# EXAMINING THE PERCEIVED EFFICACY OF PROFESSIONAL LEARNING IN GIFTED AND TALENTED EDUCATION

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This research aims to examine current practices in gifted and talented educator professional learning, as well as teacher attitudes, beliefs, and experiences towards gifted education in order to explore opportunities to further develop and improve professional learning structures. Through a qualitative methodology following the constructivist-interpretivist paradigm, this research utilizes a phenomenological interview design in which data from educator interviews are examined through thematic analysis. To support and further extrapolate on the feedback from the interviews, this research also includes a document analysis of the published descriptions of 30-hour educator training required for those providing GT services in the state of Texas. The thematic analysis of interviews identified three major themes and two minor themes after engaging in a deep analysis of the interview transcriptions. These major themes are the (1) utility of professional learning, (2) shared control of learning, and (3) understanding the whole student. Minor themes are (i) long-term career growth and (ii) role of professional support networks and connections. Results of the document analysis illustrate that the most frequent descriptions are associated with the abilities participants will take from the learning. Within this descriptive code, most of the language focused on learner competence, while few of the descriptions included references to self-efficacy, which is integral to adult learning and motivation. Implications and further areas for study provide guidance on future work in developing effective professional learning coursework.

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# CHAPTER 1

# INTRODUCTION

## The Effects of the Educator on Gifted and Talented Students and Services

An educator's impact on society cannot be underestimated. From challenging the minds that will change the future to supporting communities day-to-day through work with students and parents, the educator's role is critical. Renzulli (2012) reflected on goals related to societal contributions and their alignment with democratic philosophies of education: leaders, paradigm-shifters, and innovators were all affected, one way or another, by educators who help build the foundation for their work. Educators, in essence, shape the future.

Looking through a less philosophical lens, one can begin by simply examining the amount of time spent working directly with students in order to appreciate the degree to which educators can impact both individuals and communities. For example, students in the state of Texas spend seven hours per day in public schools, an average of 180 days per year. Of this time, 1,260 hours are dedicated for instruction (U.S. Department of Education, National Center for Education Statistics, n.d.), excluding academic intervention, enrichment, and tutoring. During the school year, students spend more waking hours per week with educators than they do with their families. This dedicated teaching and learning time, when used productively, has the potential to provide students with the academic, social, and emotional supports necessary to be successful both within and beyond the school system.

The key here is the practice of using time *productively*. Educators must regularly be afforded opportunities for professional learning that equips them to provide students

with best-practice instruction, in order to maximize positive impact during time spent working together. Effective professional learning helps educators to constantly reshape and reimagine their craft to responsively meet the needs of an ever-changing student demographic. As a result of this dynamic learning and professional growth, students realize positive academic and developmental outcomes. Training and professional learning that equips educators with the resources and knowledge necessary to grow both their craft and their students must be relevant, timely, and directly impactful to classroom instruction (Lee & Lee, 2018). To improve outcomes for students, schools must support ongoing professional growth and development for faculty so that all learners are able to maximize their potential.

## Realizing Educational Outcomes

What are the specific outcomes with which schools and educators should be concerned? At the state level, Texas' outcomes for education include encouraging and challenging students to meet their maximum educational potential; full matriculation through school systems resulting in a high school diploma; and students being appropriately prepared to be thoughtful and active members of society (Texas Education Agency, 2018). These are outcomes the state has articulated for *all* students in Texas' public education system. While these outcomes may look different from student to student, assurance that students will have equitable opportunities to achieve these goals can only be made through understanding the unique needs of the diverse populations found in Texas public schools.

One population that is continually overlooked by school systems, as well as individual educators in the classrooms, are gifted and talented (GT) students. These

students are learners who demonstrate advanced learning needs in comparison to their same age or grade peers (Texas Education Agency, 2019). David (2011) stated that, “One of the main problems of establishing gifted education is the comparatively low awareness of its need” (p. 104). What do gifted and talented students need to be successful? According to Johnsen’s (2021) work in outlining standards for gifted and talented teaching and learning, some of the basic practices and considerations include:

- Collaboration with like-ability peers (this is a provision also outlined in the Texas State Plan for the Education of Gifted/Talented Students
- Opportunity for students to identify preferred approaches to learning, and having those approaches honored and developed in the classroom
- Adaptation or replacement of core curriculum for content that meets advanced learning needs
- Engaging in critical and creative thinking with students and providing opportunities for inquiry and problem-based models of learning
- Use of curriculum that facilitates deep explorations of cultures, languages, and diverse social issues

While this is not an exhaustive list of effective elements of gifted and talented teaching strategies, these key components provide a general outline for understanding the complex needs that GT learners have. These students demonstrate academic needs that require appropriate adaptations and modifications. Currently, there are very few policies in place to assure the “appropriateness” of a free and appropriate education guaranteed for all students. In Kaul and Davis's (2018) analysis of each state’s Every Student Succeeds Act (EAA) plans, only 16 explicitly addressed how gifted and talented students would receive effective instruction. This leaves ample room for schools to misunderstand or overlook the learning needs of gifted and talented students. When these needs go unmet by individuals or systems who fail to realize that resources must

be invested into services supporting gifted education best practices, students do not have the necessary structures to realize their individual educational outcomes.

The “why” behind overlooking and under-serving gifted and talented students is multifaceted. Given the amount of time that students spend learning in Texas schools and the goals that the state has outlined for all students, it is important to understand the key structures and practices necessary to help students, including those identified as gifted and talented learners, achieve these outcomes. On a systems level, this student population consistently receives less focus, time, and attention in educator training and ongoing professional development (Lassig, 2019). Students with advanced learning needs fall into a category that seldom receive much, if any, time or attention during teacher training programs (Bain et al., 2007). According to the 2018-2019 State of the States in Gifted Education, only three study respondents indicated that their state required students in teacher preparation programs to take coursework related to gifted education (Rinn et al., 2020). The 2020-2021 State of the States in Gifted Education reported only one more respondent than the previous report ($n$ = 4) indicated that university coursework was required for gifted education teachers (RInn et al., 2022). The lack of support for preservice teachers could be amended by learning through the required 30-hour foundational training required in Texas for teachers providing gifted and talented services; however, the content and quality of this training varies widely across providers.

The Texas State Plan for the Education of Gifted/Talented Students (Texas Education Agency, 2019) requires 30 hours of foundational professional learning for any teacher responsible for providing gifted and talented services. Of the 30 hours, 18 must

be spent on topics that include the nature and needs of gifted and talented students, identification and assessment of gifted and talented students, and curriculum and instruction for gifted and talented students. The content of the remaining hours may be determined by the local education agency (LEA) or another provider. While requiring 30 hours of training is a significant step in ensuring that educators are adequately prepared to work with gifted and talented learners, the content of these foundational hours is completely up to the provider, with no provisions in place to monitor the accuracy or quality of the material presented.

The lack of preservice education related to meeting the needs of gifted and talented students, coupled with the high levels of variability in the content and quality of the required 30-hour training is troubling, given that the prevalent service model for meeting the needs of GT learners relies on in-class differentiation (Gomez-Arizaga et al., 2020; Rinn et al., 2020,). In this service model, the teacher is responsible for implementing targeted intervention to accelerate, enrich, or extend the content to make learning appropriate for gifted and talented students. Effective differentiation for GT learners depends on the quality of teaching provided in their classrooms (VanTassel-Baska, 2021). Quality teaching requires quality training and professional learning opportunities, which are often not afforded to educators effectively or in a timely manner. Without the appropriate knowledge, foundation, or ongoing support for implementing the instructional practices GT learners require, educators are at a significant disadvantage in terms of requisite knowledge and skills to help their students succeed.

On an individual level, educator attitudes, beliefs, and misconceptions contribute

to the reticence to prioritize gifted and talented education. With little exposure to pedagogy around advanced learning, teachers are left to approach gifted and talented education with only their personal beliefs and presuppositions. Unfortunately, existing educator schemas frequently hold negative views about gifted and talented students and services (Berman et al., 2012; Szymanski et al., 2018). For example, when compared to services designed to support students who are language learners or those with special education needs, educators frequently adopt the belief that GT learners will be “fine on their own” without targeted academic intervention (Bain et al., 2007). Moreover, there is a pervasive belief among educators that allocating resources towards gifted and talented services removes resources for other specialized programs, such as special education or English language learning supports (Tirri et al., 2002). This is simply untrue. Gifted and talented students, unfortunately, are ignored due at least in part to these incorrect beliefs (Waterman, 2022), which certainly does not lead to equitable opportunities for this student demographic to maximize their potential and realize educational outcomes articulated by the state.

## Supporting Equitable Outcomes for All

Teachers are the most important school-related catalysts for students’ academic growth (Rice, 2003). Given this critical capacity to affect learners, the value of a well-prepared, knowledgeable, and skilled educator in ensuring that students maximize their potential cannot be underestimated. Indeed, educator preparation programs and professional development that build content knowledge, support practices for developing twenty first century skills, and provide readily applicable tools for success in increasingly diverse classrooms area ideal for organizations to grow and develop

educators (Olson, 2000; Borman et al. 2009, Mueninghoff et al., 2009; Olson, 2000; Wycoff et al., Nash et al., 2003). This training should be inclusive of the needs of *all* student populations. From English language learners to those receiving special education services, to gifted and talented students, the goals and objectives of educators' ongoing learning and development should focus on building the skills that support each learner in their classroom so that every student has the opportunity to maximize their potential. Because educator effectiveness is directly related to student academic achievement (Heck, 2009), educators must be properly trained on the specific and nuanced needs of the many student populations that they serve, including those of the gifted and talented.

For students to experience success in school, they must be engaged both as learners and members of the school community. Positive, productive engagement has three dimensions: behavioral (or actively participating in school), emotional (identification and belonging in school), and cognitive (use of self-regulation strategies) (Wang & Holcombe, 2010). The educator's role in promoting school engagement is essential. Through continual engagement in all three areas, a well-prepared educator can ensure that all students' academic experiences result in equitable growth. Within each dimension, there are key strategies and practices that teachers must be trained to employ to reach GT learners.

### *Behavioral Engagement*

Behavioral engagement, defined as active participation in school (Wang & Holcombe, 2010) seems an obvious prerequisite for students to succeed. However, GT learners may underachieve, and effectively "fly under the radar" as a student group that

requires academic intervention. Because these students are not failing, it is easy to overlook a gifted and talented student's underachievement. When a student under achieves, there is a significant discrepancy between *expected* achievement (frequently measured by the identification tools used for gifted and talented services), and *actual* achievement (i.e., grades, teacher evaluation) (McCoach & Siegle, 2003). A classroom teacher may never see the assessment results used to identify a student for gifted and talented services and may not be aware of that student's academic potential. If the student has learned that they can maintain satisfactory grades with little to no effort, and this seems to satisfy their teacher, an opportunity to push this student to maximize their potential has been missed. The teacher may know that the student has been identified for gifted and talented services, and simply assume that they "just do not see it" in their classroom. Underachievement, however, can be reversed and students can be appropriately challenged by applying instructional strategies that will encourage positive behavioral engagement in the learning environment.

High academic press (i.e., establishing exacting standards and expectations for students) also relates to high behavioral engagement in school (Lee, 2012). Educators who communicate high expectations for their students do not focus on how quickly a student can learn something or high grades; rather, an educator who sets high standards focuses on encouraging each student to engage in challenging learning that results in the growth of knowledge and skills (Carpenter et al., 2004). Communicating to students that struggle is not only acceptable but encouraged, and holding individual students accountable for their learning, reinforces these high standards and expectations. This approach to establishing a classroom environment that challenges all

learners also encourages creativity, which in students, can manifest in independent thinking and openness to ideas (Olszewski-Kubilius et al., 2015). When students know that their creative ideas around a topic or standard are more valued than their score on an evaluation of the same material, they will more consistently engage in the academic environment because risk is low, and rewards are high (Gietz & McIntosh, 2014). Establishing an environment in which academic rigor and in-depth exploration of the material, rather than high achievement, is valued is the first step in engaging students behaviorally.

Communicating high expectations lays the groundwork for providing levels of academic rigor appropriate for gifted and talented learners. The framework for practices that maximize potential, supported by this groundwork, is centered on a mastery approach to learning. Teachers can best support behavioral student engagement by promoting an approach to learning that focuses on deep mastery of the content, rather than pressuring students to achieve consistently high grades on basic learning standards (Wang & Holcombe, 2010). When high standards and expectations are consistent, the shift in holding students accountable for their learning happens when teachers and students share continual feedback, set goals, and evidence the work put into reaching those goals. Effective educators of gifted and talented learners focus on higher learning rather than performance-goal orientation (Hong et al., 2011) because they know that continually high levels of cognitive rigor appropriately challenge GT learners to grow. The alternative to cognitive rigor and continual student growth is disengagement, underachievement, or “coasting” along quietly from grade to grade. Educators must learn the skills necessary in identifying and understanding

underachievement and strategies to sustain behavioral engagement in their gifted and talented learners.

*Emotional Engagement*

An emotionally engaged student feels a sense of belonging in the school environment, and positively identifies themself as a valued member of the learning community. Educators can support emotional engagement through purposefully building relationships and fostering an accepting and non-threatening learning environment (Hong et al., 2011). Demonstrating emotional responsiveness in the teacher-student relationship also relates to emotional engagement (Lee, 2012). Furthermore, acceptance by teachers and peers (Gietz & McIntosh, 2014) has been linked to student academic achievement. Although Texas's articulated student goal outcomes focus more on student achievement, it is important to remember the key role that being emotionally engaged in school plays in academic achievement. Educators must receive instruction on and engage in deliberate practice around including the types of structures that help gifted and talented students engage emotionally in their classes; that is, appropriate academic challenge, increased variety of learning topics, using depth of exploration in developing conceptual understandings, and more student choice and autonomy (Kitsantas et al., 2017). Educators require professional support in effectively leveraging these structures so that their GT learners feel like they are a valued member of the academic community, because the teacher understands and works to meet their unique needs.

Educators are also influential in the psychosocial development of students by demonstrating their care, expectations for success, and leveraging appropriate and

meaningful social and emotional interventions in the classroom (Brown et al., 2010). These interventions are sensitive to students' needs and demonstrate educators' knowledge of and investment in students' well-being. Educator traits and behaviors themselves are also influential in students' emotional engagement. Effective teachers of gifted and talented students demonstrate a willingness to make mistakes, self-confidence, openness, flexibility, high tolerance of ambiguity, enthusiasm, and empathy (Hong et al., 2011). Cultivating these traits requires an investment in time on reflection, coaching, and purposeful goal setting on the part of the educator. The professional learning required for educators to internalize and practice strategies to support students' emotional engagement must be regular and current, and a priority for school systems.

*Cognitive Engagement*

The third dimension of engagement is cognitive engagement. This is defined as using self-regulation strategies to encourage the behavioral and emotional engagement necessary for student success (Wang & Holcombe, 2010). In their work on the psychosocial skills supporting gifted students' talent development, Olszewski-Kubilius et al. (2015) identified several skills rooted in self-regulation:

- Students' development of positive self-efficacy regarding learning
- Their ability to regulate mood and emotions
- Capacity to identify their own strengths and weaknesses and leverage those for academic growth and development
- Maintenance of positive academic emotions; and the ability to develop self-confidence

These key pieces provide the third dimension of skills and practices that facilitate student engagement. A fully engaged student is one that can focus on developing their

gifts and talents in ways that allow them to realize their full academic potential.

Educators can impact this engagement piece in several ways. They must be trained to first recognize the characteristics and behaviors that signal underachievement and cognitive disengagement, and then to use the tools and strategies needed in developing and strengthening these skills. When identifying underachievement and cognitive disengagement, educators may notice students exhibiting low academic self-perception, students sharing negative attitudes towards school, teachers, and their classes, low motivation, poor self-regulation, and low valuation of personal and academic goals (McCoach & Siegle, 2003). Students who articulate these self-beliefs or demonstrate the classroom's outlined behaviors require intervention to enjoy cognitive engagement with school (Olszewski-Kubilius et al., 2015).

When educators identify these characteristics or behaviors, they must intervene with specific redirection of students' psychosocial constructs. In order to do this, requisite time and attention must be paid to learning about which strategies will most effectively impact students. To develop self-regulated learners, educators must understand how to teach and model what self-control, organization, planning and goal-setting, and deliberate practice look like for gifted and talented learners (Olszewski-Kubilius et al., 2015). They must do this through learning strategies on a level appropriate for this student population, as well as ones that focus on metacognition and realistic self-evaluation. Educators must also support students' emotional management skills in order for them to create support systems and engage mentors and peers (Olszewski-Kubilius et al., 2015), and learn how to recognize cognitive triggers for problematic behavior. Educators themselves must be afforded time for learning and

deliberate practice of interventions that support gifted and talented students' cognitive engagement.

If GT learners are to realize the goals and outcomes that the state of Texas has outlined for all its students, educators must be provided the professional learning opportunities to know, understand, and implement the practices necessary for student success. Effective learning opportunities must be continually embedded throughout the cycle of professional growth, and these opportunities must be designed with the knowledge of not only gifted and talented education best practices, but with knowledge of the teacher attitudes, beliefs, and current ideas held around gifted education.

## Purpose and Research Questions

This research aims to examine both current practices in gifted and talented educator professional learning, as well as teacher attitudes, beliefs, and experiences towards gifted education to explore opportunities to further develop and improve professional learning structures. If a student spends a great deal of classroom time with a teacher who is effective, knowledgeable, and sensitive to their needs, then that student will likely experience progressive academic growth, as well as social and emotional gains. Conversely, in the classroom of a teacher who lacks the knowledge and skills necessary to support positive learning and growth, students are at a real risk for academic stagnation, as well as poor social and emotional development. Whether the impact on students is positive, negative, or neutral (i.e., amounting to no student growth) has a great deal to do with how effective teachers are in the classroom.

Gifted and talented students, like all other student populations, deserve teachers who are properly trained to help them maximize their potential. This research examines

teachers' experiences with current training and professional development practices in gifted and talented education in Texas, and how these experiences have impacted their attitudes, beliefs, and instructional practices. The following questions provide the framework for this research:

1. What are educators' experiences related to professional learning for teaching gifted and talented students in Texas?
2. What are educators' experiences in working with gifted and talented learners?
3. What are educators' perceptions of characteristics of gifted and talented learners?
4. What motivates educators to apply professional learning?
5. How has the 30-hour training required for Texas educators providing gifted services impacted teacher knowledge and pedagogy?

