able to connect to the material about the 3 – 4 year old students.

**Limitations of the study**

The first limitation noted for this study was the time frame that occurred for the research. The baseline data was collected requesting for referral from the previous school year. The postsurvey requested the referral information; however only three months had passed for the school year and the time frame measured was not the same. It was noted through the PLC meetings that the teachers were grappling with distinguishing the characteristics in their students in comparison to a result of their environment.

The next limitation noted that the study was focused on only preschool and only in one district, therefore only 45 participants were eligible for the study. With a larger population the participation and survey responses may have been greater and therefore would have provided stronger data to perform the inferential statistics to measure impact of the professional development on referrals for gifted identification of ELL students. This limited number of participants added a limitation of a lower N to answer research question number three.

The final limitation was that the role of the researcher and community partner were both district wide specialists in the district that was researched. This role may have influenced participants indirectly to attend the training. This would limit the study because the motivation would have been more extrinsic for attendance than intrinsic.
While having the district support may have assisted in the understanding, the middle management was not involved and may have taken away from the overall impact.

**Future Recommendations for this study**

The first recommendation is to continue the PLC opportunity for the staff members in preschool, but to make the work have a bigger effect on the classroom through a case study or focus group approach. An example of this would be to work to create opportunities for a specific trait to be observed and create a tracking sheet. Allowing the teachers the opportunity to focus on a few students would empower their knowledge and take the research to practical knowledge.

The second recommendation is to continue open communication with the preschool staff about referring students and the process that is in place for the school district. Reminding the staff members to advocate for the ELL students is crucial. It is advised for the school district to send a data gathering survey out in May and compare the results from this study to the end of the year results concerning remembering the characteristics and the number of referrals of ELL students to gifted testing.

The third recommendation is the need for support from the state on education and professional development for ELL students and to help all teachers understand the importance of the characteristics they display, not only for gifted education, but also for several others. Policy needs to be put into place mandating types of continued professional development that need to occur postlicense. As seen in the data, the population of the United States is changing, and teachers need to be better equipped to
address the needs found in the classroom. It is recommended that this education is postlicense for the case study approach to work best.

This topic is of extreme social significance. All students deserve to have trained teachers and staff members who understand their characteristics and, thus, how to better plan for and instruct their strengths. As the population of the country is ever changing, it is of upmost importance that the foundational adults in children’s lives are set for success. Teachers can no longer stand behind the one-size-fits-all wall and feel as though everyone will succeed in the education system. If, as a system, educators do not address this issue, it is as strong of a message as saying their needs are not important. Educators must teach teachers the practices they want to see in the classroom. Additional research including the staff members thoughts on what information they need to learn would take the training and learning to the next step.

**Recommendations for Further Research**

Through the research, several gaps in the literature were identified. The educational field would benefit from studies to help understand some of the trends noted in this research. The first research recommendation is a study on teacher education and action taken from the training. The PLC meetings proved to limit the teachers in their willingness to identify, yet teachers that attended the August training followed through on referrals. It would benefit the educational field to understand the line of education that empowers versus paralyzes action.

Another study that would behoove the ELL and GT field would be to research teacher perceptions of ELL and GT students. This study could be followed with the action of a professional development. Research on perception seemed to be older, and a
new generation of teachers are in the classroom. It is important for administrators to truly understand the perceptions current teachers hold.

A third recommendation for research would be to further this study and follow through with teachers taking the PLC knowledge into action and observation as requested by the teachers at the final session. This study could also be replicated for a year to have the same amount of time to statistically compare referrals, or even further a longitudinal study for successful identifications. From the analysis of this research, it would be recommended to include principals as part of the intervention. Including the principals will allow for multiple levels of participation and support to assist in the change. The PLC did not follow a true PLC model in this study, as the material discussed and read were not from a problem of practice decided upon through the teachers. For this recommendation, it would be suggested to allow the PLC members the opportunity to create the agenda and discussion topics.

Another recommendation to continue this study would be to provide this research study in different types of school districts. This could include rural, urban, small districts and large districts. The district researched was a district of medium size. The research could focus on the pace of change based off the type and size of the district.