## Approach to Research

The field of education is built around people: how individuals from a variety of backgrounds and experiences come together to support student learning and growth. On the state level, the Texas Education Agency's (TEA) mission and responsibilities pledge that the organization will, ."..improve outcomes for all public school students in the state by providing leadership, guidance, and support to school systems" (Texas Education Agency, n.d.). Leaders in the TEA must collaborate with lawmakers, scholars, and school districts to equip teachers and school administrators with the knowledge and tools required to meet an incredibly wide range of students' needs. Every stakeholder involved in decision making at this level comes with their own set of beliefs, experiences, and perspectives about what constitutes effective education, and these personal lenses color the decisions made at the highest level of education.

As organizations, schools must work to meet the expectations outlined by the

state. A significant component of this charge includes providing faculty members with support, through ongoing professional learning, that equips teachers to create impactful, equitable, and effective learning opportunities for an ever-evolving student body demographic. Improving student outcomes requires responsive, timely professional learning for teachers so that they are prepared to meet the needs of their students as they are. However, each teacher interprets this learning through the lenses of their own background, personal beliefs, previous experiences, and interactions with others that have shaped their perspective over time. Beginning at the state level and narrowing down to an individual teacher, education is unquestionably a human endeavor in every step and process. It is impossible to extricate the unique perspectives and influences that every stakeholder brings to the decision-making process, which directly impacts students. Digging into the questions of *what, why,* and *how* (Ormston et. al, 2013) can help shed light onto the complex, inter- and intrapersonal interactions in education that impact students in schools every day.

## Conceptual Framework

This research is built upon a framework of concepts taken from various theories on motivation. Conceptual frameworks differ from theoretical frameworks in that conceptual frameworks organize concepts from multiple theories (Green, 2014) into a collection of ideas and constructs, inclusive of the components most relevant to a particular set of research questions. Rather than relying on one single theory, a conceptual framework helps researchers to interpret individuals' social realities and provide understandings, instead of theoretical explanations, which focus more on causality and analysis, as in quantitative models (Jabareen, 2009). Selecting concepts

from theories of motivation allows for the examination of the “why” behind attitudes and behaviors, rather than the causes and effects that explain behavior. Understanding what motivates individuals’ choices, ideologies, and actions is critical in drawing out cross-cutting themes in qualitative inquiry.

In Wigfield and Eccles’ (2000) perspective on motivation, an individual’s beliefs about expected performance (i.e., how well they will do) and degree of value placed in an activity is reflected in their choice of, and persistence and performance in, various activities. According to Eccles et al. (1983), the constructs that define this theory are *expectancies* and *abilities*. Expectancies are defined as beliefs regarding how well one will perform on an upcoming activity, and abilities are defined as one’s self-beliefs about their competence in that activity (Eccles et al., 1983).

Ford et al. (2020) identifies components of social-cognitive theories of motivation to explain professional support in education. They cite the role of competency and self-efficacy in growing professionals: the more competent and well-equipped to perform a task, the higher one’s self-efficacy regarding that task will be. Autonomy is also relevant in motivation, in that decision-making is internal and aligns to one’s established goals and outcomes. Relationships and support networks also play a role in motivation. If individuals feel as if they have supportive relationships in place to support career growth, they will be more motivated to continue a growth trajectory. Along these same lines, the concept of relatedness--or feeling as if one has relationships with others who share similar experiences and can empathize--drives motivation. When affective needs like empathy from others are met, professionals are more likely to persist in career growth and development (Ford et al., 2020).

In their analysis of multiple theories of motivation, Hattie et al. (2020) identifies constructs common across theories. These constructs include self-efficacy and confidence, cognitive attributes such as self-regulation and self-thoughts, social comparisons and relatedness, and intrinsic, attainment, and utility value of tasks. Critical in all theories of motivation were the costs and benefits associated with the task or goal (Hattie et al., 2020).

The conceptual framework used for this research includes concepts drawn from these three studies of theories of motivation. Self-efficacy, task or goal valuation, utility, and relatedness and support in pursuing goals are all concepts that are resonant within each of these examinations of motivation. This conceptual framework guides the thematic analysis by providing constructs supporting a deductive analysis of the data. Teacher attitudes, behaviors, and experiences towards gifted education, as well as their engagement in professional learning is a cycle of self-beliefs, support, and valuation of a goal that provide rationale for subsequent motivation to change beliefs and practices. This framework supports the identification of potential relationships between perceptions of professional learning, changes to teacher behaviors in the classroom, and shifts in attitudes in order to leverage experiences and practices that could be useful in future professional learning around gifted education.

## Research Goals

While Texas has laid the foundation for educators providing gifted and talented services to be equipped with the requisite knowledge for successful teaching and learning through requiring 30 hours of professional learning on gifted and talented education topics, questions around the quality and impact of the various iterations of

these trainings. This research seeks to explore how teachers' attitudes, beliefs, perceptions, and behaviors are impacted by the current 30-hour training and add to the body of knowledge around what types of professional learning experiences have the potential to make the greatest positive impact to gifted and talented students and their teachers.

# CHAPTER 2

# LITERATURE REVIEW

## Educator Perceptions of Gifted and Talented Professional Learning

It is perhaps most useful to begin at the core of what drives teachers' actions in the classroom: attitudes and beliefs about the nature of education and their students. As constructs, attitudes and beliefs differ. It's important to understand the key components that define *attitudes* and *beliefs* in order to fully appreciate their reciprocal nature, as well as their impact in the academic environment. Beliefs are the ideas and understandings that an individual thinks are true, whereas attitudes are the emotions and affective impressions a person has around a topic or idea (Szymanski et al., 2018). The feelings (attitudes) and thoughts (beliefs) work together in a reciprocal way to drive behavior. Ongoing interaction between attitudes and beliefs plays a significant role in shaping classroom culture, communication with students, and planning for instruction by driving the choices teachers make every day. In their work examining teachers' attitudes and beliefs about gifted education, Szymanski et al. (2018) outline an example illustrating how, ."..if teachers have the cognitive misunderstanding that gifted children do not require special instruction, then they may have negative attitudes toward providing individual curriculum" (p. 34). This combination of negative attitudes and beliefs about gifted education could then, for example, cause the teacher to behave in a way that will not support regular differentiation for their learners who need it. By not providing students with the type of learning they need, educators send a nonverbal message to gifted and talented students that their academic needs are not important or deserving of the teacher's efforts. The subsequent instructional choices the teacher

makes may focus more on lower-level instruction and pacing that leaves gifted students bored and disengaged. In this example, the teacher's negative attitudes and beliefs do not set the stage for a classroom where all learners can make equitable academic progress. If schools wish to understand the ways in which they can support student growth and achievement for everyone, including those with advanced academic abilities, gifts, and talents, then examining teacher attitudes and beliefs is a useful place to begin.

## Sources of Attitudes and Beliefs

Because these constructs (*attitudes* and *beliefs*) presuppose behavior (Szymanski et al., 2018), it is critical to develop an understanding of where teacher's attitudes towards and beliefs about gifted education originate. The largest predictor of teacher attitudes towards gifted education is life experience (Berman et al., 2012); that is, whether the educator had experience as a gifted student or with a gifted family member, or previous interactions with other gifted individuals. Subjective experiences as the primary driver of teachers' attitudes towards gifted education leaves ample room for bias, and very little, if any, room for research-based knowledge from the field. In a study of pre-services teachers, Bain et al. (2007) found that approximately 76% of participants believed that gifted students would be successful in school without specialized services. This belief that gifted students do not need specialized services--presumably by virtue of advanced intellectual or academic ability--is prevalent among both pre-service and experienced teachers. Furthermore, many educators eschew the notion of "giftedness" altogether and feel that all students are gifted in one area or another (Berman et al., 2012; Tirri et al., 2002). With this knowledge, one must beg the

question of how teachers can be expected to meet the needs of gifted learners when a) they hold beliefs negating the idea that students identified for gifted services need specialized instruction; or b) “giftedness” is a relative idea and can be applied to any student across a variety of contexts. While there are many areas in which students may have exceptional abilities (e.g., athletics, fine arts, creativity), this research is focused on academic ability, and not all students possess the same degrees of academic ability. (*Ability* is not to be confused with *potential*. All students have the potential to learn and can do so using appropriate structures which help maximize their academic abilities.) If teachers believe that gifted students are not in need of academic intervention, or that giftedness is a nebulous concept which can be applied across all students and contexts, the implications for instruction do not seem favorable for gifted and talented learners.

It is clear how educator attitudes and beliefs can have a negative impact on the use of instructional practice that gifted students need to maximize their potential (Troxclair, 2013). Best-practice strategies for advanced instruction, including acceleration, curriculum compacting, ability grouping (see National Association for Gifted Children, n.d.) take time, conscientious planning, and effort on the part of the educator. When teachers feel as though their gifted students will “get it” without support, they view these strategies as an imposition on their time and efforts (Berman et al., 2012), and unfair to other learners in terms of how specialized resources are allocated (Tirri et al., 2002). This creates an issue of equity. Without effective instructional practices and planned, purposeful opportunities for advanced learning, gifted students lose out on the ability to make appropriate academic gains commensurate with their ability, let alone develop their gifts and talents over time.

Effects on the School Environment

The effects of negative teacher attitudes and beliefs on gifted education are far-reaching. Beginning at a state level, teacher behaviors that are a product of negative attitudes and beliefs impact student learning in ways that are in direct opposition with the objectives of public education in Texas:

> The mission of the public education system of this state is to ensure that all Texas children have access to a quality education that enables them to achieve their potential and fully participate now and in the future in the social, economic, and educational opportunities of our state and nation" (2 Texas Education Code §4.001, 1995).

Simply put, when the feelings and ideas teachers have towards gifted education are largely that these learners will be successful without purposeful instruction, that the time and effort required to plan effective learning opportunities for this group of students is not necessary or a "fair" use of resources, or that all students are somehow gifted, the subsequent impact in classrooms across Texas is not favorable for GT learners. The likelihood that these students will be able to achieve their potential is much lower, because teachers will likely not make instructional choices that include best practices that support continued academic gains for gifted students.

At the school and district level, teacher attitudes and beliefs towards gifted education affect not only the students' ability to fulfill their academic potential, but they also shape campus and classroom climate, and the social aspects of school. *Climate* refers to how an individual feels about and experiences the school (Kane et al., 2016); if gifted learners' needs are largely disregarded by the teacher, their school experience will likely be negative. Over time, these student experiences can become pervasive within and across classrooms and have a real impact on the overall climate of a campus

or school district. In terms of teaching and learning, the National School Climate Center (n.d.) reports that instructional strategies promoting academic challenge, individual attention, differentiated opportunities for demonstration of knowledge and skills, and an atmosphere conducive to dialogue and questioning all serve to develop and further a positive academic climate for all students. These are many of the same strategies that gifted students need to thrive; however, when negative teacher attitudes and beliefs drive teacher behavior away from including these provisions for GT learners, the school cannot support equitable academic growth for all.

In terms of the social and emotional aspect of school climate, educator attitudes and beliefs play a significant role. Research finds that many times, teachers hold negative conceptions of gifted students' social-emotional skills (Weyns et al., 2021), and view gifted students as defiant, insensitive, and social isolates (Geake & Gross, 2008). Accordingly, teachers also hold negative presuppositions about the relationship between the gifted student and the teacher (Weyns et al., 2021). If educators believe that students will exhibit poor behavior, or have difficulty interacting with peers, these presuppositions set the stage for an initial meeting between the teacher and their gifted learners to be overshadowed by negative expectations. Even if the teacher has not yet built rapport with these students and gotten to know them as individuals, they may approach interactions driven by their negative presuppositions, anticipating defiant or problematic behavior. Rather than allowing students' actual observed behavior and interactions to shape how the teacher builds relationships, these stereotypical beliefs can overshadow a potential positive relationship between the educator and their gifted students. It is easy to see how these preconceived ideas about gifted students' social

and emotional functioning and behaviors do not lay the groundwork for a positive school climate that is welcoming for this group of learners. *All* students need an environment in which they feel safe, accepted, and cared for, and these unfavorable preconceptions create a barrier in creating this climate for gifted students.

When teachers hold negative, stereotypical (i.e., defiant, poorly equipped to navigate social situations, emotionally unstable) beliefs about student traits and behaviors, they may also inadvertently create self-fulfilling prophecies in terms of gifted students' classroom behaviors. Certainly, when any student is met with overt or covert teacher communication that relay dislike or hostility, or expectations for unwelcome behaviors, they may feel alienated from the rest of the class for which the teacher has communicated a separate set of expectations altogether. Social-emotional stereotypes, shaped solely by teachers' personal beliefs and experiences with other gifted people (Berman et al., 2012) must be countered not only with factual information, but with opportunities for teachers to see gifted students as they do all the other learners in their classrooms; that is, as individuals with unique personalities and needs.

Finally, perhaps the most detrimental impact of teacher attitudes and beliefs towards gifted education is evident in the stereotypical conceptions of who or what a gifted student is. In a study of both pre-service and in-service teachers, Carman (2011) found that 85% of educators imagined a "gifted" student as White, and over half of the participants held stereotypical views of gifted students according to gender and ethnicity (male, White or Asian), interests (i.e., "nerd," "bookworm"), and even attributes such as glasses-wearing. Educators are less likely to identify characteristics of giftedness in non-Caucasian students, as well as students from low-income backgrounds, language

learners, or students receiving special education services (Peters & Engerrand, 2016). While this is problematic on many levels, in the context of this research it serves to underscore how deeply entrenched, biased, and uninformed teacher beliefs can be. The need for educator training and support in teaching gifted students is clear: for teachers to begin shifting their negative views of giftedness and gifted education practices, they must engage in professional learning that provides opportunities to counter uninformed beliefs (Troxclair, 2013). To best meet the needs of gifted learners and drastically reduce the detrimental effects of bias, teachers must have the opportunity to learn the pedagogy and practices necessary for identifying, serving, and developing the talents of all gifted students (VanTassell-Baska & Johnsen, 2007).

## The Student Experience

While this research focuses largely on the experience of the teacher, it would be remiss to omit the student experience from the larger picture of gifted and talented education. Student growth and achievement is the heart of all efforts in education, so it is vital to examine gifted education from the perspective of gifted students. The ways in which teacher attitudes and beliefs impact the classroom environment are clear; in addition, individual students' perceptions of these attitudes and beliefs affect motivation, academic achievement, and positive classroom experiences (Wilson, 2006). From the student's perspective, they are far less likely to engage in academic or social endeavors when they perceive negative feelings and expectations from their teachers. This disengagement may begin even before instruction, due to the unfavorable nonverbal communication between teacher and student outlined in the previous section. Students' views on gifted education services vary widely from engaged, to ambivalent, to

resentful, with attitudes and feelings changing over time (Hertzog, 2003).

Rowan and Townend's (2016) research on gifted students' school experiences show that many times the learner is bored, disengaged, underperforming, and may be socially isolated because their teachers simply lack the requisite skills and knowledge to meet their needs. Teachers' familiarity and facility with using instructional techniques that allow gifted students to participate in accelerated learning, higher-level thinking, and the development of advanced products (Rowan & Townend, 2016), as well as their understanding of the psychosocial influences on students' behavior (Gentry et al., 2011), are key factors in determining how successful an advanced learner will be in school. When students perceive their teachers as ambivalent or resentful of their needs, this causes a difficult internal conflict. Students feel that they must make a choice between settling for lower-level learning to please the teacher or fit in with their peers (Preckel et al., 2015), disengage from the learning environment completely, or develop maladaptive behaviors resulting from boredom. This perceived forced choice dilemma (Jung et al., 2010) can cause resentment towards the teacher, the class, and the overall school environment.

Academically, gifted and talented students frequently experience a mismatch between the curriculum and their abilities (Rowan & Townend, 2016), and these students are aware as early as first grade that their academic abilities in certain areas outpace the learning in their classroom in both depth and speed (Coleman et al., 2015). Cross (2014) refers to the mismatch between curriculum and instruction and student ability as "educational malnourishment" (p. 264). He uses this metaphor to explain how schools are starving GT learners of opportunities to develop their gifts into talents.

Gifted students report “waiting” in the classroom while the other students receive instruction over content that they have already mastered, feeling ostracized by others when they do participate and are clearly at a level of understanding that is well above most of the class, and developing a laissez-faire attitude towards schoolwork because their classes do not provide appropriate cognitive challenges (Coleman et al., 2015; Gallagher, 2001). Over time, the lack of interaction with content that is commensurate with students’ skill level, relevant, and meaningful (Gentry et al., 2011) will cause students to disengage from learning, become frustrated with their overall academic experience, and run the risk of underachieving and even dropping out of school (Siegle, 2013).

Gifted students thrive on challenge through novelty, flexible pacing, and content that integrates their interests (Gomez-Arizaga et al., 2020; Kitsantas et al., 2017). However, even in advanced courses, many gifted students report that their classes were not challenging (Gallagher, 2001), and that the only thing difficult about many courses’ contents was that the students had simply not learned the material yet. Once they received basic instruction, however, the learning was not challenging (Coleman et al., 2015). When these students are encouraged to think deeply and creatively about material that is relevant to them, they commit to tasks (Young & Balli, 2014) and feel as if the teachers have invested in their success through providing differentiated learning opportunities. However, when the teachers lack the will, skill, or combination of those two factors to integrate best-practice instructional strategies for GT learners, students’ experience learning in a general education classroom is not positive or productive.

## Training and Professional Development

Effective teacher training and development is key in building the skills needed to engage gifted students. Effective learning opportunities for both pre-service and in-service teachers are essential for ensuring that all students have both their educational and social-emotional needs met in the classroom. Unfortunately, teacher training programs seldom offer coursework as part of an education degree plan that digs deeply into gifted and talented education (Bain et al., 2007). Instead, most programs provide basic differentiation theories in tandem with other aspects of curriculum and instruction, so gifted education is only addressed partially or not at all (Dixon et al., 2014). If teacher preparation programs do explicitly address gifted education, student teachers receive, on average, only two hours of instruction related to differentiating for gifted students in the general education classroom (NAGC, 2015). Theory, strategies, and skills for teaching GT learners are conspicuously absent from many educator preparation programs, highlighting the notion that gifted education, overall, receives very little priority in the field today (Peters & Jolly, 2018).