Identifying ELL students as gifted was the problem of practice addressed and while knowledge is powerful, the field continues to lack an assessment tool to assist teachers and administrators in this process. The creation of a normed screener and/or checklist would allow for the teachers to have a tool to assist in taking the knowledge to actualization. A tool could provide a reference guide and a normed sample to assist in the understanding and identifying of the traits of a gifted learner in the ELL students.
Finally, a longitudinal case study research project on ELL students identified at the preschool age would allow for all researchers to understand better the impact of early gifted identification. While this research was founded in an at-risk preschool program, it could be replicated throughout a state to gauge the differences of the identification and the experience it may have on education and social-emotional experiences.

**Summary**

The overall implication for the study was that teachers need to have the ability to learn with other teachers that are in the same grade. Once the original learning occurs with the grade level peers it can be taken back to the school and supported through the school based leadership and district leadership. Fullan (2007) stated a top down and bottom up approach were important, but that principals were middle management and were truly the gatekeepers for change. A stratified and unified approach for teachers would be the most effective for change, as well as time for the knowledge to transfer with support.

The research demonstrated that change is a slow process but the knowledge is needed in education. The overall impact for this school district was that the preschool staff members for the 2016-2017 school year took the first step in uncovering the gifts in ELL students.
REFERENCES


Armstrong, C. (2015). In the zone: Vygotskian-inspired pedagogy for sustainability. *The Journal of Classroom Interaction, 50*(2), 133. Retrieved from http://du.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwY2AwNtIz0EUrE4xTgJGRYmqWkgZskKRYWhimppmkGCaZmyQlGRmbgm9zQz522wE2UgCJbVghCS65U_KTQYPm-obm5sC63RzYQrAvKNQFXSMFmm6F3qnBzMBqZGRgBrrSwDzCCT6tABSyhJzLaQnqOJliFMDgWsVNgCEcPsqFxQl6SdjGG4hlyADP7ShqeAISRICDEypecKgO5qh6zlEGGw88xSArT-FqPy8VCuFsMr0_JLi bKCVup55oN n31BSFgNSUXPT89EoFYMNWIRi20wq0mLZSlEHZzTXE2UMX5uJ4aKlsjke4zFiMgSUPaLoEg4JxmoWJsYVFamJiUpJk0GphZkZuF-Yam6RbGlqmSjIIPPJCn80 tIMXMAWhlksfMA0tJUWmqLANTSikA5BmiGw


Lidz, C. S., & Macrine, S. L. (2001). An alternative approach to the identification of
gifted culturally and linguistically diverse learners: The contribution of dynamic
3010221006

United Kingdom: Oxford University Press.

linguistically diverse gifted students*. Waco, TX: Prufrock Press, Inc.

Lohman, D. F. (2005). The role of nonverbal ability tests in identifying academically
doi:10.1177/001698620504900203

academically talented children. *Journal of Psychoeducational Assessment, 30*(1),
25–44. doi:10.1177/0734282911428194

English-language learners using nonverbal tests: A comparison of the Raven,
986208321808

*International Multilingual Research Journal, 8*(1), 24. doi:10.1080/19313152
.2014.852426


Community Partner Agreement

We, Luca Gonzales, have agreed to partner with Sheri Collier in her research for identifying English Language Learners as gifted through professional learning of preschool staff.

I will provide support in and partner to make this difference in our school district.

Sincerely,

Signature: [Signature]
Name: Luca Gonzales
Title: EL Instructional Specialist

Community Partner Agreement

We, Bethany Ageer, have agreed to partner with Sheri Collier in her research for identifying English Language Learners as gifted through professional learning of preschool staff.

I will provide support in and partner to make this difference in our school district.

Sincerely,

Signature: [Signature]
Name: Bethany Ageer
Title: Early Childhood Instructional Specialist
Community Partner Agreement

I, Della Palacios, have agreed to partner with Sheri Collier in her research for identifying English Language Learners as gifted through professional learning of preschool staff.

I will provide support in and partner to make this difference in our school district.