What educator preparation programs lack, unfortunately, is rarely supplemented by ongoing professional development. In the Callahan et al. (2017) study of programs for the gifted and talented, elementary campuses offering professional development around gifted education reported it lasting anywhere from 15 minutes to four days per year. Secondary campuses reported less than five hours per year of gifted education professional development if it was offered at all. The most prominent topic of this reported professional development was general differentiation practices for gifted students in the regular classroom (Callahan et al., 2017).

This is problematic for many reasons. As discussed in a previous section, teacher attitudes and beliefs regarding gifted education are based largely on personal experience (Berman et al., 2012) rather than intentional learning informed by research and current best practices. Without professional learning targeted towards breaking down educators' biased views of GT learners and gifted education, and building up accurate knowledge and effective pedagogical skills, uninformed conceptions and ineffective practices will continue to perpetuate. Graffam (2006) tells readers that, "The path a person takes to become a teacher of gifted learners is significant: personal background, pre-service training, and professional reflection all help prepare the teacher for [their] task" (p. 130). Without pre-service training and professional reflection, personal background alone drives how teachers approach gifted education. Learning about generalized differentiation practices in a single professional development session does not provide adequate time or attention to internalizing and reflecting on effective differentiation. Furthermore, limiting the time dedicated to professional learning around effective pedagogy for gifted students does not allow for adequate training or professional reflection, leaving teachers' knowledge base biased and unbalanced.

If a teacher's pre-service preparation program does not contain learning around gifted education, new teachers often do not account for GT learners in their classrooms. Research by Bangel et al. (2010) revealed that pre-service teachers had not even considered the possibility of having gifted students in their classes, despite the prevalent reliance on general education classroom teachers for providing differentiation as the main programming structure for gifted and talented services (Rinn et al., 2020). An unprepared educator causes significant issues in identifying gifted learners, ensuring

that all students make appropriate yearly progress, and a variety of other problems (e.g., classroom climate, student behavior) that can arise when a teacher is not effectively equipped to work with this student population.

The disconnect here points to a critical issue in the current model of educator preparation. When future teachers work their way through a modular, seemingly disparate structure of coursework that does little to connect theory to practice until they are either preparing to or are entering the classroom for the first time, teachers are not set up for success (Berman et al., 2012). Regular, connected gifted education curriculum included in the student teacher's coursework, as well as training that frames the learning within a real classroom with real students, can help to better prepare pre-service educators for success in providing quality experiences for their gifted and talented students. When pre-service educator coursework is responsive to not only the nature and needs of gifted learners but is also developed using practices that engage and empower the educator, the result is meaningful learning that transfers into the classroom and improves the experience for both the teacher and their students.

In terms of ongoing professional development and training in gifted education, expectations vary significantly at both the state and local level (VanTassell-Baska & Johnsen, 2007). Nationally, 35 of 46 states with provisions for gifted and talented education require an additional endorsement or certification for teachers responsible for providing gifted education services (Rinn et al., 2020). In Texas, the Texas State Plan for the Education of Gifted/Talented Students (Texas Education Agency, 2019) requires teachers providing gifted education services to complete 30 hours of professional learning that includes the nature and needs of gifted students, identification and

assessment, and curriculum and instruction for gifted learners. According to the plan, teachers must complete this training prior to being given a gifted and talented teaching assignment. Teachers providing gifted services must also complete a yearly six-hour update that covers topics related to gifted education (Texas Education Agency, 2019). While these provisions certainly have the *ability* to combat the bias or lack of information that negatively impacts gifted learners in regular classrooms, the reality is that there is little oversight in the quality, accuracy, and utility of the information presented in the courses.

Actual content in the 30-hour courses may be determined by the local education agency (LEA) or regional support center, without consultation from policymakers or scholarly field experts. Utilization of the *Pre-K-Grade 12 Gifted Programming Standards* developed by the National Association for Gifted Children (Johnsen, 2019) or similar standards for gifted services, is optional for use in developing professional learning for teachers. This lack of standards-based planning, despite the importance of using standards and competencies to articulate proficiencies and outcomes when creating effective teacher professional development (Stephens, 2019), is pervasive. Districts and regional support centers may include any information, resources, and strategies for fulfilling state plan requirements. Here, the gap between research and practice is clear: even when carefully articulated expectations for teacher learning are established, there is no guarantee that the training will reflect these standards or even current research. Training that lacks best practices and up-to-date knowledge from the field stands to continually perpetuate inaccurate beliefs about gifted students and gifted education.

To set educators up to be successful educators of the gifted, meaningful learning

at the pre-service level must be a more significant component of educator preparation programs. Ongoing professional development should be a continual process, and those responsible for facilitating learning must be informed of current research around gifted and talented education, best practices, and pedagogy.

Developing proficient gifted and talented educators is a cycle that includes evidence-based teaching, targeted curriculum woven throughout pre-service coursework, and ongoing opportunities for best-practice, research-informed learning, and reflection throughout an individual's career (Smith & Sela, 2005). Effective training and professional development for teachers in gifted education can increase teacher confidence and self-beliefs regarding teaching ability (Bangel et al., 2010), and result in a more positive class climate for all students, not just those identified for gifted services (Hansen & Feldhusen, 1994). Quality teacher learning is a worthwhile investment in both teachers and students. It is important to continually reflect on opportunities to reform and improve current educator training practices so that both students and teachers have the tools necessary to fulfill their potential.

## Educator Attitudes and Beliefs about Professional Learning

While the relevance of effective professional learning is clear, once again, the role of teacher attitudes and beliefs is key in understanding how this learning is leveraged in the classroom. Learning must be engaging, relevant, and valuable to the learner in order to develop long-lasting knowledge and skills--this is true for both students and adults. It is unreasonable to explore strategies for improving educator training and professional development without first examining educator attitudes and beliefs regarding professional learning.

In a 1979 study examining teacher attitudes towards professional development, 46% of respondents indicated that they would like to participate in professional development to develop skills for working with gifted learners (Rubenzer & Twaite, 1979), and this sentiment echoes true decades later. Clearly, the desire and will to improve gifted education practices are there, but complexities surrounding how professional development is implemented have a significant impact on teachers' behaviors when it comes to this learning. Investigating the "why" behind teachers' motivations to engage in professional learning is key in identifying avenues for improvement.

One of these complexities deals with how and when administrators include gifted education in their campus and district professional development plans. Due largely to the prevailing myth that gifted students do not need additional supports to be successful (National Association for Gifted Children, n.d.) school administrators frequently choose professional development for teachers that focuses on content viewed as more critical, such as student assessment, instructional planning, and behavior management (Rowan & Townend, 2016). These are areas in which many newer educators must devote considerable time and effort into developing skills, so professional development targeting these topics will take priority as teachers seek to improve their craft. If ongoing teacher training does not include gifted education as an integral component of the "essentials" necessary for student and teacher success, educators may view added gifted education training as unnecessary or a distraction from more important work (Dixon et al., 2014; Rowan & Townend, 2016). This divide reaffirms the importance of including gifted education in developing a positive school climate (Kane et al., 2016);

when administrators establish and support structures that include meeting the needs of GT learners through prioritized professional development, this promotes a climate inclusive of all learners. Stand-alone learning for the sake of compliance could be perceived as a distraction or a drain on teachers' time. Instead, tenants of this learning are effectively included in professional development plans that integrate best-practice instruction for gifted learners with key strategies necessary for effective classrooms and delivered in an ongoing cycle. For example, assessment practices that include pre-testing not only help with compacting some students' instruction but planning effective intervention to fill gaps with others. Behavior management plans that consider student engagement in relevant content to prevent off-task behavior or acting out should encompass all students' engagement, regardless of academic level. Planning effective instruction should include opportunities for students to work with academically appropriate materials at a pace commiserate with their abilities, including gifted students. Strategic planning for including gifted education in professional development is important in creating positive attitudes and behaviors towards advanced learning, because teachers will see these strategies as an overall value-add for the whole classroom (Lassig, 2009). When training educators on instruction designed to support gifted and talented learners is siloed, becomes an afterthought or a compliance piece, and is not seen as an integral to the overall success of the district or campus, teacher attitudes and behaviors towards sustained engagement in this type of professional learning may not be positive (Cristina-Corina & Valerica, 2012)

Establishing and maintaining positive attitudes--the emotions and affective impressions a person has around a topic or idea (Szymanski et al., 2018) --is essential

in laying the foundation for effective gifted education professional development. An educator's affective needs are important in successful professional learning, and educators must have personal and professional goals that are clearly aligned (Lee & Ritchotte, 2019). Teacher training that considers where an individual is in their career development trajectory and their goals will increase the perceived value and utility of the learning. When professional learning simply repeats information or strategies without adding novelty or relevance, or reflects a differentiated approach to instruction, teachers view that learning as having very little value or use (Wycoff et al., 2003). Involving the educator is an integral piece of the development of professional learning, and taking a collaborative approach helps fulfill their affective needs in providing personal choice and some level of autonomy. Additionally, this practice models the same responsive approach to individual students' needs, necessary to run a highly effective classroom.

The "who" at the center of professional development efforts is also important in shaping educators' attitudes and beliefs. Professional learning that is student-oriented increases the perceived value of the content knowledge or skills being taught (de Vries et al., 2013). When learning opportunities are student-centered, teachers invest in learning how strategies and skills boost achievement and engagement. Moreover, when the student is the focus of professional development, teachers will be less likely to approach the learning from a deficit perspective (i.e., feeling as if they are being punished because they lack knowledge and skills), which supports positive self-efficacy. When teachers are given tools, many of which can be used flexibly with students at varying skill levels, to grow their gifted learners, the goal is to implement those tools so that students can meet their potential. From a deficit perspective, teachers may see

training as punitive, pointing out what they cannot do. Carefully framing professional learning around the students and ways in which effective instructional strategies can be leveraged for a variety of learners helps to generate positive associations with opportunities for gifted education learning. In this same vein, teacher biases can be confronted through demonstrating how even within gifted populations, student needs vary and require differentiation. Demonstrating the ways in which many students in the classroom directly or indirectly benefit from best gifted education practices may also work to shift negative educator attitudes and beliefs.

Understanding teachers' feelings towards professional learning must also consider the system in which the learning is framed and delivered. Palermo and Thomson's (2019) research shows that teachers' perceptions of student needs are influenced by the requirements of their institution, so if a school district or educator preparation program does not emphasize the importance of gifted education, there is very little impetus to engage in gifted education professional development. Teachers view professional development as most effective when, among other factors, it is integrated meaningfully into the everyday life of the school (Garet et al., 2001). When gifted education professional learning is immediately transferable to the classroom (Wycoff et al., 2003) and highly visible schoolwide (Garet et al., 2001), teachers will be more likely to engage in similar training in the future, thus perpetuating an ongoing cycle of professional development and growth. The Texas State Plan for the Education of Gifted/Talented Students (Texas Education Agency, 2019) requires counselors and administrators with direct supervisory responsibilities for gifted education to engage in six hours of professional learning and requires gifted education training for local board

trustees. This is an example of how a culture of gifted education can be developed within a school district, and, if the training is targeted and effective, can support teacher engagement and application of best-practice gifted instruction. The system in which educators implement their professional learning is an important influencing factor in understanding attitudes and beliefs, and it is critical to engage that system in embracing and addressing the need for effective gifted teaching and learning. When all stakeholders prioritize gifted education, strides can be made in improving the cycle of educator growth and development.

## Effective Support for Teachers of Gifted Students

Effective support for teachers of gifted students requires an understanding of adult learners' needs so that educator preparation coursework and ongoing professional development can be structured in such a way that participants are able to maximize their outcomes. Adult learning opportunities are most effective when the instructor is a collaborative colleague, demonstrating respect and understanding to participants (Carlson McCall et al., 2018). Using a constructivist-interpretivist approach including inquiry, discovery, and focusing on strategies for critical thinking and complex problem solving (Darling-Hammond et al., 2017) helps adult learners make meaning and apply that meaning to their classrooms. Interactive strategies, such as group discussions and regularly embedded opportunities for feedback throughout instruction based around the backgrounds and characteristics of the learners (Bengo, 2020), are also effective in ensuring the learning is relevant and engaging. When teachers can connect to professional learning in a way that underscores the relevance of theories and practices in an authentic context, the likelihood that transformational change will take place in the

classroom increases. The creation of professional learning for adults must be approached in a manner that is respectful to participants, mindful of their context and environment, and collaborative in nature. When participants construct meaningful learning, the time spent engaging in such activities is a sound investment.

Understanding how to support teachers of gifted students begins with understanding the needs of gifted students themselves. Gifted learners need opportunities to practice deep inquiry, engage with rigorous, challenging activities, and practically apply their learning in real-world contexts (Bangel et al., 2010). These students appreciate novel approaches to instruction and are engaged by high levels of academic instruction that connect to their real lives (Gomez-Arizaga et al., 2020). The Texas State Plan for the Education of Gifted/Talented Students requires curriculum and instruction to include flexible pacing, learning experiences that culminate in the development of advanced products or performances, opportunities for independent research, and opportunities to accelerate in areas of strength (Texas Education Agency, 2019). The strategies and practices listed here are general provisions for gifted learners; there are a great many additional pedagogical best-practices. While this may seem overwhelming--and certainly is, without adequate training--there are several important professional learning strategies to consider that support regular implementation of these practices.

High quality teaching for gifted students, particularly through differentiation provided in the general education classroom, requires teachers to consider both the individual and the class's learning at the same time (Graffam, 2006). This is a skill that requires educators to be proficient in assessment practices which yield data to drive

instruction, being flexible with the pace and scope of lessons, and including both choice and appropriate content for a variety of learners throughout units of study. Effective differentiation is no small task and can be daunting for new educators with little to no experience practicing these skills with GT learners in mind. For pre-service teachers, training opportunities that include practice in implementing the learning in a real-world setting are beneficial and serve to support educators during their first year in the classroom (Boyd et al., 2009). This means learning opportunities that require candidates to examine data, and practice pedagogy designed to advance gifted learners explicitly. For returning educators, planning structures that require educators to be reflective of how their differentiation practices impact student achievement in the classroom, including that of gifted students, support ongoing learning and development. Practice, active planning, and reflection are key in effectively differentiating in the classroom for gifted students. Professional development that implements these components and includes many hours devoted to differentiation not only positively impacts students, but also increases both actual teacher efficacy, as well as the teacher's self-efficacy beliefs (Dixon et al., 2014). Once again, effective professional learning serves to shift teacher attitudes and beliefs.

Another useful strategy is making sure that opportunities for hands-on learning are embedded into professional development. Activities such as role-playing and case study assignments using their actual students (Lee & Ritchotte, 2019) may help teachers of gifted learners develop sensitivity to and empathy for their students, as well as to understand and predict certain student behaviors (Bishop, 1968). This is important because understanding how best-practice pedagogy affects both the gifted learner, and

the classroom environment at large helps to dispel the stereotypical beliefs and biases held by both pre-service and returning teachers (Troxclair, 2013). Professional development practices that aid in bridging pedagogy to practice include collaboration, feedback, and reflection (Darling-Hammond et al., 2017; Lee & Ritchotte, 2019). Professional learning should balance pedagogy with content knowledge through focusing on strategies for critical thinking and complex problem solving (Darling-Hammond et al., 2017), as well as strategies to implement highly structured frameworks for curriculum and learning activities (Brigandi, 2019).

Because the structures discussed here underlie complex, ongoing learning experiences, professional development should also feature opportunities for reflection and feedback through regular follow-up check-ins. Educators need dedicated time to debrief, collaborate with peers, and engage in mentorship opportunities to ensure that new concepts and practices are implemented with fidelity (Wycoff et al., 2003). These experiences widen the frame of reference for what gifted education is and does and provide educators with needed resources, tools, and peers to help reshape and hone effective instructional practices for GT learners. The investment in time spent in the reflection and feedback component of professional learning is highly valuable. When teachers can reflect on and discuss their learning around gifted education topics, attitudes and behaviors towards teaching GT learners transform (Stephens, 2019). Transformational change requires time needed to process and contextualize learning to develop new connections and understandings (Lee & Lee, 2018), which will then allow teachers to make authentic and lasting changes in the classroom.

It is clear that providing ongoing opportunities for learning and reflection, and

targeted, high-impact strategies for teaching gifted education (VanTassel-Baska et al., 2021) will result in a shift in educator attitudes and behaviors, and subsequent positive changes for GT learners. If the goals of education in Texas and expectations outlined by the Texas State Plan for the Education of Gifted/Talented Students are to be realized, it is imperative that the educator attitudes and beliefs, as well as preparation programs and professional development, are critically examined. Understanding where misalignment, missed opportunities for learning and support, and misunderstandings lie will help the education community to develop structures and solutions that better serve students and teachers.

# CHAPTER 3

# METHODS

## Qualitative Research Design

The questions this research seeks to investigate are rooted in people's attitudes and beliefs and lived experiences in their professional roles as educators. These constructs are complex and unique to individuals and require investigative methods which let me dig deeply into participants' interactions and behaviors. Qualitative research allows for such systematic inquiry into how people experience context-specific phenomena, and how these experiences shape subsequent interactions, relationships, and organizations. This methodology allows the researcher to focus on key events and experiences and examine outcomes from the perspectives of the individuals involved (Teherani et al., 2015). As I seek to understand relationships between beliefs, attitudes, and behaviors of educators, situated in their unique experiences in different school environments, it is optimal to employ qualitative research methods so that the analysis, ."..retains complexity and nuance and respects the uniqueness of each participant or case as well as recurrent, cross-cutting themes" (Ormston et. al, 2013, p. 4). Employing qualitative methods in this research provides the tools necessary for investigating the highly social world of education through an in-depth analysis of the personal and organizational factors that influence individuals' attitudes, beliefs, and behaviors

## Philosophical Perspectives and Paradigms

Rigorous qualitative research requires alignment between beliefs behind the approach to research, the research questions, and the qualitative approaches themselves (Teherani et. al, 2015). Employing qualitative methods supports this

research, as evidenced through Guba and Lincoln's (1994) strategy for determining which paradigm best guides a methodological approach through asking ontological, epistemological, and methodological questions.

## Paradigm Selection

The ontological questions ask about the nature of reality, and whether it can be precisely captured and quantified through methods associated with the positivist paradigm. A core component of this research involves teachers' attitudes and beliefs towards gifted education. As previously discussed, the largest predictor of educator attitudes towards gifted education is life experience (Berman et al., 2012), which is highly subjective. Based on their collection of unique experiences, educators form beliefs about the nature of gifted education ranging from whether it is actually a service necessary for students to be successful, to the notion that every student is gifted in some way. The individualized collection of attitudes and experiences that shape an educators' beliefs about the reality of gifted education is difficult to quantify, feature many interrelated components unique to specific contexts, and vary widely from one person to another.

Another key component of this research examines how educators approach and effectively operationalize both pre-service and ongoing professional learning. For new educators, personal background, pre-service training, and professional reflection prepare them to step into the classroom (Graffam, 2006), and these experiences vary on both the individual and organizational level. Just like attitudes and beliefs, no two people share the same personal background; one's background is a unique collection of experiences and influences. Pre-service educators in the same preparation programs

may share courses, texts, and even field opportunities. However, when educators come together in a school setting, their collection of disparate training experiences result in significantly different attitudes and beliefs towards gifted education, even within the same grade level or team. Because educator preparation programs may either completely omit or feature courses covering gifted and talented learners that vary significantly in their scope or availability (Peters & Jolly, 2018), teachers fall back to personal experience.

After educators enter the classroom, professional learning covering the needs of GT learners is wholly dependent on the campus or the local resources available (Callahan et al., 2017). Despite the 30-hour requirement outlined in the Texas State Plan for the Education of Gifted/Talented Students, educators not assigned to provide services are not required to be trained. When determining what types of professional development in which to invest, school administrators frequently choose learning that focuses on student assessment, instructional planning, and behavior management (Rowan & Townend, 2016) because it is viewed as critical for all students. Frequently, professional development selections that capture the needs of the largest body of faculty take precedence over the needs of smaller, more nuanced groups such as educators providing gifted and talented services. Again, this selection process is viewed through the lens of school leadership with their own ideas and beliefs about what will benefit their academic community, and these personal biases affect the opportunities available to meet the needs of the educators of GT learners.

In this research, the nature of reality is highly contextualized to each individual and their unique background. Educators' backgrounds are a culmination of personal

experience, pre-service training, and ongoing professional learning, all of which are shaped by the decision and influence of others. Isolating variables for quantitative measurement omit the critical role that individuals' backgrounds and experiences have in the business of education. The nature of reality, therefore, in this research must acknowledge the subjectivity of the collection of experiences that shape educator behavior.

The epistemological questions ask about individuals, and whether an objective reality exists to the "knower" (Guba & Lincoln, 1994). These critical questions ask whether reality is a construct with clear parameters, with experiences falling outside of those parameters as false, or is reality a subjective construct, specific to individuals in context-specific situations? Epistemology also directly impacts the selection of both conceptual frameworks (Collins & Stockton, 2018) and methodology. Because the nature of the reality examined by this research is subjective, it follows that a concrete, objective reality does not accurately reflect what exists to the "knower." Understanding that both ontology and epistemology indicate a highly personalized and biased version of reality provides a solid foundation for identifying a conceptual model and methodology, both of which are discussed later in this chapter.

Guba and Lincoln (1994) tell readers that if there is truly a "real" reality, it must be perceived by an observer objectively detached from the reality so that they can see what is "real" and what is not. In the classroom, "reality" changes as students grow, demographics change, needs shift over time, and the educator develops professional knowledge and skills. Education is a dynamic field, and reality changes over time. Examining the qualities of varied realities in the classroom supports a more detailed

understanding of how many different lived experiences impact educators in a variety of ways and adds to the depth and richness of what can be known about teaching gifted and talented students.

Effective training and professional development for educators of the gifted impacts affective factors in educators (i.e., positive attitudes, confidence and self-beliefs regarding ability) (Bangel et al., 2010; Szymanski et al., 2018). This research, examining the development of individuals' affective traits through professional learning and experience and their impact on an organization, requires participants to reflect on their thoughts, attitudes, and behaviors. In this case, it would be very difficult for that individual to be a detached observer. This research seeks to understand the "why" and the "how" behind supporting teachers in developing and utilizing best-practice strategies when providing gifted and talented services, and doing so requires a thorough examination of the complex human factors that affect the classroom environment. The epistemology behind this inquiry, in tandem with the ontology, make evident the highly individualized experience of the "knower" and subjective nature of reality in the education arena, necessitating an approach to research that allows for exploration of many varied social worlds and experiences.

The final set of questions ask how the researcher goes about using ontological and epistemological understandings about the nature of the research questions and participants to best select methods for "knowing" (Guba & Lincoln, 1994). This methodological inquiry allows researchers to identify a paradigm from which to pursue their exploration and choose an appropriate method or set of methods for "knowing." This research follows the constructivist-interpretivist paradigm, which allows for multiple,

equally valid realities constructed in the mind of the individual (Ponterotto, 2005). The constructivist-interpretivist paradigm allows for multiple realities through individuals' mental constructions of their specific, local worlds. While each individuals' reality is unique and contextualized, this paradigm does acknowledge that many individuals may share elements of reality (Guba & Lincoln, 1994)

The constructivist-interpretivist paradigm supports the use of qualitative methods because it necessitates interaction between and among researchers and participants to identify and refine constructs based on the unique and personal nature of each reality (Guba & Lincoln, 1994). Because an objective reality does not exist within the confines of these research questions, meaning must be co-constructed through interaction between the researcher and the participants (Ponterotto, 2005). Qualitative methods that allow for a back-and-forth exchange between the researcher and participants, and the examination of important texts associated with the research questions, best support the questions this research seeks to investigate.

## Participants

This research utilizes a maximum variation sampling procedure. Through this approach, participants are selected based on how well they maximize the diversity among responses to the research questions (Cohen & Crabtree, 2006). Participants are identified through a survey soliciting participation distributed through the Texas Association for the Gifted and Talented (TAGT). The Texas Association for the Gifted and Talented is a statewide advocacy and professional development organization dedicated to supporting gifted and talented education in Texas, and members include educators, administrators, university professionals, and parents. In this case,

participants are teachers, gifted and talented program administrators, and other professionals actively employed within the field of gifted and talented education. The purpose of narrowing the focus of interview participation to only people employed in K-12 gifted education serves to isolate the phenomenon under investigation to the experiences of those who have been directly responsible for providing gifted and talented services in the school setting. Because TAGT's membership is concentrated in larger, urban areas (TAGT personal communication), it is particularly important to identify respondents willing to participate who are from smaller, suburban, or rural districts so that there is a variety of representation in the interviews.

This research design requires at least three participants (Englander, 2012), with solicitation discontinuing once the data gathered has reached saturation. An ideal sample size that would allow for maximum variation across participants and without reaching saturation is 12-15 (Boddy, 2016). When data has reached saturation, responses no longer help illustrate relationships between ideas or experiences or add to the richness of the themes; rather, participant responses are simply repetitive (Fusch & Ness, 2015). As the researcher conducts interviews and continues to identify respondents for participation, it is important to pay attention to instances of repetition in interviews. When information begins to repeat and there is less and less differentiation between participants, the data has reached a saturation point. When this occurs with a diverse collection of participants, the researcher will stop collecting responses from new participants and focus on analyzing the data at hand (Ishak, et al., 2014).

The interviews used for this research provided a number of unique and varied insights into gifted and talented professional learning. I interviewed 10 professionals

actively employed in the field of gifted and talented education, including 8 women and 2 men (see Table 1). Roles of interviewees included gifted and talented or advanced learning teachers, consultants, and school or district administrators overseeing gifted and talented and/or advanced learning services. Seven participants identified their districts as suburban; one identified their district as rural, and two identified their districts as city.

Table 1

*Participant Demographics*

| ID | Sex | Race/ Ethnicity | Role | Age Range | Location | # Students |
|---|---|---|---|---|---|---|
| 1 | Female | White (Caucasian) | Administrator | 41-50 | City | 2000+ |
| 2 | Male | White (Caucasian | Consultant | 31-40 | Rural | 2000+ |
| 3 | Female | Asian/Caucasian | Teacher | 51-60 | Suburban | 2000+ |
| 4 | Female | White (Caucasian) | Specialist | 41-50 | Suburbian | 2000+ |
| 5 | Female | White (Caucasian) | Specialist | 41-50 | Suburban | 2000+ |
| 6 | Female | White (Caucasian) | Administrator | 41-50 | Suburban | 2000+ |
| 7 | Male | White (Caucasian) | Teacher | 41-50 | Suburban | 2000+ |
| 8 | Female | White (Caucasian) | Administrator | 51-60 | Town | 2000+ |
| 9 | Female | White (Caucasian) | Teacher | 41-60 | Suburban | 2000+ |
| 10 | Female | White (Caucasian) | Teacher | 31-40 | Suburban | 2000+ |

Each participant shared different insights and experiences, particularly those whose roles within the field of gifted education have changed throughout their careers. These perspectives provided invaluable feedback in piecing together a picture of how educators are prepared to serve students through gifted education services. However, several key common experiences, feelings, and ideas manifested across interviews, which ultimately led toward saturation in the interviews. Based on interview saturation, advice from a field expert (Mun, R., personal communication, February 14, 2023), and

the literature's guidance around three to fifteen qualitative interviews (Boddy, 2016; Englander, 2012), I determined that ten interviews solicited sufficient data to conduct an analysis that would yield the thick, rich descriptions needed for effective thematic analysis.

## Materials

### Participant Screener Survey

Requests for participation in this research were sent via email and forum discussion through partnership with the Texas Association for Gifted and Talented (TAGT), the state advocacy organization for gifted and talented education. Membership in TAGT includes teachers of gifted and talented students, school administrators, advanced learning coordinators and directors, gifted education consultants, professional learning experts, parents of gifted learners, and university-affiliated individuals. The organization encompasses members from both in-state and out-of-state. Most active members of TAGT are from large, urban areas of Texas (TAGT personal communication).

This research utilizes a digital form requesting participation and screening for participants. Here, respondents indicate whether they are now or have been providers of gifted and talented education services; whether they had completed the required 30-hour training required by the state; whether their school is urban, suburban, or rural; their Regional Service Center affiliation; and whether they would be willing to participate in an interview. The form also outlines the research's purpose and the data's use. Interview requests will be sent to participants who indicate that they have been providers of gifted and talented education services, who have received the 30-hour

training, and who represent a variety of area demographics. Participants who indicated that they would be willing to participate in the research were contacted to set up interviews via the Zoom online video conference platform.

## Educator Interviews

Educators were interviewed using a semi-structured interview protocol. Semi-structured interviews pose a set of pre-established questions and allow the interviewer to use flexible probing techniques to dig more deeply into participant responses (Rubin & Rubin, 2005). Probing allows the interviewer to explore additional questions generated by participant responses (Bryman, 2004) and allows for a natural, conversational flow to the interactions between the interviewer and participant. These types of interviews allow for a close investigation of each participant's perspectives, experiences, and motivations, which provides insight into each person's uniquely constructed social worlds (Lewis & McNaughton Nichols in Ritchie, et al., 2013).

Interview questions were developed around the research questions driving the study. The questions are designed in such a way that they solicit open-ended responses and encourage participants to openly reflect on their thoughts and experiences. Language that encourages participants to *describe* and *reflect*, as well as to elaborate and explain, encourages respondents to provide a detailed account of their thoughts, feelings, and experiences. The interview questions seek to solicit feedback on educators' experiences in their preparation programs, their impressions on the 30-hour training they received, professional development opportunities that have impacted their role in educating gifted and talented students, as well as the types of professional learning that they think would be beneficial in working with gifted learners. Questions

include items such as, “Reflect on when you began working in gifted and talented education. Did you feel adequately prepared, and why?” and “Share some words or phrases that you think appropriately describe working with gifted and talented students.” Questions that have the potential to generate patterns of shared educator experiences, and then reflect upon those experiences through each participant’s individual lens (Graffam, 2006) will yield thick, rich descriptions that paint a vivid picture of both unique and shared experiences.

Interviews were conducted via the Zoom video conferencing platform and recorded, with the participant’s permission. Zoom provides options for video and audio recordings of interviews. Transcription of these interviews was outsourced via a third-party transcription service, Datalyst. Throughout the live interview, I also actively took notes on key points to revisit during analysis and engaged in self-monitoring for potential instances of bias in interpreting participant’s responses.

### Professional Development Course Descriptions

Documents analyzed in this research include descriptions of the required 30-training for Texas teachers providing gifted and talented services. Descriptions of the 30-hour training modules provided by Regional Service Centers (RSCs) are available on the RSC’s web site or by request through the RSC.

## Data Analysis

### The Phenomenological Interview Design

This research utilized a phenomenological interview design in which data from educator interviews were examined through thematic analysis. A phenomenological method is a qualitative tool which focuses on the subjectivity of others (Englander,

2012), as well as the intersubjectivity in which a shared reality is situated within a larger community (Zahavi, 2001). The phenomenological method allows researchers to examine a phenomenon—in this case, educators' experiences associated with gifted and talented education--with respect to the varied experiences and perceptions of reality that each participant brings into the research (Denzin & Lincoln, 2008).

The phenological interview focuses on the interpretative nature of the phenomenon being studied (Creswell et al., 2007). Because the questions that drive this research seek to explore the experiences and perspectives of professional learning on educators, and the subsequent impact in the classroom, it is necessary to select a methodology that will enable the researcher to dig deeply into multiple participants' feedback and perspectives, while remaining situated in the context of the school environment. Phenomenological interviews are developed to provide first-person accounts of specific phenomena, and may also include historical context (i.e., changes to education best practices and ongoing, developing professional knowledge) that explains the ways in which an individual reflects upon their past experiences (Pienkos et al., 2021).

## Thematic Analysis

Teacher interviews were analyzed using thematic analysis. According to Clarke and Braun (2017), "Thematic analysis (TA) is a method for identifying, analyzing, and interpreting patterns of meaning ('themes') within qualitative data" (p. 297). This method is most appropriate for analyzing phenomenological interviews because it allows the researcher to identify patterns and themes across individuals' responses that provide information on their experiences, perspectives, and behaviors (Clarke & Braun, 2017).

In the process of thematic analysis, the researcher reviews both the transcripts of interviews and visual recordings to identify patterns in the data. Repeated, purposeful analysis of participants' language and nonverbal communication (i.e., movement, meaningful silence, visible emotion) sheds light on patterns across teachers and individuals' nuanced interpretation of the world of education. While the spoken words in the interview provide much of the data yielded through thematic analysis, it is key to note the information that can be found in the unspoken language of the interview. This tacit data, or the information provided through nonverbal communication (for example, whether a certain statement is communicated with conviction or with hesitation; tone of voice; facial expressions) (Høffding & Martiny, 2016) can shed light on deeper meanings, or help the interviewer guide probing questions.

Braun and Clarke (2006) outline six phases of the thematic analysis process. In Phase 1, the researcher transcribes, reads, and rereads the data to become familiar with it. The researcher may also make notes on their initial thoughts and ideas. Phase 2 involves generating initial codes in a systematic way across the data. Coding involves examining the data, identifying words and phrases which occur frequently across the text (Joffe & Yardley, 2004), as well as noting possible associations with one another. For example, if participants use "stressed" in the same sentence as "gifted students" across interviews, the researcher may label this pattern as a code. In Phase 3, the researcher searches for and collates codes into potential themes (Braun & Clarke, 2006). A theme, according to Joffe and Yardley (2004) is a specific pattern that the researcher identifies in the data. Codes come together in Phase 3 to begin to organize the codes into meaningful units.

Phases 4 through 6 involve critical analysis of the identified themes. In Phase 4, the researcher reviews the themes in relation to the codes and the data set as a whole. Phase 5 defines and names the themes. To accomplish this, the researcher engages in constant analysis of the nuances of the themes in order to name and construct a definition for each. Phase 6 involves organizing the themes into a report that relates the findings back to the literature and research questions (Braun & Clarke, 2006).

The end result of thematic analysis identifies and highlights the most meaningful collections of data within a given set (Jaffe, 2012). Using a thematic analysis strategy, the researcher gains insight into the lived experiences of the educators participating in the interview. Themes identified through this analysis can provide insight into how teachers, as individuals, develop and act within the school environment, and the ways in which those interactions can impact students.

## Inductive Coding

Data from the thematic analysis of participant interviews were coded using an inductive approach. Inductive coding is a data analysis process that allows themes to emerge organically, without trying to fit findings into pre-established themes outlined by the literature (Braun & Clarke, 2006). In this coding process, the researcher "sees" key moments in the data that they can recognize across descriptions of phenomena, and that add to the richness of the identified themes (Boyatzis, 1998). Allowing themes to emerge, rather than fitting participants' responses into a priori codes allows the data to preserve the unique attributes of each lived experience and tell the "truest" version of how professional learning has impacted both the teacher and the school environment.