Sincerely,

Signature: [Signature]

Name: Della Palacios

Title: Gifted and Talented Teacher on Special Assignment, School District 27J
Dear School District 27J Preschool Staff,

My name is Sheri Collier and I am a graduate student from the Morgridge College of Education at the University of Denver. I am writing to invite you to participate in my research study about uncovering the gifts in second language learners. The focus is on preschool students as the foundation of the education system and the ability to change the trajectory of education with a solid start. You are eligible to be in this study because you have been hired to work in the district preschool for the 2016–2017 school year. I have partnered with Bethany Ager, who shared your name and e-mail address.

If you decide to participate in this study, you will participate in a survey and/or a professional development opportunity on August 25th. The survey link is below. The survey will take less than 5 minutes. The professional development will be held at the district training room. The training will cover the characteristics of ELL students and gifted students. The training will be interactive learning for all staff members. Another survey will come out in November as well.

The survey contains all the information about consent for you to read over.

Survey link: https://udenver.qualtrics.com/jfe/form/SV_enEqtRXHDIfgG2x

You may choose to be in the study or not. If you have any questions about the study, please e-mail or contact:

Sheri Collier – 303-655-2971 (student)
Dr. Norma Hafenstein – 303-871-2527 (advisor)

Thank you for your time,
Sheri Collier
DU Student
APPENDIX C: PRESCHOOL STAFF PRE-PD SURVEY

Greetings 2016–2017 Preschool Staff!

My name is Sheri Collier and I am the Instructional Specialist for Gifted and Talented Service for School District 27J. I am also a doctoral candidate with the University of Denver. I am pursuing my doctorate in Curriculum and Instruction with an emphasis in Gifted Education. I am researching the impact of professional development and professional learning communities and how that knowledge can impact the education of second language learners that are gifted. Preschool is the foundation, the leveled playing field, and we can change the trajectory of a child’s education! It is powerful and exciting! I will be hosting professional development in August to focus on ways to uncover the gifts in our preschool students. I ask that you take a few minutes to complete this survey to help collect baseline data. To close the data cycle, you will also receive a survey in November. This will allow for us to continue to plan and change the professional development offered.

Please take a moment to read the necessary consent and to answer few short questions. The survey should take no longer than 3 minutes.

Thank you for your time!

Consent Form for Participation in Research Survey

Title of Research Study: Uncovering the Gifts in ELL Preschool Students

Researcher: Sheri Collier, DU Graduate Student

Study Site: School District 27J

Purpose: You are being asked to participate in a research study. The purpose of this research is to determine if professional development will lead to ELL GT identification.

Procedures: If you participate in this research study, you will be asked to complete the survey to the best of your ability.

Voluntary Participation: Participating in this research study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to any survey questions for any reason without penalty or other benefits to which you are entitled.
Risks or Discomforts: There are no potential risks and/or discomforts of participation.

Benefits: Possible benefits of participation include self-satisfaction toward research that may help students.

Incentives to Participate: You will receive no incentive for participating in this research project.

Confidentiality: The researcher will not collect any names. Your identity is anonymous in this survey. All data will be housed on a secure site called Qualtrics to keep your information safe throughout this study. Your individual identity will be kept private when information is presented or published about this study. The research records are held by researchers at an academic institution; therefore, the records may be subject to disclosure if required by law. The research information may be shared with federal agencies or local committees who are responsible for protecting research participants, including individuals on behalf of Denver University.

Before you begin, please note that the data you provide may be collected and used by Qualtrics as per its privacy agreement. This research is only for U.S. residents over the age of 18 (or 19 in Nebraska). Please be mindful to respond in private and through a secured Internet connection for your privacy. Your confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties.

Questions: If you have any questions about this project or your participation, please feel free to ask questions now or contact Sheri Collier at sheri.collier@du.edu or Dr. Norma Hafenstein at norma.hafenstein@du.edu at any time. If you have any questions or concerns about your research participation or rights as a participant, you may contact the DU Human Research Protections Program by emailing IRBAdmin@du.edu or calling (303) 871-2121 to speak to someone other than the researchers.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study. If you decide to participate, your completion of the research procedures indicates your consent.