Table 2

*Coding Structure and Frequency*

| Overarching Themes | Subthemes | Second Cycle Codes | First Cycle Codes | Freq |
|---|---|---|---|---|
| Utility of Professional Learning | Responsiveness | Applicability | Professional learning is content-related and includes flexible strategies | 13 |
| | | | Connection to student population/content area | 7 |
| | | | Key to learner's role | 7 |
| | | | Identification and Assessment module/identification practice | 4 |
| | | Relevance | Research-based learning helps to bridge gap between research and practice | 9 |
| | | | Supported through state and national professional learning | 10 |
| | | | Collaboration with peers | 6 |
| Shared Control of Learning | Impact in the Classroom | Differentiation | Most useful learning for teachers | 4 |
| | | | Teaching with depth and complexity | 6 |
| | | | Scaffolding | 4 |
| | | | Acceleration | 2 |
| | Student/Teacher Partnership | Differentiation | Requires understanding of domain and/or context-specific nature of giftedness | 5 |
| | Understanding and Honoring a Diverse Student Body | Manifestations of Giftedness | Giftedness across cultures | 3 |
| | | | Giftedness in poverty | 2 |
| | | | Gifted emergent bilinguals | 2 |
| | | | Twice exceptionality | 1 |
| | | | Underachievers/selective producers | 6 |
| | | | Openness to experience/curiosity | 5 |
| | | | Intelligence | 2 |
| | | | Precocious | 5 |
| | | | Creative | 5 |

*(table continues)*

| Overarching Themes | Subthemes | Second Cycle Codes | First Cycle Codes | Freq |
|---|---|---|---|---|
| | | Student-Led Learning | Student passions and interest inspire learning | 2 |
| | | | Allow students to make complex connections and share unique perspectives | 6 |
| | | | Engagement | 7 |
| Understanding the Whole Student | Social and Emotional Pedagogy | Affective Needs | Social/emotional components to gifted education | 6 |
| | | | Ensuring whole-student growth and safe space for authentic expression | 4 |
| | | | Nature and Needs foundations module | 2 |
| | | | Student traits such as perfectionism, asynchronous development | 8 |
| | Learning from Shifting Lenses | Gifted Perspective-Taking | Self as gifted | 6 |
| | | | Develop improved understanding of affective and academic needs via prior experience with gifted students | 8 |
| | | | Learning unique needs of diverse students | 2 |
| Long-Term Career Growth | Personal Investment and Engagement | Fulfillment | Professional growth and development evident in the classroom | 6 |
| | | | Career enjoyment | 5 |
| | | | Intrinsic motivation to learn | 4 |
| | | | Feeling excited, motivated, and/or engaged | 4 |
| | Dynamic Nature of Effective Instruction | Challenge | Managing the classroom so students can be self-directed learners | 3 |
| | | | Student may know more than the teacher | 4 |
| | | | Dynamic nature of students' knowledge and academic and affective needs | 4 |
| | | | Exhausting | 2 |
| | | | Teacher frustration | 5 |
| Role of Support Networks and Connections | Importance of Feedback and Modeling | Role Models or Mentorships | Individual mentors within local gifted community (campus, district, area) | 5 |
| | | | University professors or prominent figures in the field | 6 |
| | | | Experience with inspirational teacher as a student | 1 |

## Coding the Data

Table 2 shows how I analyzed the data and chunked similar ideas, feedback, and experiences into codes over a first and second cycle of analysis. These codes are presented in Table 2 and provide an outline of how I approached and organized the data in order to make meaning and eventually identify primary and minor themes.

"Applicability," one of the two most prevalent codes, appeared 31 times across interviews. This code encompasses the perceived utility of professional learning, as well as the ability for the interviewee to immediately apply the learning in a useful way in their gifted education role. Using the concepts of utility and application, I was able to group instances of applicability together to identify this most frequently occurring code. Other characteristics of applicability includes content-specific nature of professional learning, the inclusion of flexible instructional strategies, a direct connection to the participant's particular population of students and learning that is essential to further developing the participant's current role.

The next code, which also appeared 31 times across interviews, is "manifestations of giftedness." I purposely identified this wide term in order to cover the many demonstrations of giftedness, talent development, and situation-specific manifestations of gifted behaviors that respondents cited in their interviews. Repeatedly, most interviewees explicitly noted that students manifest their gifts and talents in different ways and in different contexts. Respondents did cite traditional manifestations of giftedness, such as intelligence, curiosity, and openness to experience (Renzulli, 2002). Many responses acknowledged too that giftedness may look different based on the social or cultural background of the student, or whether the student comes from

poverty. Gifted underachievers or selective producers were also mentioned in several interviews, which illustrates that most participants in this research had developed a nuanced understanding of the various ways in which students may manifest traits of giftedness, although it remains unclear whether this is a function of professional learning, experience, or a combination of the two.

"Relevance" was the second most frequent code (appearing 25 times) identified in the data. Manifestations of this data include feedback around research-based practices, discussed on a small (local gifted and talented education cooperatives) scale, the state level (through organizations like TAGT), and nationally (through organizations such as NAGC), and professional learning that allowed the interviewee to collaborate with their peers in the field and provided information to bridge gaps between research and practice. Descriptions of learning may be described interchangeably as *applicable* and *relevant*, which is why I sought to operationalize these codes in ways which were specific to the utility ("applicability") versus the research-based ("relevant") nature of the feedback. Interviewees repeatedly stressed the importance of making explicit connections in professional learning to research-based best current practices in the field of gifted education. Simply because one could immediately apply a new strategy or idea does not mean that that learning has been informed by scholarly research. In these interviews, it was very clear that application was seen by participants as separate enough from relevance that two separate codes were warranted.

Participants referenced "fulfillment" 24 times through descriptions of professional growth and development evidenced in the classroom; career enjoyment; an ongoing intrinsic motivation to learn; and descriptions of feeling excited, motivated, and/or

engaged in their day-to-day work. Enjoyment, excitement, and engagement are all generally overt manifestations of fulfillment, while “intrinsic motivation to learn” may be more ambiguous. I coded evidence of professional growth and development as fulfillment because it reflects personal satisfaction as well as the motivation to continue to seek out new learning within the field of gifted education. Recalling Wigfield and Eccles’ (1993) perspective on motivation, expectancies and abilities dictate persistence and performance in activities; persistence in professional learning due to intrinsic motivation could be viewed as a recursive manifestation of expectancies for improvement in teaching practices and subsequent increased abilities. Continually engaging in professional development due to an intrinsic motivation to learn may be interpreted as fulfillment via ongoing motivation. All of these descriptors manifest participants’ overall fulfillment with their roles in the field of gifted and talented education, making this important code manifested in the data.

“Differentiation” is the next identified code, which appeared 21 times across the interviews. This code encompasses feedback that acknowledges the domain-specific nature of students’ gifts and talents, and the resulting need for teachers to modify the process, content, and products of their teaching in order to meet these varied learning needs. When referring to differentiation, respondents also acknowledged that students still required direct instruction around some topics, and that this instruction should be built around existing student knowledge and the requisite background for learning to support further independent exploration. Most interviewees referred to the Curriculum and Instruction module* of the foundational 30-hour coursework, which contains the

* "Curriculum and Instruction” is the blanket term for this module in the Texas State Plan for the Education of Gifted/Talented Students; see Table 1 for other examples of how RSCs refer to this module.

bulk of professional learning focused on some form of differentiation, as the most useful learning for teachers. Many participants also cited the study of Sandra Kaplan's model of depth and complexity as an effective tool for differentiation for gifted and talented learners. In this model, teachers leverage iconic prompts to target students' thinking around certain terms, topics, or questions so that responses and understandings require heightened levels of depth and complexity (Kaplan, 2017). Depending on where and how the interviewee had received the initial 30-hour training, their Curriculum and Instruction module may have included some elements of depth and complexity or relied upon this model completely to cover the topic of differentiation. It is important to note here that differentiation is the first code that explicitly cites direct instructional strategies, a point upon which is extrapolated upon further in the discussion section of this text.

Interviewees also spoke at great lengths about the importance of understanding the affective needs and traits of gifted and talented learners. Data coded as "affective needs" includes mention of students' social and emotional needs, the nature and needs foundational course (sometimes also referred to as "social/emotional needs"), behaviors often associated with gifted and talented learners such as perfectionism and fear of failure, making space for students to be their authentic selves, attending to the development of the whole student, asynchronous development, and strategies for building affective skills through appropriate challenges. Twenty discussions of the importance of learning around students' affective needs made this the third most prevalent code identified in the data.

"Challenge" is another multifaceted code identified through analysis of the interviews. Eighteen instances of vocabulary and descriptions that characterize

challenge appeared across the interviews. The most positive descriptor of challenge includes the necessity for teachers to strike a balance between maintaining order in the classroom and allowing students' interests to guide the learning. Interviewees described this as a challenge that pushed them in productive ways and resulted in increased classroom satisfaction for both the student and the teacher. Another challenge that interviewees described as initially difficult but one that became a normal expectation over time is that students may know more about some topics than the teacher. Participants detailed that being challenged as the content expert was something that an early-career educator may struggle with, but a more experienced educator could use to leverage a more student-centered classroom (as outlined in the first challenge). Finally, almost all interviewees acknowledged that teaching gifted and talented students may be frustrating and exhausting at times. This more negative descriptor could certainly be applied to the overall experience of teaching, but due to some of the nuances included in this code teaching in the field of gifted education has some unique aspects that may compound the typical frustrations and sources of exhaustion teachers experience. While this code does not have direct ties to professional learning, one could make a connection between coping with these challenges through continual engagement in up-to-date, best practice professional learning that adds to the educator's toolkit of knowledge and resources.

The next code, "gifted perspective-taking" appeared 16 times throughout the interviews, but I included this as a separate code because, as mentioned earlier in this text, the largest predictor of teacher attitudes towards gifted education is life experience (Berman et al., 2012). Within these descriptors, the most frequently cited source of

gifted perspectives was from the educator's own as a gifted and talented student. Gifted perspective-taking, as a code, is key to include because of the background as a gifted student that multiple interviewees in this research bring to their roles as educators of the gifted and talented. These life experiences shape the attitudes of educators in such a way that their understanding and application of professional learning is unique and separate from others without similar experiences as students. Also included in the descriptors of gifted perspective-taking are an improved understanding of students' affective and academic needs via experience working with gifted students over time and learning the unique needs of diverse populations of gifted students. All of the descriptors in this code stand out from the rest because they are based on experience and the educator's capacity to practice personal and professional empathy in order to better understand their students.

Following closely behind this code is "student-led learning," appearing 15 times in various ways throughout interviews. Descriptions included in this code include the idea that students each come with unique passions and interests that should be explored in the classroom, that students have the capacity to make complex connections if afforded the opportunity, that educators must allow for students' unique perspectives to be heard and explored equitably in the classroom, that student-led learning supports high levels of engagement, and that student interests should inspire much of the learning in the classroom. It is important to note that this last descriptor, "student interests should inspire much of the learning in the classroom," differs from the similar descriptor listed in the challenge code. Student-led learning focuses more on leveraging student ideas to drive lesson and activity planning; challenge focuses more on how the teachers manage

the classroom and structures the environment. These descriptions are differentiated by interviewees' feedback around the *challenge* of managing a classroom versus the teacher engagement with students required of *student-led learning*.

The final code identified during analysis is the part that "role models or mentorships" play in educators' professional growth and development. Interviewees cited 12 different instances of this code through discussions of individual mentors within their local gifted education community (campus, district, area), the importance of university professors or advisers who shaped their learning, the impact of learning from prominent scholarly figures in the field, as well as experience with inspirational teacher as a gifted and talented student themselves. Participants described these relationships or interactions as impactful and long-lasting, and influential at a number of different times throughout their careers, even as they transitioned into role models or mentors for someone else. Wycoff et al. (2003) emphasize the importance of engaging in mentorships in implementing and continually growing the learning that comes from professional development, an idea that was echoed many times and in several iterations from this study's participants, making "Role Models or Mentorships" another code identified in the data.

## Document Analysis

A thematic analysis provided data associated with how participants experience working with gifted students and engaging in learning that supports their efforts. In order to better understand the structures behind the teacher training and support that impacts and shapes individuals' teaching experience, it is critical to closely examine the descriptions outlining educator training and development. These published descriptions

can best be interpreted through document analysis. Document analysis is a procedure in which the researcher systematically reviews and evaluates documents in order to elicit meaning. Using this methodology, the researcher identifies, selects, analyzes, and synthesizes documents in order to identify overarching themes and concepts (Bowen, 2009).

The documents analyzed in this research are the published descriptions of 30-hour educator training required for those providing GT services in the state of Texas. Analysis of these online descriptions of trainings provided by regional service centers (RSCs) allows for comparison and contrast between ongoing professional learning opportunities available to teachers. RSCs are service organizations which function to provide support to school districts throughout the state of Texas (Texas Education Agency, n.d.), and frequently provide the required 30-hour gifted education training modules to campuses and districts. Each service center has the autonomy to develop its own 30-hour trainings, so the opportunity to identify cross-cutting themes and significant variations is readily available through an analysis of these descriptions.

Including a document analysis of available written resources that describe opportunities for educator training helps to create a robust study (Stake, 1995) and serves to create a clear picture of both the “how” and the “why” regarding Texas teachers’ attitudes, beliefs, and behaviors towards gifted education.

### Deductive Coding

Document analysis focused on analyzing the content of the 30-hour training module descriptions published by RSCs. In this process, I used analytical constructs from the conceptual framework to break down the text and make inferences related to

the research questions (White & Marsh, 2006). Examining data collected through both a thematic analysis of teacher interviews and a document analysis focused on the content of the required teacher training descriptions will help corroborate findings across the data and serve to reduce bias that may exist in a single analysis (Bowen, 2009). Combining both deductive and inductive coding methods can also add to the richness of the data (Lewis & McNaughton Nicholls, 2013).

I used a deductive coding technique to analyze the descriptions of the required 30-hour gifted education training modules. In deductive coding, the researcher uses a predefined list of codes, generated from the conceptual framework (Skjott Linneberg, & Korsgaard, 2019). This approach to coding was selected to ensure tight alignment between the conceptual framework and the questions that this research seeks to investigate. Using a predetermined set of codes adds to the power of deduction (Collins & Stockton, 2018). A deductive approach helps to situate the codes within the theoretical framework and the literature, and generalize across cases (Skjott Linneberg, & Korsgaard, 2019). For this analysis, concepts from theories of motivation support the use of the following code words and phrases:

- Abilities
  - Self-efficacy
  - Competence
- Goal value
  - Perception
  - Utility
- Support
  - Relatedness
  - Autonomy

I engaged in two rounds of coding (Skjott Linneberg, & Korsgaard, 2019). In the initial round, data were “chunked” into related units and coded descriptively, using the predetermined codes. In the second round, I analyzed the data to identify attribute codes. These codes function to describe larger portions of data, such as an entire interview, and describe attributes such as age, experience, professional background (teacher or school administrator, for example) that help to shed additional light on relevant data (Skjott Linneberg, & Korsgaard, 2019). Based on the work of Skjott Linneberg, & Korsgaard (2019), I first chunked the data into descriptive codes, and then organized these data into attribute codes, a process which is outlined in Table 2.

### *Strategy for Coding*

As described in the previous section, many of the session titles and descriptions included in the analysis process were similar in language and repetitive in their descriptions. Rather than coding all of the descriptions in the same way, which would likely not yield additional insight that would contribute meaningfully to this research, I developed a strategy wherein the nuances in language, primarily the differentiated verbs included in session descriptions, led the analysis process. According to Elliot (2018), the researcher must allow the methodology and research questions to drive coding practices when strategies appear ambiguous (as in the case of many similar texts in a document analysis). In this case, the conceptual framework rooted in theories of motivation drove the decision to examine the small changes in the action-based language used in each of the descriptions. Verbs describe what participants will learn and ultimately operationalize as a result of the professional learning coursework, which fits with the theories of motivation which provide the conceptual framework of this

research. Wigfield and Eccles' (2000) perspective on motivation focuses on performance and persistence in various activities; Ford et al. (2020) cite the role of competency and self-efficacy in task performance; and Hattie et al. (2020) identify constructs associated with a cost-benefit analysis of the task or goal. Each of these theories center around action-based constructs, which supports the careful analysis of descriptions of what participants of the 30-hour foundational coursework will be able to know, understand, and do as a result of their learning.

When examining the slight differences in the session descriptions, I identified the verbs or action-based language in the descriptions and made connections to each of the predetermined descriptive codes. Association descriptions are as follows:

- *Self-efficacy* demonstrated by "so that"-type statements illustrating the outcomes of learning (ex: "participants will learn strategies for differentiation *so that* they are able to meet students' advanced learning needs")
- *Competence* demonstrated by verbs such as "learn," "understand," and "examine"
- *Utility* demonstrated by verbs such as "apply," "create," and "practice"
- *Perception* demonstrated by language connecting participants' current roles with the learning outcomes, such as "General education classroom teachers may..." or "gifted and talented teachers can..."
- *Relatedness* demonstrated through descriptions of opportunities to reflect with peers
- *Autonomy* demonstrated by descriptions of self-paced coursework

### *Documents Included*

There are 20 Regional Service Centers in Texas, each of which has a website where their services and information is listed. This analysis sought to examine the 30 foundational hour session descriptions published on the RSC websites. Of these 20 regions, two regions lacked specific session descriptions, and four only listed the names of the foundation courses but did not provide a description. Due to these nonexistent or limited descriptions, 14 website descriptions were included in the document analysis process.

## Ensuring Trustworthiness

Qualitative methods provide a variety of tools for digging deeply into research problems and require a systematic sequence of procedural steps for selected methods of investigation (Silverman, 2006). There are several ways to ensure quality and dependability in this methodology. Shenton (2004) outlines several effective strategies for supporting credibility, transferability, dependability, and rigor that will be utilized in this research.

### Credibility

Credibility is supported by triangulation, member checks, and reflexivity on the part of the researcher (Shenton, 2004; Dodgson, 2019). Following the constructivist-interpretivist approach, the notion that each participant experiences a unique, subjective reality necessitates that multiple strategies should be used to acquire valid and reliable multiple realities (Golafshani, 2003). This research employs triangulation through the use of different methods for data collection (phenomenological interview design and content-focused document analysis), which adds to the richness of the data (Lewis &

McNaughton Nicholls, 2013). Throughout the live interview, I also actively took field notes on key points to revisit during analysis and engaged in self-monitoring for potential instances of bias in interpreting participant's responses, which is another triangulation practice (reflective commentary) used in this research (Shenton, 2004).

Credibility is also established through thick description that shows, not tells (Tracy, 2010). Thick descriptions in qualitative research evidence a deep understanding of the situation in which the phenomenon takes place. It considers the meaning and interpretation of participants' intentions in their actions, attitudes, and behaviors (Ponterotto, 2006). Descriptions illustrating connections between individuals' experiences, perspectives, and practices will be outlined in the discussion section of this research. Quotes from participants that serve to illuminate big ideas and themes will also be included in this section in order to provide a thick, detailed description to the reader.

This research also utilizes member checking (Shenton, 2003; Chowdhury, 2015) throughout and after the interview process to establish credibility. Member checking includes involving the participant as an active part of the data analysis process through summarizing at various points throughout the interviews, as well as summarizing big ideas with them at the conclusion of the conversation and encouraging clarification or additional feedback (Candela, 2019). At the end of each interview, I asked if I could contact the participant again in the future if there are subsequent questions about the information provided. Throughout the interview, I also framed feedback with clarifying questions and statements such as, "What I understand you to say is…," and "When you said _____, I understood _____. Can you elaborate?" Soliciting

feedback and clarification from the participant ensure that the data gathered in the interview is accurately reflective of their experience.

While checks like this may prove to be more difficult in the document analysis portion, I may find or request descriptions of the 30-hour training courses from RSCs if there is a need for additional description or clarification.

Reflexivity is also critical in establishing credibility in qualitative research. In this practice, the researcher closely examines and discloses their own situatedness and potential bias and acknowledges the potential effects on the researcher (Dodgson, 2019). The use of both inductive and deductive coding facilitates ongoing and iterative analysis through comparison of codes and themes, which requires both reflectivity and reflexivity in the researcher (Swain, 2018). As the researcher performs continual analysis, they must reflect on how their own interpretation of themes established both a priori and through organic coding and analysis affects the data by constantly monitoring for effects of their own positionality and experiences. To further practice reflexivity, the researcher will disclose their axiology, and make their own values, experiences, and demographics clear throughout the research process (Ponterotto & Grieger, 2007)

### Transferability

While the interviews and analyses done in this research may be specific to a limited group of people, transferability is supported by engaging a variety of participants from various school backgrounds (i.e., size, location, student demographic, type). Shenton (2004) also charges the researcher to provide sufficient contextual information about the work done with participants and in the field (in this case, the “field” is largely a digital environment), so that readers can transfer findings in situationally appropriate

ways. When findings are disclosed, the researcher will provide details about the backgrounds of each of the participants, outlining the number and type of each school represented (urban, suburban, or rural), the number of years each participant has been teaching, what grade levels, and what content they teach or support. Disclosing these details will support transferability through applicability (Chowdhury, 2015) to readers; or, when research findings are germane to a wide audience because individuals can apply take-aways and knowledge to their current context.

### Dependability

This research is dependable in that the description of the participant gathering, data collecting, and data analysis is detailed and able to be repeated consistently across interviews (Shenton, 2004). The different components of the research--the thematic analysis of participant interviews and document analysis of published professional learning training course descriptions--support the dependability of findings (Bowen, 2009).

Utilizing both inductive and deductive coding supports dependability in the analysis and interpretation of data. A deductive approach to coding published documents ensures dependability in that it organizes constructs and ties them back to the conceptual framework, so that the different components of the research are tightly aligned (Bowen, 2009). An inductive approach to thematic analysis produces reliable and valid findings because it follows a systematic set of procedures (Braune & Clarke, 2006) for interpreting the underling structures that make up the unique experiences of educators of gifted and talented learners (Thomas, 2006). When codes are driven by both organic data analysis and interpretation and a priori codes, both top-down and

bottom-up approaches are used in identifying themes (Xu & Kammit, 2020), adding to the dependability of the findings.

## Axiology

I am a school district administrator whose role is that of gifted and talented and advanced academics coordinator in a suburban school district. My past experiences in education include working as a classroom teacher for middle and high school grade levels, a pull-out gifted and talented program teacher, a campus assistant principal for secondary students, a campus coordinator for gifted and talented services, and a district instructional coach for secondary teachers. I have developed campus and district professional learning, which will impact my view of the 30-hour training and professional development described in this research. I also went through an alternative certification program in the state of Texas, which means that I did not pursue the traditional pre-service teacher coursework at the university level. This could impact my view of the utility and validity of some courses outlined in the graduation plans.

I have only worked in urban and suburban schools in the North Texas area, so my understanding of rural schools and their unique attributes may be limited. I have worked with both students from low and middle-income backgrounds, as well as students from affluent backgrounds, so I do possess insight into how a variety of student experiences impact the classroom and teacher. I also have a background in gifted and talented education, and hold a Master's degree in educational psychology, focusing on gifted and talented learning. Both my academic background, as well as my work with gifted and talented students, illustrate my bias towards working with GT learners and programs to meet their needs. This bias has the potential to impact my

view of the relevance of some professional development, utility of university coursework, and interviewee beliefs about gifted and talented education. I will work to mitigate potential bias by practicing continual reflexivity and journaling throughout the research process.

Trustworthiness is a critical component of qualitative inquiry. Researchers must make a concerted effort to ensure that the work is structured, purposeful, and adds reliable and valid knowledge to the field.

# CHAPTER 4

# RESULTS

I identified three major themes and two minor themes after engaging in a deep analysis of the interview transcriptions. These major themes are the (1) *utility of professional learning,* (2) *shared control of learning*, and (3) *understanding the whole student*. Minor themes are (i) *long-term career growth* and (ii) *role of professional support networks and connections*.

The former stood out as major themes due to the pervasive nature of the topics addressed in the interviews. Frequently, participants would make connections between new questions and previous responses or draw a metaphor or example over the course of multiple responses. Themes identified as major include the big ideas and overarching overt intentionality behind participants' responses. The latter minor themes serve to support the major themes by further exploring the structures underlying effective professional development and support.

Outlined below are the major and minor themes, accompanied by direct quotes taken from interviews in order to paint a vivid picture of how participants express their understanding of and relationship to the themes.

## Utility of Professional Learning

The first major theme, utility of professional learning, can be defined as the ways in which the content of professional development is immediately useful, implementable, and easily applied in the classroom environment. This theme includes the two subthemes of responsiveness and impact to the classroom and encompasses codes of differentiation, applicability, and the relevance of professional learning to immediate

student and teacher needs. The utility of professional learning was by far the most cited, emphasized, and referenced factor when discussing the efficacy of professional learning in gifted and talented education. The utility of professional learning is a multi-faceted theme that covers a wide range of interrelated codes and is supported by two subthemes that reinforce the importance of accessible, useful, and actionable professional learning. This first major theme is supported consistently by background literature and is by far the most prevalent across all interviews included in this research. The codes differentiation, relevance, and applicability paint a broad picture of participants' conceptions of utilitarian professional learning, while these subthemes explore the nuances of how professional learning is utilized.

Participant feedback underscored this theme in a variety of ways. Participants 4 and 6 reiterated that useful learning spoke to content as well as flexible, research-based strategies that could be applied to their classroom environments. Participants 7 and 9 provided examples of previous professional learning experiences that only included, "things that are just purely research based," or "filtered through people who don't entirely understand how to implement it [instructional strategy],"(Participant 7) and described it as "not very helpful" (Participant 9). These same participants also connected responsible use of district funding to professional learning that could be immediately implemented in the classroom. Here, a very concrete connection between the literal value of professional learning and its utility in the classroom highlights educators' clear desire to use resources (i.e., teacher time and school money) in a way that most immediately impacts students. This impact, according to participants, can be translated through differentiation practices, clear connections to opportunities for

application, and widely-supported, relevant learning that bridge the gap between research and practice.

In terms of differentiation, Participant 6 said that this was the most impactful skill that a teacher can learn to meet the varied needs of their advanced learners. The importance of professional learning that provides useful instruction on differentiation was discussed multiple times in each interview and was viewed as the most powerful instructional tool for a gifted educator by interviewees. This includes the foundational 30-hour modules covering some variation of the titles Differentiation, Curriculum and Instruction, or Depth and Complexity. Participants discussed differentiation in various formats—from differentiation via adding elements of depth and complexity, to strategies for accelerating instruction in response to student readiness, to ways to make content more challenging. The differentiation code included in the first major theme is supported by the literature, which underscores the idea that gifted and talented students are most successful when instruction includes novelty, flexible pacing, and interest-based content (Gomez-Arizaga et al., 2020; Kitsantas et al., 2017). These essential differentiation practices were recognized by interviewees and highly valued in professional learning.

Utility also encompasses the applicability and relevance of professional learning. When describing professional learning experiences which participants felt had improved their knowledge and/or skills, key factors in motivating them to engage in professional development, and future learning opportunities that they believed would improve their skills in teaching gifted and talented students, all participants included descriptions of learning that they could immediately apply in their school setting, as well as information that applied directly to their student population and their current role in gifted education.

Participant backgrounds varied and included educators who had transitioned from a classroom teaching role into that of leadership or support for gifted and talented services. These perspectives afforded a view into not only classroom experience, but experience creating or selecting professional learning for teachers. With the value of applicability and relevance in mind, Participant 2, who had experience working for an RSC designing the 30-hour foundational modules, described the importance of crafting professional learning that, ."..take[s] a look at this huge library of gifted strategies and resources...and get teachers really good at those things, because that's where the impact is going to be..." (October 12, 2022). Participant 7, is both a classroom teacher and an experienced professional development presenter, said that the value of professional learning is determined by the "applicability or deliverability of what you're offering," (October 12, 2022). Participant 3, whose role is unique in that they continue to serve students in the classroom and oversee identification and assessment, says that relevant professional learning equips teachers to "adjust what we have to meet students' needs" and allows learners to give and receive meaningful peer feedback. This underscores the findings from the literature, which emphasizes the perceived efficacy of professional learning that is immediately transferrable to the classroom (Wycoff et al., 2003) or one's career role.

This research identified bridging the gap between research and practice and engaging in data-supported professional learning as another important component of relevance. Participants 1, 2, and 10 directly addressed their need to see the evidence of effective instruction in their own professional learning. Participant 1 evaluated the relevance of professional learning after "I have both the data and some anecdotal

discussion from facilitators of how they used it in their classroom" (August 19, 2022). Other participants addressed relevance via bridging research and practice in their reflections on attending state or national conventions for gifted education. Participant 9 described effective sessions as those that are, "designed by people who are practitioners...and researchers who have made the concerted effort to actually translate their research into something that works for practitioners" (October 14, 2022). This additional insight into the complexities of what characterizes utilitarian, and therefore valued, professional learning highlights the complex nature of what supports perceptions of efficacy of the trainings.

### Responsiveness

Responsiveness to one's students as well as one's professional needs are important factors in understanding this "how" of utilitarian professional learning. Students are engaged by instruction that connects to their real lives (Gomez-Arizaga et al., 2020), which means that useful learning supports educators in identifying authentic connections to one's students. Participant 9 said they value professional learning that allows them to better understand their students because, ."..being able to help them [students] make a change so that they can be more productive...or feel less stressed out in their classes," (October 14, 2022) motivates them to continue to engage in ongoing professional development. Learning that provides educators with the tools to connect with students is immediately responsive to teacher needs in that it supports increased engagement. A teacher who understands what their students need, whether this is in terms of academics or social and emotional supports, can facilitate a highly

engaged classroom where connections directly result in improved student learning. This is illustrated by the following quote:

> For me, the key factors [for engaging in professional learning] are wanting to make sure that the kids get the most responsive, most appropriate education for what they need. Once you see that something is effective for a child, you want to apply it for any [other] children it works for. -Participant 1 (August 19, 2022)

Responsiveness is critical because it empowers the teacher through planning as well as in-the-moment classroom decision, and it serves the student by allowing their changing needs to be the driver behind classroom decisions, making it clear that their teachers are invested in their success. This shared understanding creates an environment of mutual respect and communication in the classroom.

### Impact to the Classroom

A second subtheme identified within this first major theme is impact to the classroom. As outlined above, participants referenced the importance of seeing the impact of professional learning in the classroom six different instances across four different interviews. This goes hand in hand with responsiveness; when learning is responsive to one's immediate needs, it is viewed as valuable. Participants 1, 2, 4, 5, 6, and 8 have moved from the gifted and talented classroom into leadership or support roles within the field and all still referenced the direct impact of professional learning to the classroom environment as critical in judging the efficacy of the learning. Reflecting from their former teaching lens, Participant 5 shared the following:

> So as a teacher, I enjoy looking at new instructional strategies that might support students. A lot of times, when I was in the classroom, I always had particular students in mind that this [professional learning] might work with. (September 29, 2022)

Keeping the students and the classroom environment at the forefront of how

professional learning is perceived as effective is a key subtheme in supporting the overall major theme of the utility of professional learning. Participant 10 cited an effective example of learning that taught them, “how to help that kid personally so that they can engage academically” (October 22, 2022) when reflecting on what motivated them to engage in professional development. This subtheme emerged as a result of the practical focus of all participants when reflecting on their experiences with professional learning; educators’ most valuable resource, arguably, is time and they must see the investment in their time pay in dividends where it matters most—in the classroom.

The utility of professional learning is a multi-faceted theme that covers a wide range of interrelated codes and is supported by two subthemes that reinforce the importance of accessible, useful, and actionable professional learning. This first major theme is supported consistently by background literature and is by far the most prevalent across all interviews included in this research. The codes differentiation, relevance, and applicability paint a broad picture of participants’ conceptions of utilitarian professional learning, while these subthemes explore the nuances of how professional learning is utilized.

## Shared Control of Learning

The second major theme in this research is shared control of learning, which includes the topics of student-directed learning and engagement, as well as specific practices related to differentiation and varied manifestations of giftedness. “Being flexible” in reference to classroom management, strategies for addressing content, the willingness to pivot in response to student need, and adjusting the scope and pace of instruction was feedback that participants shared across all interviews. Participant 8

speaks to the necessity of being flexible when they say, “they [students] challenge you and they are not going to let you do the status quo.” (August 23, 2022) This flexibility was frequently attributed to effective professional learning around differentiation practices, a topic that is also covered by the first major theme to emerge in this research. The skills to differentiate were often discussed in connection to teachers’ flexibility to modify classroom environment and practices, a practice which is reinforced with knowledge and tools learned through effective professional development experiences. This is supported by literature which states that effective training, such as that covering strategies for differentiation, can increase teacher confidence and self-beliefs regarding teaching ability (Bangel, et al., 2010) and result in a more positive classroom climate (Hansen & Feldhusen, 1994) where teachers are confident to be flexible and do not feel as if they must stick to a rigid environment or scope and sequence. Flexible educators also practice self-evaluation in order to remain flexible and meet the evolving needs of their student body. Participant 9 stated:

> A lot of times I will also seek out professional development because I feel like I’ve been doing something the same way for a while. ...generationally, and even year to year students, behaviors, and idiosyncrasies change...and if it’s something I’ve never seen before, I would like to be able to...gather tools to help me with that. (October 14, 2022)

This feedback provides evidence of an educator whose motivation to seek out professional learning is engaged in a reciprocal cycle with their self-beliefs and ongoing partnership with students in maintaining a productive, engaging classroom environment. This participant understands that their effectiveness as an instructor relies on their flexibility and attunement to students’ needs, which, in a gifted and talented classroom, is a shared control of learning.

Shared control of learning is another code included in this second major theme. Shared control looks like letting students take ownership of the classroom environment and allowing for their interests and passions to drive the learning. True shared control of learning requires some degree of the teacher relinquishing control over content and being the "expert." While the acknowledgement of a need for shared control of learning or partnership between the teacher and students was present in almost all of the interviews, Ps 2 and 8 explicitly stated that effective teachers of gifted and talented students should be prepared to allow students to direct the learning and accept that their students may be smarter than them. Participant 2 speaks to sharing the control of learning by saying:

> I think that there are so many times where a kid is ready for more and then teachers hit a wall in their own body of knowledge, and it can be really difficult for them to then proceed. So I think that it is crucial to a lot of times let them drive the ship and let them take the content and the skills you are trying to teach them as far as they can... (October 12, 2022)

While these skills undoubtedly grow as an educator gains experience in working with gifted and talented students, they are also connected to teachers' understanding of varied manifestations of giftedness. Respondents indicated that as they had learned to understand that giftedness can appear in different ways across different student populations, they became increasingly open to allowing students' unique interests, skills, experiences, and goals to drive the learning in their work together. Literature supports the perceived value of professional learning that is student-oriented—that is, learning which equips educators with the capacity to recognize many manifestations of giftedness and to then to allow students to explore their unique areas of abilities without restriction—is high (de Vries et al., 2013).

In analyzing the data included in the second major theme, shared control of learning, two subthemes emerged: student/teacher partnerships and understanding and honoring a diverse student body.

## Student/Teacher Partnerships

The need to have a productive and respectful partnership so that there can be a shared control of learning became an evident subtheme as I interpreted codes involved in understanding of domain and/or context-specific nature of giftedness. This description was double coded under “differentiation” and “shared control of learning” because in order for one to engage in sharing control, one must understand the nature of students’ gifts and talents and the accompanying instructional strategies required to develop those gifts and talents. Participants 2, 3, 5, 7, and 8 discussed the domain and context-specific nature of giftedness. This includes understanding that students may not be gifted across all content areas (Participant 5) and understanding that in order to grow talent (Participant 7), educators must engage students as partners in learning so that they take ownership of their learning. Engaging students through equitable partnership sets the stage for allowing students “different ways to display their gifts” (Participant 8, August 24, 2022).

Forging partnerships with students to have shared control of learning involves understanding how GT students think so that teachers can differentiate appropriately. Interviewees recognized that gifted students learn and process information differently, and that they as classroom facilitators required the skills to meet these learning needs. Teachers must have an understanding of how gifted learners intake, process, and synthesize information so that they can facilitate instruction that honors the quicker

pace, divergent thinking, and creative problem solving that makes up the learning process for gifted and talented students. For example, some participants reflected on how students synthesize information. Participant 8 said that, “they [students] do not think in little pieces. They think of a big picture and then they always make the connection,” (August 23, 2022) and Participant 9 echoed similar observations in describing how, “they come at everything diagonally...no matter how you think they are going to attack a problem, they always come at it a different way” (October 14, 2022). Without the professional learning addressed in the foundational modules Nature & Needs of Gifted/Talented Students and Differentiating Instruction for Gifted/Talented Students teachers would not have the requisite knowledge and skills to support students who do not necessarily learn in concrete, linear steps that they may be accustomed to finding in the general education classroom. Understanding and honoring the ways in which gifted students learn equips teachers to share control of the classroom and allow students autonomy in determining how quickly they move thorough the material, taking charge of making abstract connections, and being allowed to generate completely origins solutions to problems. Here, it is clear that professional learning which supports effective differentiation practices so that students and teachers can share control of the learning is critical in providing appropriate gifted services to GT students. The recurring feedback from participants around professional development that honed the skills which allowed teachers to recognize areas of giftedness, and strategies to engage students as partners to grow these areas was consistently reflective of how important this learning was in being an effective instructor.