☑ I understand this survey will be used in collecting data for a research project. I understand that all information and identity is confidential. (1)

☑ I need further information before completing the survey. I will contact Sheri Collier, via email, at scollier@sd27j.net for the information. (2)

If “I need further information...” is Selected, then skip to “Thank you for your time and honesty!...”
Q1. Please select your position for this school year.
- Teacher (1)
- Group Leader (2)
- Paraprofessional (3)
- One on one paraprofessional (4)

Q2. How many years have you worked in this position?
- 0-1 (1)
- 2-4 (2)
- 4-7 (3)
- 8 or more (4)

Q3. How many second language learner students did you refer for gifted and talented testing last year?
- 0 (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 or more (5)

Q4. How knowledgeable are you with the characteristics of a gifted ELL preschool student? Please drag the bar to give yourself a grade.
- 1 (1) F
- 2 (2) D-
- 3 (3) D
- 4 (4) D+
- 5 (5) C-
- 6 (6) C
- 7 (7) C+
- 8 (8) B-
- 9 (9) B
- 10 (10) B+
- 11 (11) A-
- 12 (12) A
- 13 (13) A+

Q5. Please list 3–5 characteristics of a gifted ELL learner, if you know any. If you do not know any, please type in “none known at this time.”
Thank for your time.
APPENDIX D: EXIT TICKET – AUGUST

Event: August Professional Development

1. Please list a few new take-aways or learning from today.

2. Please list 3–5 characteristics of the GT ELL learner

3. Please list one action that you will take in the classroom as a result of the professional development today.
APPENDIX E: EXIT TICKETS – SEPTEMBER, OCTOBER, AND NOVEMBER

Event: September PLC Meeting

1. Please list one new take-away or learning from today.

2. Please describe one area of giftedness you learned about in this PLC.

3. Please share one action you have taken since the August professional development.

4. Please list one action that you will take in the classroom as a result of the professional development today.

Event: October PLC Meeting

1. Please list one new take-away or learning from today.

2. Describe the graphic that connected with you the most from the readings for this month. Please explain why it connected with you the most.

3. Please share one action you have taken since the September PLC.

4. Please list one action that you will take in the classroom as a result of the professional development today.

Event: November PLC Meeting

1. Please list one new take-away or learning from today.

2. This month the literature defined eight principles for competency in understanding the foundations to work with gifted CLD students. Which one connected with you the most and why?

3. Please share one action you have taken since the October PLC.

4. Please list one action that you will take in the classroom as a result of the professional development today.
APPENDIX F: PRESCHOOL POST SURVEY

Greetings 2016–2017 Preschool Staff! It is time for the POST survey.

Here is a reminder of the introduction form the August survey: My name is Sheri Collier and I am the Instructional Specialist for Gifted and Talented Service for School District 27J. I am also a doctoral candidate with the University of Denver. I am pursuing my doctorate in Curriculum and Instruction with an emphasis in Gifted Education. I have been researching the impact of professional development and professional learning communities and how that knowledge can impact the education of second language learners that are gifted. Preschool is the foundation, the leveled playing field, and we can change the trajectory of a child’s education! It is powerful and exciting! I ask that you take a few minutes to complete this survey to help collect the end of the cycle data. This survey should take less than 5 minutes! Thank you for your honesty and time! It is greatly appreciated!

Consent Form for Participation in Research Survey

Title of Research Study: Uncovering the Gifts in ELL Preschool Students

Researcher: Sheri Collier, DU Graduate Student

Study Site: School District 27J

Purpose: You are being asked to participate in a research study. The purpose of this research is to determine if professional development will lead to ELL GT identification.

Procedures: If you participate in this research study, you will be asked to complete the survey to the best of your ability.

Voluntary Participation: Participating in this research study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to any survey questions for any reason without penalty or other benefits to which you are entitled.

Risks or Discomforts: There are no potential risks and/or discomforts.

Benefits: Possible benefits of participation include self-satisfaction toward research that may help students.
Incentives to Participate: You will receive no incentive for participating in this research project.

Confidentiality: The researcher will not collect any names. Your identity is anonymous in this survey. All data will be housed on a secure site called Qualtrics to keep your information safe throughout this study. Your individual identity will be kept private when information is presented or published about this study. The research records are held by researchers at an academic institution; therefore, the records may be subject to disclosure if required by law. The research information may be shared with federal agencies or local committees who are responsible for protecting research participants, including individuals on behalf of DU.

Before you begin, please note that the data you provide may be collected and used by Qualtrics as per its privacy agreement. This research is only for U.S. residents over the age of 18 (or 19 in Nebraska). Please be mindful to respond in private and through a secured Internet connection for your privacy. Your confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties.

Questions: If you have any questions about this project or your participation, please feel free to ask questions now or contact Sheri Collier at sheri.collier@du.edu or Dr. Norma Hafenstein at norma.hafenstein@du.edu at any time. If you have any questions or concerns about your research participation or rights as a participant, you may contact the DU Human Research Protections Program by emailing IRBAdmin@du.edu or calling (303) 871-2121 to speak to someone other than the researchers. Please take all the time you need to read through the above information and decide whether or not you would like to participate in this research study.

☐ I understand this survey will be used in collecting data for a research study. I understand that all information and identity is confidential. (1)

☐ I need further information before completing the survey. I will contact Sheri Collier, via email, at scollier@sd27j.net for the information. (2)

If “I need further information...” is selected, then skip to, “Thank you for your time and honesty!...”
Q1. Please select your position for this school year.
☐ Teacher (1)
☐ Group Leader (2)
☐ Paraprofessional (3)
☐ One on one paraprofessional (4)

Q2. How many years have you worked in this position?
☐ 0-1 (1)
☐ 2-4 (2)
☐ 4-7 (3)
☐ 8 or more (4)

Q3. Did you complete the PRE survey in August?
☐ Yes (1)
☐ No (2)
☐ I do not remember (3)

Q4. Please select the training events you attended so far this school year.
☐ August preschool professional development on characteristics of gifted bilingual preschool students (1)
☐ September Professional Learning Community meeting - Identification Characteristics (2)
☐ October Professional Learning Community meeting - Second Language Acquisition (3)
☐ November Professional Learning Community meeting - Giftedness in Culturally and Linguistically Diverse Students (4)

Q5 How many second language learner students have you referred for gifted and talented identification this year?
☐ 0 (1)
☐ 1 (2)
☐ 2 (3)
☐ 3 (4)
☐ 4 or more (5)
Q6. How knowledgeable are you with the characteristics of a gifted ELL preschool student? Please drag the bar to give yourself a grade.
- 1 (1) F
- 2 (2) D+
- 3 (3) D
- 4 (4) D-
- 5 (5) C-
- 6 (6) C
- 7 (7) C+
- 8 (8) B-
- 9 (9) B
- 10 (10) B+
- 11 (11) A-
- 12 (12) A
- 13 (13) A+

Q7. Please list 3-5 characteristics of a gifted ELL learner, if you know any? If you do not know any, please type in "none known at this time"

Thank you for your time!
Appendix G: Consent Form for Professional Development Day

University of Denver
Consent Form for Participation in Research
Consent for Participating in Professional Development Day

Title of Research Study: Uncovering the Gifts in ELL Preschool Students

Researcher: Sheri Collier, DU Graduate Student and Dr. Norma Hafenstein, Advisor

Study Site: School District 27J

Purpose
You are being asked to participate in a research study. The purpose of this research is to determine if professional development will lead to ELL GT identification.

Procedures
If you participate in this research study, you will be asked to attend the professional development. The professional development will be on the characteristics of second language learners and gifted preschool students. The professional development will be interactive and applicable to all preschool staff.

Voluntary Participation
Participating in this research study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to participate in the professional developments or professional learning community meetings for any reason without penalty or other benefits to which you are entitled.

Risks or Discomforts
Potential risks and/or discomforts of participation may include emotional distress on reflecting on previous students and work done.

Benefits
Possible benefits of participation include learning about characteristics of ELL students that may be gifted and help get these students identified for GT.

Incentives to participate
You will receive training on characteristics of ELL and GT preschool students.

Confidentiality
The researcher will not collect names on any of the surveys or exit tickets. No information will be shared with administration. All data will be coded to keep your information safe throughout this study. Your individual identity will be kept private when information is presented or published about this study.
The research records are held by researchers at an academic institution; therefore, the records may be subject to disclosure if required by law. The research information may be shared with federal agencies or local committees who are responsible for protecting research participants, including individuals on behalf of School District 27J.