### Understanding and Honoring a Diverse Student Body

The second subtheme to emerge within shared control of learning is understanding and honoring a diverse student body. This subtheme was identified and defined by participants' reflections around how their conceptions of what a GT student looks like have changed over time, as well as professional learning that has widened their view of who and what a gifted student may be. Across interviews, participants shared how critical it is to gain knowledge that supports effective identification of gifted and talented students, and how one must then develop the capacity to engage a greater diversity of students in the GT classroom. "Diverse" in the context of this research includes not only students from many different linguistic, ethnic, and cultural backgrounds, but also students who are not the stereotypical "GT" student; that is, underachievers and selective producers, or students who do not consistently generate products at the level of quality or with the frequency that their academic potential indicates that they are able (Siegle, 2018).

Participants 1 and 8 shared that impactful professional learning around the diverse ways that giftedness may look across language and culture helped them to gain an enhanced understanding of their students as gifted learners. Participant 8 cited a conversation with a parent whose child was clearly in need of GT services, but who refused to refer their child for assessment.

> You've got to understand that culture…they are all about the family. They support the family [individual members] not going off end elevating themselves in status. We calmed the father down to where he understood and he allowed me to assess. (August 23, 2022)

It was only after Participant 8 revisited previous professional learning around cultural conceptions of giftedness were they able to effectively communicate in a way that

addressed the child's academic needs, and assured the parent that referral was not boastful and did not seek to set their student apart from others in their family, which was the cultural perspective. Both Participants 1 and 3 reflected that professional development covering the topics of giftedness across cultures and strategies for identifying and engaging language learners have helped them be more responsive to their student body and have enhanced their capacity as an effective instructor for all students. This professional development provided them with the knowledge and skills to better engage their students academically and socially, and act as a better advocate for a more inclusive approach to gifted education in their school environment.

Participants 5, 6 and 8 shared that their conceptions of gifted and talented students have changed over time to include students who may be underachievers or selective producers. Participants 5 and 6 reflected that learning around what a non-stereotypical GT student could look like (i.e., failing grades, academic disengagement, repeat behavior issues) helped them to better plan instruction that reached all learners, even those who may not be actively engaged in the classroom environment. Increased and improved skills in the classroom as a result of professional learning supports increased instructor self-efficacy, which in turn supports the perceived efficacy of the professional learning and the motivation to continue to engage.

Another important component of *understanding and honoring a* diverse student body is reflected in the initial code associated with the value of effectively utilizing a variety of tools for identification in order to be responsive to a diverse student population Participants 2, 3, 4, and 8 all spoke on how impactful professional development sessions which focused on leveraging a variety of responsive assessment and

identification tools was on their role. Participant 4 shared how helpful learning around identifying students in poverty helped them to be a more effective GT services facilitator on their campus, whose student body primarily came from low socioeconomic backgrounds. Participant 4 said of that one of the factors that motivated them to participate in professional learning around identification and assessment was that they would be, “keeping up to date with the things that best ident=ftify the students, including creative identification, parent-teacher inventories, not just the [quantitative} assessments we use.” Professional learning on identification and assessment allowed Participant 4 to go back to their campus and partner with classroom teachers so that these gatekeepers to identification could better understand the unique attributes of a gifted student living in poverty. Participant 5 discussed the broader application of learning around various tools for servicing students including a “Young Scholars” program in which students who do not meet criteria for GT services, but who show potential, are served by trained classroom teachers with targeted differentiation strategies to develop their talents. This example provides a creative approach to services designed as a result of professional learning around a “talent pool” approach to identification, as well as ongoing collaboration with other practitioners in the field.

This major theme, shared control of learning, and its two subthemes emerged though not only direct participant feedback, but by examining the relationships of topics between themes. Flexibility and shared control of learning are codes which illustrate rich connections between participants’ experiences and insights as educators of gifted and talented students.

## Understanding the Whole Student

The third major theme identified in this research is the importance of understanding the whole student. This includes their affective needs, the backgrounds of diverse student populations (as outlined also in within the subtheme, understanding and honoring a diverse student body, identified in the theme of shared control of learning) the various ways in which giftedness may manifest, and student understanding via gifted perspective-taking. When interviewees talked about professional learning around understanding the whole student, they frequently cited the 30-hour foundational module titled, “nature and needs” or “social/emotional.” This learning, along with factors influencing motivation around implementing professional learning in the classroom and a developed understanding of gifted and talented students, were the third most prominent collection of codes in examining the perceived efficacy of professional learning in gifted and talented education.

The importance of understanding students’ affective needs did not align with the educator perceptions outlined in the literature; that is, teachers hold negative conceptions of gifted students’ social-emotional skills (Weyns, et al., 2021). To the contrary—all ten participants in this research expressed how important understanding the nuanced social and emotional needs of their gifted students was in being a successful educator. Interviewees did not express negative conceptions of their students’ skills; however, they did note some potentially negative affective attributes of gifted and talented students, such as fear of failure or perfectionistic traits. It should be noted that participants did not view the manifestations of these traits negatively, but as specific areas of support that their students may require. Participant 5 said that

professional learning around perfectionism allowed them to, “coach kids through not being perfect or even the opposite. All of these people in this room seem perfect except me, what do I do, I don’t belong here...” (September 29, 2022). An enhanced understanding of this nonacademic struggle their GT students faced allowed them to reach their learners in a way that made a long-term positive impact.

The literature also stated that teachers hold negative presuppositions about the relationships between the gifted student and their teacher (Weyns, et al., 2021), and the findings of this research suggest just the opposite. Educators interviewed here emphasized how important building relationships with students through affective connection was in understanding and meeting the needs of the whole student. Participant 10, whose teaching background began in early childhood education, outlined the importance of social and emotional learning in gifted education because that knowledge allows educators to see the trajectory of how asynchronous development can impact a student not only academically, but socially and emotionally as well. This participant said of this training,

> ...when I get a kid standing in front of me who fits that training...I know what to do with them and I know how to help them. [I know] how to help that kid personally, so that they can engage academically. (October 22, 2022)

Professional development opportunities that help educators better understand the unique affective experiences and needs gifted students may experience, according to Participant 9 improves their sensitivity, and in turn their ability to anticipate students’ needs.

In terms of understanding the diverse backgrounds of gifted and talented populations (i.e., culturally, linguistically, and ethnically diverse students, students from

poverty, students from rural backgrounds, twice-exceptional students), educators in these interviews underscored how critical it is to learn strategies for meeting not only the academic but the affective needs of all learners, and how these needs may look different across student populations. The subtheme of understanding and honoring a diverse student body identified within the major theme shared control of learning differs from understanding the whole student in that the latter major theme includes the affective needs of all GT students, while the former focuses on the academic components of gifted and talented services.

Finally, this minor theme also encompasses student understanding via gifted perspective taking. Participants 1, 2, 3, 8, and 10 in this research self-identified as having been identified as gifted and talented as a student, a topic which will be explored further in the discussion section. This certainly lends a unique perspective on the importance of understanding the whole student, as well as the perceived efficacy of professional learning around gifted students' affective needs. In addition to self-identifying as gifted, "perspective taking" also refers to the practice of professional reflection by evaluating experiences through their students' eyes. The relationship between professional learning and gifted perspective-taking was not entirely clear in analysis of the data; however, all respondents reported naturally taking this reflexive approach to understanding their students' affective needs. The prevalence of an empathetic approach to knowing one's students underscores this second major theme of understanding the whole student and could lend additional insight into content and structures for future professional learning around social-emotional topics.

Two subthemes emerged from this final major theme: social/emotional pedagogy

and learning from shifting lenses. “Social and emotional needs” casts a wide net as far as capturing what should take place in effective professional learning around the affective needs and perspectives of GT students. These subthemes illustrate more precisely the types of learning experiences that educators view as effective.

### Social/Emotional Pedagogy

Participant 4 best defined *social/emotional pedagogy* by “understanding of how we meet teachers’ and students’ needs based on what is happening in the world” (September 20, 2022). This captures the essential components of effective professional learning in that it includes the needs of the teacher as well as that of the student, and takes into account the cultural, social, and situational factors that affect the school environment. Responsive, effective professional development equips the learner with a better understanding of self and environment in order to develop understanding and empathy with students, and then imparts skills to create structures in the classroom for meeting affective needs. Every interviewee in this research acknowledged the importance of professional learning that included tools for meeting the affective needs of everyone in the gifted and talented classroom in order to provide highly effective and comprehensive GT services.

The degree to which participants believed that this was a crucial part of learning varied. For example, Participant 2 believes that social/emotional pedagogy is important learning only to the extent that it allows the instructor to build empathy for the student’s academic experience and subsequently improve instruction. In contrast, Participant 8 describes the Nature and Needs foundational module as the most important, by far, and social/emotional pedagogy as an integral part of all gifted instruction. Participant 4

describes what seems to strike a balance between these perspectives when they say:

> I think it was important to attend to their [students'] emotional needs before we ever started anything academic. There were times that students would come in and just need a talk. And so we would spend thirty minutes discussing why their morning did not get off to a good start before we were able to dive into curriculum. So just trying to have the resources and knowledge to reach those kids and be an advocate [was important]. (September 20, 2022)

In this quote, the interviewee acknowledges that without understanding how social/emotional pedagogy impacts academics, they wouldn't be able to fully engage with and support their students. Regardless of the degree to which participants reported social/emotional pedagogy was important in professional learning, all reported that is was an essential component.

### Learning from Shifting Lenses

The second subtheme is learning from shifting lenses. This refers to the adoption of multiple perspectives, including one's own as a learner, a teacher, and that of the students. Introspection and engaging in reflection from multiple perspectives is an essential part of understanding the whole student because it forces the educator to consider the unique feelings, thoughts, and experiences of their students as well as practicing the important skill of self-reflection, which is key for growth.

The code "gifted perspective taking" includes the educator recalling their own thoughts and experiences as gifted learners (five out of the ten participants self-identified as gifted), as well as trying to view the world through their students' eyes. Participant 8 was direct when they described what motivated them to engage in professional development and said, "I didn't want kids to feel like I did when I was younger." (August 24, 2022) Here, the lenses through which the learner views professional development includes their own as a student, as well as that of a teacher

who seeks to improve and provide highly effective learning opportunities for their students. Participant 7 reflected on their own time in school as a student who had to know the “why” behind the learning, and how a “sit and get” approach to instruction left them disengaged. Again, lenses include that of self as child and adult learner, whose negative experiences shape their motivation to seek out effective professional development so that they can facilitate the learning opportunities they feel they missed out on.

Shifting lenses also included that of the students currently in the educator's classroom. Participant 8 recalled engaging in a professional development session in which learners examined the traits of the main characters in the novel Seabiscuit, and then connected those traits to that of the GT learners in their classrooms. Participant 8 describes this as transformational learning that allowed them to think about their students differently, and, once the lesson was implemented in the classroom, to gain a much deeper understanding of the ways that their students connected to and viewed the world. This is an example of how learning from shifting lenses moves from abstract reflection from the perspectives of self and others to concrete instructional activities which provide ongoing opportunities for teachers to understand the world through their students’ eyes. Understanding the whole student necessitates engaging in reflection from multiple perspectives, as is evident in the learning from shifting lenses subtheme.

### Long-Term Career Growth

This first minor theme, long-term career growth, is defined by the reported trajectory and satisfaction participants described in their discussion of their experience working in the field of gifted education. Participants who disclosed a specific number of

years' experience working in gifted and talented education ranged from 16 to 36 years (average 21 years), with no participants being new to the field of gifted education. All participants had either taken on a leadership role in gifted education (i.e., moved from the classroom into administration or a consulting role, act as teacher and coordinate student identification on their campus), and/or sought out post-secondary education in the field of gifted and talented studies. It may be reasonable to infer that everyone participating in these interviews demonstrates long-term career growth and fulfillment simply by virtue of the length, trajectories, and engagement in gifted and talented education. However, more explicit feedback around questions such as, "Share some words or phrases that you think appropriately describe teaching gifted students," illustrate the long-term career growth and fulfillment respondents associate with working in gifted and talented education.

As they reflected on phrases meant to describe teaching gifted students, respondents clearly illustrated their fulfillment with their role through descriptors such as, *exciting, challenging, high energy, personally motivating, creative, inspiring,* and *never a dull moment*. Professionals who describe what they do in this way are motivated to continue to grow in their field. The literature on motivation and professional learning, according to Ford et al. (2020) takes a social-cognitive approach to interpreting how educators are supported in their profession. Citing the roles of competency and self-efficacy, they explain that the more competent and well-equipped one feels, the higher one's self-efficacy will be. These educators' feedback on teaching gifted students evidences self-efficacy, potentially rooted in the learning experiences outlined in the major themes. These educators who possess the skills to meet the varied academic

and affective needs of their students describe personal motivation and inspiration when reflecting on their careers, and these descriptions coupled with the levels of career growth and trajectories illustrate long-term career growth and fulfillment.

Two subthemes within this minor theme emerged: personal investment and engagement and dynamic nature of effective instruction. Both subthemes serve to illustrate individuals' perspectives on their experiences as gifted and talented educators, as well as the necessity of professional development that keeps learners apprised of best practices so that they continue to be responsive to an ever-changing student body.

### Personal Investment and Engagement

A commitment to and romance with the discipline of gifted and talented education was evident in each of the interviews included in this research. The first minor theme, long-term career growth, captures the big picture of how participants' roles have developed over time and will continue to do so as they engage as professionals. Personal investment and engagement is a sub theme identified in long-term career growth, and it reflects the individual's commitment to this growth based on their motivation to continue to engage productively in the field. This engagement, according to the interviewees in this research, is a direct result of personal fulfillment, an appreciation for the craft of teaching, and the positive associations they continue to gain from their career. Participant 7 expressed their personal investment and engagement in gifted and talented teaching by saying, "That's the joy of the classroom. I think part of the engagement is fun. So it's a fun job. It's an awesome job" (October 12, 2022). Participant 4 reflected on the return on teaching GT students in that, "you'll learn a lot from your students," and Participant 1 describes teaching gifted students as

“empowering.” These experiences and descriptions illustrate why educators are motivated to persist in the field and as learners themselves—they continue to benefit personally from their career experiences, and from engagement with a dynamic student body. Participant 3, when asked to share some words or phrases that they thought appropriately described teaching gifted students responded with, “heaven.” Educators who characterize their experiences with language like the participants shared are very clearly personally invested and engaged in their long-term career growth.

### Dynamic Nature of Effective Instruction

The second subtheme identified in long-term career growth is the dynamic nature of effective instruction. This can be defined as the recognition by participants that in order to be an effective educator over time, one must engage in professional learning continually so that they are best apprised of and utilizing best-practice strategies in gifted education. Whether they are supporting GT teachers and services (administrator participants), facilitating classroom instruction (teacher participants), or designing and delivering professional learning (consultant participants), all interviewees in this research reflected on their own need to engage in ongoing learning so that they have the up-to-date knowledge and skills to ultimately support an ever-changing demographic of gifted students. Participant 6 reflected on their internal motivation to learn, as well as the ongoing need to participate in professional development in order to stay current when they said,

> Well, learning is lifelong so I want to model that not just for teachers and for students, but I also believe that I don’t ever want to stop learning. I think when I do that, I will become disconnected. I don’t think that my education and my knowledge level will remain relevant to what we’re doing because we are constantly growing, and we’re encouraging our staff to grow and our students to grow. (September 28, 2022)

This quote captures the essence of this subtheme in that it includes GT leadership, teachers, students, and one's personal desire to continue to grow in their career field. Participant 5 shared similar feedback when they said that their motivation to engage in professional learning was partially internal ("I enjoy learning"), and partially so that they could be the best source of support for students and teachers. Participant 2's feedback helps to connect the internal motivation to engage in professional learning with student instruction when they reflected simply, "We have to know our kids," (October 12, 2022); knowing the needs of the students, and understanding that these needs change as students enter classrooms with increasingly diverse backgrounds and experiences, makes it clear that effective instruction for these learners is dynamic and requires ongoing engagement in professional learning so that educators are current on best practices.

### Role of Professional Support Networks and Connections

The second minor theme identified in this analysis is the critical role of professional support networks and connections. Underlying the responses across interview questions such as, "Reflect on when you began teaching gifted and talented students. Did you feel adequately prepared, and why?" and "Describe a professional learning experience that you feel has improved your knowledge and/or skills regarding gifted education," were the important role of an individual mentor, the influence of a prominent figure in the field or the guidance of a university professor, or the support of professional networks had in their growth and development. This minor theme is supported throughout the literature on professional learning and motivation. Ford et al. (2020) discusses the concept of relatedness—or feeling as if one has relationships with

others who share similar experiences and can empathize—in how well professionals are able to persist in their career growth and development. Professional learning that is impactful and long-lasting includes a collaborative colleague (Carson McCall et al., 2018), and opportunities for collaboration and feedback from others (Darling-Hammond et al., 2017). Participants emphasized the importance of a professional network that ranged from a single mentor to state (TAGT) and nationwide (NAGC) organizations. Participant 5 describes collaboration with peers at state and national level as, “really, really helpful to be around other educators who taught gifted students...and then those presenting who were sharing their expertise, I came back with a lot of tips (September 29, 2022). These organizations which provide professional learning and varied platforms for connecting with one’s peers (online forums, state and national conferences, book studies, etc.) were viewed as valuable overall by the participants included in this research.

### Importance of Feedback and Modeling

This reflection on opportunities to connect with one’s peers allowed a subtheme to emerge in this minor theme: the importance of feedback and modeling. While formal professional networks were viewed as overall useful in engaging in effective professional learning, many participants reflected on more personal relationships they have formed with peers in their field, and the ways in which learning from others’ experience helped them grow in their own careers. Participant 3 reflected a great deal on the many relationships and both the formal and informal mentorships that supported them over the course of their career:

> And the mentors I’ve had, oh my gosh—I wouldn’t be here if it weren’t for either of them. [T]he women that I’ve worked for...I’ve learned a lot from them. I’ve

> learned about leadership, and the roles you can play, and just particular skills. I'm the GT mentor now. Sometimes I miss having that [mentor]...I still want to go have coffee with these women, or men, who have way more experience than I do. (August 24, 2022)

When educators have access to others in their similar roles, they have the opportunity to share ideas and receive authentic feedback on their own work. When more experienced mentors can demonstrate a new practice or model implementation of a new idea, this provides an opportunity for highly effective professional learning in that it makes the theories, ideas, and structures outlined in professional development tangible for others. Participant 6 shares how informal structures at a national conference (i.e., coffee meetups, roundtable discussions) support their learning because they can, "hear from other leaders around the nation and hear best practices as they are evolving," (September 28, 2022). While formal support networks and professional connections are an essential part of ongoing professional learning, a key component of that learning lies in the less formal opportunity to engage in "in the moment" learning via modeling and feedback.