Questions
If you have any questions about this project or your participation, please feel free to ask questions now or contact Sheri Collier at sheri.collier@du.edu or Dr. Hafenstein at norma.hafenstein@du.edu at any time.

If you have any questions or concerns about your research participation or rights as a participant, you may contact the DU Human Research Protections Program by emailing IRBAdmin@du.edu or calling (303) 871-2121 to speak to someone other than the researchers.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

If you agree to participate in this research study, please sign below. You will be given a copy of this form for your records.

<table>
<thead>
<tr>
<th>Participant Signature</th>
<th>Printed Name</th>
<th>Date</th>
</tr>
</thead>
</table>
APPENDIX H: CONSENT FORM FOR PARTICIPATING IN PROFESSIONAL LEARNING COMMUNITY EVENT

University of Denver
Consent Form for Participation in Research
Consent for Participating in Professional Learning Community Event

Title of Research Study: Uncovering the Gifts in ELL Preschool Students

Researcher(s): Sheri Collier, DU Graduate Student & Dr. Norma Hafenstein, Professor/Advisor

Study Site: School District 27J

Purpose
You are being asked to participate in a research study. The purpose of this research is to determine if professional development will lead to ELL GT identification.

Procedures
If you participate in this research study, you will be asked to attend a professional development on characteristic of second language learners and gifted preschool students. The professional learning community meetings will be further conversation into characteristics and second language acquisition. The PLC meetings will be audio recorded for note-taking purposes. All materials for the PLC will be provided.

Voluntary Participation
Participating in this research study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to participate in the professional developments or professional learning community meetings for any reason without penalty or other benefits to which you are entitled.

Risks or Discomforts
Potential risks and/or discomforts of participation may include emotional distress on reflecting on previous students and work done.

Benefits
Possible benefits of participation include learning about characteristics of ELL students that may be gifted and help get these students identified for GT.

Incentives to participate
You will receive training and access to the literature for participating in this research project.
Confidentiality
The researcher will not collect names on any of the surveys or exit tickets. No names will be used in the note taking of the PLC meetings. No information will be shared with administration. All data will be coded to keep your information safe throughout this study. Your individual identity will be kept private when information is presented or published about this study.

Audio recordings will be used during the PLC to allow for conversation to flow and for the researcher to take notes and find themes after the event. All recordings will be transferred to CDs and will be deleted from the recording device. All CDs will remain locked at the house of the researcher.

The research records are held by researchers at an academic institution; therefore, the records may be subject to disclosure if required by law. The research information may be shared with federal agencies or local committees who are responsible for protecting research participants, including individuals on behalf of School District 27J.

Questions
If you have any questions about this project or your participation, please feel free to ask questions now or contact Sheri Collier at sheri.collier@du.edu or Dr. Hafenstein at norma.hafenstein@du.edu at any time.

If you have any questions or concerns about your research participation or rights as a participant, you may contact the DU Human Research Protections Program by emailing IRBAdmin@du.edu or calling (303) 871-2121 to speak to someone other than the researchers.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

If you agree to participate in this research study, please sign below. You will be given a copy of this form for your records.

__________________________  ____________________________  ____________
Participant Signature            Printed Name            Date
**Question that:**

The answer is: **INTRIGUED**

**Find your match**

1. Distribute the white cards to each person at the table.
2. Find your match.
3. Once you have found your match, introduce yourself, your position, school, and share a highlight from your career.

**Our objective:**

To develop knowledge of shared characteristics of English Language Learners in preschool.

**Brainstorm**

With your school based team: Create a list of characteristics of English Language Learners in preschool.

**Gallery walk**

1. Walk around the room and read other lists.
2. Add a check mark next to any characteristics that your group had too!
BRAIN BREAK... Think of 2 things that interest you!
They both must start with the letter R.

Brainstorm
Create a list of characteristics of a gifted learner in preschool.

Quick Review
As a team, review the information for Gifted Learners and High Achieving learners.
Fill in your gifted poster as necessary.

Find another team...
2 teams share posters and create ONE master poster.
Hang your completed shared poster!!

Preschool Team Venn Diagram
1. Each member of the team should get 2 Post It Notes.
2. Write down 1 characteristic discussed on each Post It note.
3. Put your Post It note on the Team Venn Diagram.
Looking at the research...

Kinged Observation Protocol
1. Characteristics
2. Categories

Referral Process for 27:
- Present the new diagnostic process
- Observation with the school-based OT Teacher Leader
- Guides for identifying gifted students - for teacher
- Guides for identifying gifted students - for parents
- Cognitive Testing / Academic Testing

Exit Ticket
## APPENDIX J: PRESCHOOL POSTSURVEY CROSS-TABULATION

**Table 15**  
*Responses from Postsurvey*

<table>
<thead>
<tr>
<th>Position</th>
<th>Years in</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>3-5 characteristics</th>
<th>Coded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>0-1</td>
<td></td>
<td>Yes</td>
<td>August PD</td>
<td>0</td>
<td></td>
<td></td>
<td>(B)</td>
<td>Quiet, knows answers, highly curious</td>
<td>2</td>
</tr>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>I do not remember</td>
<td>August PD</td>
<td>0</td>
<td></td>
<td></td>
<td>(B)</td>
<td>Fast learner Emotionally sensitive, Inquisitive Ability to problem solve using a variety of materials, Using a variety of methods to communicate effectively, Beginning to show interest and ability in reading text.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>I do not remember</td>
<td>August PD, September PLC, October PLC</td>
<td>0</td>
<td></td>
<td></td>
<td>(B)</td>
<td>Curios has an intense interest is persistent, motivated analyzes problems understands very little English Cultural conflicts or understanding speaks in one to two word phrases highly curious, elaborates, shows strong feelings and opinions</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Group Leader</td>
<td>8 or more</td>
<td>I do not remember</td>
<td>August PD, September PLC</td>
<td>0</td>
<td></td>
<td></td>
<td>(C+)</td>
<td>Phrases highly curious, elaborates, shows strong feelings and opinions</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>2 to 4</td>
<td>Yes</td>
<td>August PD</td>
<td>0</td>
<td></td>
<td></td>
<td>(B+)</td>
<td>Quick Language Acquisition</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>4 to 7</td>
<td>Yes</td>
<td>August PD</td>
<td>1</td>
<td></td>
<td></td>
<td>(C+)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

156
<table>
<thead>
<tr>
<th>Role</th>
<th>Age Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>8 or more</td>
<td>Can think in more than one language. Can look at situations from more than one perspective. Is independent. Has a high level sense of humor. Asks questions. Are highly curious. Are mentally and physically involved. Has wild and silly ideas. Plays around, yet tests well! Already knows. Constructs abstractions.</td>
</tr>
<tr>
<td>Group Leader</td>
<td>4 to 7</td>
<td>I do not remember August PD 0 (A) 1. ask the questions 2. are highly curious 3. are mentally and physically involved 4. shows strong feelings and opinions 5. discusses in detail, elaborates Always responding to questions with the correct answers has extended knowledge on various subjects. Able to read most preschool books word for word. Emotional can cry easily.</td>
</tr>
<tr>
<td>Paraprofessional</td>
<td>4 to 7</td>
<td>Yes August PD 0 (C+) Observant and detailed about everything. 1</td>
</tr>
<tr>
<td>Group Leader</td>
<td>8 or more</td>
<td>I do not remember</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Group Leader</td>
<td>8 or more</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Group Leader</td>
<td>8 or more</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### Preschool POST survey Cross Tabulation

<table>
<thead>
<tr>
<th>Number of Second Language Learner Students</th>
<th>August Preschool Professional Development on Characteristics of Gifted Bilingual Preschool Students</th>
<th>September/Professional Learning Community Meeting - Identification Characteristics</th>
<th>October/Professional Learning Community Meeting - Second Language Acquisition</th>
<th>November/Professional Learning Community Meeting - Giftedness in Culturally and Linguistically Diverse Students</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>13</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
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<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4 or more</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>15</td>
</tr>
</tbody>
</table>

**Chi-Square Test**

<table>
<thead>
<tr>
<th>Degree of Freedom</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note: The Chi-Square approximation may be inaccurate - expected frequency less than 5.*