These primary and minor themes provide a thick, rich description of educators' perceptions of the efficacy of professional learning in gifted and talented education. Through repeated analysis, these themes and their underlying complex connections begin to paint a picture of what factors may be involved in understanding how educators interpret and enact elements of professional learning, and the perceived impact to both the educator and the students.

## Document Analysis of Professional Learning Descriptions

This research also employed document analysis of the written descriptions of the foundational 30-hour professional development courses required by the Texas State

Plan for the Education of the Gifted/Talented for all educators providing gifted and talented services in Texas public schools. While these professional development courses are available through a variety of private providers, this research utilized the courses provided by the state's Regional Service Centers (RSCs). These centers work with schools in their designated regions to provide professional learning and various department and program supports to public, private, and charter schools who engage their services. These RSCs work in collaboration with the Texas Education Agency in order to ensure schools have the resources they need to be compliant with state expectations.

The professional learning outlined by the State Plan only specifies that the 30-hour coursework must cover, "nature and needs of gifted/talented students, identification and assessment of gifted/talented students, and curriculum and instruction for gifted/talented students" (Texas Education Agency, 2019); the remainder of the 30 hours and the actual content of all of the foundational coursework is at the discretion of the provider. It is worth noting that in this research, most of the course titles and descriptions across RSCs were very similar, perhaps indicating that these organizations have been provided guidance on the content of these courses. Due to the repetitive nature of the course descriptions, I developed a strategy for coding documents, which is outlined in subsequent sections. Although the descriptions were very similar in language and course titles, there were still important nuances to discuss and analyze in terms of connecting these descriptions to the theories of motivation that form the conceptual framework of this research.

Results of the document analysis illustrate that the most frequent descriptions are associated with the *abilities* participants will take from the learning (see Table 3). Within this descriptive code, most of the language focused on learner competence (65 instances), while few of the descriptions included references to self-efficacy (6 instances); that is, what learners will be able to do as a result of the learning. While this focus on developing abilities to successfully work with gifted and talented student populations does support the first major theme identified in the thematic analysis portion of this research—*utility of professional learning*—a disproportionate amount of the descriptions only encompass the *what* in terms of skills and abilities and not necessarily the *why*.

In terms of *goal value*, zero descriptions addressed how learners' perceptions of their task value (providing gifted and talented services) would change as a result of the coursework. However, 47 instances of language associated with utility were identified. Again, this serves to underscore the first major theme in the thematic analysis. It is worth noting here that there were 32 instances of compliance-based language in the course descriptions; perhaps the authors of the descriptions did not focus on learners' perceptions of their task value could change as a result of the professional learning because participants were not necessarily choosing to complete the courses. This important component of the *why* behind professional learning falls short in the session descriptions.

Finally, *support* contained 15 instances of descriptions illustrating relatedness, as defined by opportunities for peer interaction. Only one instance of autonomy in the coursework was cited, and that was simply because the course was described as an

asynchronous online module. While this may not fulfill the complete definition of "autonomy" as described in the theories of motivation (i.e., self-selected courses that are not compliance-based) it does guarantee the learner can choose the pace and degree of attention and effort placed into the learning. *Support* descriptive codes serve to reinforce the minor theme in the thematic analysis, *role of professional support networks and connections* insofar as they focus primarily on relatedness and opportunities to make connections, give and receive feedback, and engage in meaningful reflection around the learning.

Table 3

*Session Description Document Analysis*

| Descriptive Codes | Instances Identified | Attribute Codes | Total Instances Identified |
|---|---|---|---|
| Self-efficacy | 6 | Abilities | 71 |
| Competence | 65 | | |
| Perception | 0 | Goal value | 47 |
| Utility | 47 | | |
| Relatedness | 15 | Support | 16 |
| Autonomy | 1 | | |

# CHAPTER 5

# DISCUSSION

## Key Findings

This research examines Texas educators' experiences related to teaching gifted and talented student populations. This research also examines educator experiences around professional learning for teaching gifted and talented students, what motivates these educators to apply their professional learning, and how the required 30-hour foundational training for Texas educators of the gifted has impacted knowledge and pedagogy. Gaining insight into these perceptions is important to the field of gifted education because new insights and understandings may create a domino effect around how organizations develop the structure and content of required professional learning to better support both gifted and talented students and their teachers.

Beginning with educator beliefs about this particular student population, literature states that how teachers characterize and think about gifted and talented students is based largely on their personal experiences, with many teachers dismissing the notion of "giftedness" altogether (Berman et al., 2012). Professional learning must first address teacher misconceptions or understandings and "knock this domino down" before starting to build a foundation of useful knowledge around gifted education practices. Only after these misconceptions have been rectified can learners cultivate the knowledge and skills necessary to meet the needs of their gifted and talented students. The next domino to fall is that of understanding how professional development coursework affects teacher beliefs (in terms of both beliefs about gifted and talented students, as well as individual self-efficacy) and practices are critical in ensuring that

educators can maximize their experience with the 30-hour required foundational courses. Finally, the last domino to complete this series is that of examining the perceptions of the educators of gifted and talented students so that developers of professional development courses have feedback useful in implementing in the recursive cycle of continuing to advance and improve the opportunities for learning. Analyzing educators' perceptions and experiences serves to generate meaningful feedback that may serve to shape the content, structure, and future direction of professional learning in the field of gifted education.

Using a constructivist-interpretivist paradigm, ten participants were interviewed using a phenomenological interview design and written descriptions of professional learning were examined through the document analysis process. I analyzed the interviews using thematic analysis (Braun & Clarke, 2006) in order to identify the perceived efficacy of professional learning based on the experiences of interviewees. The document analysis component of this research used the conceptual foundation of theories on motivation to identify language included in foundational 30 hour professional development descriptions that may or may not support engagement in professional learning. This research has identified several key findings instrumental in operationalizing change in professional learning.

## Application is Critical

The first major theme identified in this research, *utility of professional learning,* and its subthemes, *responsiveness* and *impact to teaching and learning* succinctly describe the most significant and repeated piece of feedback gleaned from the interviews. As learners, teachers must be able to make direct connections between the

learning and their current classroom environment and student population. Participants in these interviews all clearly understood that their gifted and talented students needed differentiated and nuanced approaches in instruction so that they could meet their full potential, and instruction targeted at developing these skills was viewed as the most valuable. Rowan and Townend (2016) support this view of professional learning through their work, which found that teachers' understanding of strategies which allow for gifted learners to move at a quicker pace, engage in higher-level thinking, and create advanced products is essential in keeping students from being disengaged, underperforming, and potentially isolated in the classroom environment. Educators who participated in this research understood the "why" behind gifted students' need to learn differently; the tools that support the "how" of implementing these types of differentiated instructional strategies was by far viewed as the most impactful and valuable in the 30-hour foundational coursework.

The feedback from participants regarding how important application and utility are in professional learning speaks especially to one of the questions outlined in this research: *What motivates educators to apply professional learning?* The answers to this question can be found in the breakdown of the theme *utility of professional learning* and its subthemes, *responsiveness* and *impact to teaching and learning*. Respondents reported high motivation to apply professional learning when they viewed content as immediately useful, able to make a direct impact to the quality of instruction for students, and timely and responsive to current classroom needs. When participants engaged in professional learning that included useful knowledge and practices for immediate implication and observed its payoff in the classroom, they reported high

levels of motivation to find more and similar learning opportunities. This recursive pattern of engaging in effective, utilitarian professional learning and seeking out more learning just like what they had previously experienced helped to illustrate answers to the research questions, *What are educators' experiences related to professional learning for teaching gifted and talented students in Texas?* and *How has the 30-hour training required for Texas educators providing gifted services impacted teacher knowledge and pedagogy?* Participants described research-based, actionable learning that was timely and relevant to their student populations and role(s) within the field of gifted education. In terms of the 30 hour Foundational coursework, according to interviewees, the Differentiation (or some variation thereof) and Depth and Complexity modules were cited as one of the most effective professional learning experiences. When taught effectively, both of these modules provide learners with knowledge and tools to immediately and positively impact teaching and learning.

Professional development that provides learners with the *how* of identifying gifted and talented students from all populations is a critical component of the subtheme found within the second major theme, *understanding the whole student, understanding and honoring a diverse student body,* insofar that it ensures that there is indeed a diverse body of GT learners. When participants discussed professional learning that they viewed as highly effective, they often highlighted learning experiences that developed knowledge around widening conceptions of who a gifted and talented student could be and how they could leverage tools and strategies to identify these students in their school. Respondents in this research referenced the importance of learning that equipped them with the tools to practice equitable identification in their school or district.

This finding is in contrast to the literature, which reported educators stereotyping “gifted” students as White or Asian and male (Carman, 2011), and being far less likely to identify characteristics of giftedness on students of color, language learners, students receiving special education services, or students from low-income backgrounds (Peters & Engerrand, 2016). Here, the perceptions of participants in this research do not align with the literature surrounding teacher attitudes and beliefs around understanding and meeting the needs of a diverse student body. Again, professional learning with readily-applicable resources, tools, and best-practices was highly valued by participants.

The final major theme, *understanding the whole student,* and its subthemes, *social/emotional pedagogy* and *learning from shifting lenses*, may also fall under the umbrella of application. Respondents continually reiterated the tightly connected nature of students’ academic and affective needs. When participants described perceptions of gifted students changing over time, their responses focused on how essential it is for educators to understand the social and emotional needs of gifted students, as well as the many ways that student backgrounds, cultures, and environments shape them as individuals and the impact that this has in the classroom. Much of the feedback around understanding the whole student provided important insights into the research questions, *What are educators’ experiences in working with gifted and talented learners?* and *What are educators’ perceptions of characteristics of gifted and talented learners?* That is, educators’ collection of experiences and interactions with gifted students as learners in their classrooms resulted in the strong belief that GT students are complex, multifaceted individuals who are not simply a collection of gifts and talents. Participants indicated that specialized learning around understanding both the internal

and external forces that shape gifted learners is essential in providing appropriate curriculum, instruction, and support to students.

A course in the foundational 30-hour series titled Social/Emotional Needs of the Gifted (or some variation thereof) equips educators to understand the diverse backgrounds of students, as well as how their affective needs impact their social and academic growth and development. This course, when implemented effectively, also works to dispel myths prevalent to those unfamiliar with gifted and talented learners; that is, they are defiant, aloof and insensitive to others, and may be socially isolated (Geake & Gross, 2008). This course was referenced directly by a number of participants during the interviews, who cited the value in learning about the specific factors affecting students' social and emotional development, such as asynchronous development, perfectionistic traits, and a fear of failure. A second foundational course, Nature and Needs of the Gifted, was also directly referenced by one participant who indicated that this had helped to debunk some of the commonly-held myths supported by the literature regarding teachers' beliefs about the affective traits of gifted and talented students. As participants reflected on learning around these affective topics, the focus of the conversation continually centered back on the application of this new knowledge in the classroom environment. Not only did interviewees value the new insight they had gleaned into their students' affective traits and needs, but they could leverage this knowledge to create a more positive and productive classroom.

When learning is structured in such a way that participants' abilities improve, perceptions of competence and self-efficacy improve. *Abilities* was the descriptive code that appeared most in the document analysis component of this research, which

supports the overall idea that a participant in professional development coursework who is confident in applying new knowledge and skills will perceive the learning to be useful and impactful. This is supported by the literature, which states that a balanced approach to professional learning that blends pedagogy with content knowledge (Darling-Hammond et al., 2017), as well as strategies to implement curricular frameworks and learning activities, is effective for adult learners (Brigandi, 2019).

### Part of the *Why* is Missing

*Goal value* was the descriptive code that contained the attribute codes *perception* and *utility. Utility* in the document analysis of the 30-hour course descriptions (as identified through the verbs, “apply,” “create,” etc.) is made very clear in most of the detailed course outlines; however, *perception* regarding participants’ goal valuation, as operationalized by the researcher, was nowhere to be found in the documents. This points to a gap between what the theories of motivation state that adult learners need for meaningful engagement and long-lasting professional learning. The 30-hour foundational courses cited by participants clearly communicated and delivered utilitarian, applicable learning but failed to make the connection between why this is important for long-term growth and development. This is interesting, because the first minor theme explores this same big idea: *long-term career growth and fulfillment.* The literature states that educators view professional development as most effective when it is integrated meaningfully into their everyday context, in other words, in their role within the school setting (Garet et al., 2001). While participants in this research had a great deal of positive feedback around their careers as educators of gifted and talented students, as well as the personal fulfillment they gained from their work, their reflections

encompassed the span of several years or even decades in the field, as there were no participants new to gifted and talented education. Professionals taking these foundational courses who are new to the field, or who are simply completing the courses as a job requirement, do not receive a clear description of why the learning is valuable situated in their everyday contexts. Application and utility are clear for all learners in these courses; however, the connection to why the learning outcomes should be valuable to the individual learner is missing. Analysis of participant responses to interview questions helped shed light on the following research questions: *What are educators' experiences related to professional learning for teaching gifted and talented students in Texas?* and *How has the 30-hour training required for Texas educators providing gifted services impacted teacher knowledge and pedagogy?* as respondents frequently described foundational training that occurred at the very beginning of their career in gifted education, and learning that focused primarily on the parts which contained readily-implementable knowledge and skills. No participant described the entire articulation of foundational coursework as effective. As discussed earlier, application is indeed critical to all learners engaging in professional development, but motivation to meaningfully and repeatedly integrate the knowledge and skills may be minimized because the connection between the learning and an individual's day-to-day role and environment is not addressed effectively in the course descriptions. In the document analysis, the compliance piece of module descriptions was repeated far more than descriptions outlining participant outcomes. While the content of the modules themselves may facilitate key connections between the professional learning and implementation, learners' first understanding of and interaction with the courses via the

written descriptions does not set the stage for making such conjunctions.

When exploring the motivational components for engagement in professional learning, it is equally important to include both the utility of the content, which has been highlighted repeatedly throughout this research, and the fit between the learning and the learner. The positive impact of including educators' personal and professional goals in professional learning (Lee & Ritchotte, 2019) is also key in understanding the *why* behind effective professional learning. In this research, participants' feedback regarding the perceived efficacy of professional learning that included both direct connections to their current student population and their own needs as an educator echoed the information outlined in the literature. An intrinsic motivation to learn, as cited four times throughout the interviews, as well as the importance of seeing the impact of professional learning play out in the classroom environment (cited six times throughout the interviews by participants), shape the personal goals of the educator as a learner. These goals drive the types of professional learning that educators seek out, and this research makes it clear that knowledge and skills which equip teachers to be responsive to their students and/or their role in education is an integral part of utilitarian professional learning. Offering opportunities for professional development that ensure responsiveness is critical in crafting and supporting professional learning that is both impactful and utilitarian.

### Learning is a Partnership

This key finding has two major components: learning is a partnership between the teacher and student, and learning is a partnership forged in professional networks and connections. As stated in the beginning of this text, education is an innately human

endeavor and the significance of the impacts of ongoing complex interpersonal relationships on one's career cannot be underestimated. This first component, the partnership between the student and the teacher, is illustrated in interviewees' continual reference to the importance of shared learning. This major theme identifies a need to balance both control of the classroom environment and the pace and content of curriculum between student-driven interests and the teacher's classroom structure and the scope and sequence of curriculum implemented in gifted and talented services. These are not skills that a novice or poorly trained teacher possesses. Perceptions shift through learning and experience, and experience is shaped by ongoing professional learning. That is, educators who implement effective practices gleaned from professional learning build a collection of experiences which, over time, shape their perceptions of both their students and themselves. Frequently, respondents in this research described how effective teachers are able to be flexible and responsive to student needs; this knowledge and ability is a result of student-centered professional learning and high levels of teacher self-efficacy.

As discussed in the thematic analysis, flexibility is key in developing this partnership, and the skills educators need to achieve flexibility lie in strategies for effective differentiation. The literature states that professional learning that focuses on strategies to differentiate instruction in order to give students an active role in controlling the pace and scope of learning not only positively impacts students, but also increases teacher self-efficacy (Dixon et al., 2014). Educators who have taken part in professional learning that hone these skills for differentiation will, as they implement their learning and see the positive results and balanced relationships between teachers and students

grow and develop, experience increased self-efficacy in their role as a gifted educator. Indicators of the effects of professional learning on educator self-efficacy are present in some of the detailed 30-hour foundational course descriptions, but this element was not pervasive in the document analysis.

The second component of this key finding is that learning is a partnership forged through professional networks and connections. This was a minor theme in the literature, and an important component of underlying motivation to engage in professional learning endeavors. The literature states that adult learning opportunities are most effective when the instructor is a collaborative colleague, demonstrating respect and understanding to participants (Carlson McCall et al., 2018), and that professional effective professional development includes opportunities for collaboration and feedback (Lee & Ritchotte, 2019). Much of the emotionality conveyed during the interviews resulted from participants reflecting on the important figures (e.g., mentors, co-workers, professors) who had shaped their beliefs and practices. Many participants also cited the years of impactful learning opportunities and platforms for collaborating with peers made available through their state and national professional organizations. (Although it is worth noting that some participants shared frustration with repetitive or uninformative learning experienced through these organizations as well.) While the importance of relationships with students to co-own the learning is key in the day-to-day function of educators, relationships with peers and mentors is critical in the long-term satisfaction and growth of an educator in the field of gifted and talented education.

Through the document analysis, the attribute code *support* was characterized through the descriptive codes *relatedness* and *autonomy* sporadically over the course

descriptions. *Relatedness* appeared repeatedly over several course descriptions from a small number of RSCs; this type of descriptive language was not pervasive between regions. As noted earlier, *autonomy* met the very loose criteria of self-paced coursework. Clearly, while relatedness is perceived as an integral experience for the gifted and talented educator, it is a component of professional learning in the 30-hour foundational coursework that needs to be better and more widely addressed. The reciprocal nature of self-efficacy and shared learning between students and teachers, as well as the distinct need for relatedness in professional learning, is underscored by the key finding in this research that learning is a series of partnerships that take many forms and evolve over time.

## Implications

Based on the feedback and analysis of interview responses, participants in this research were able to clearly articulate the importance of readily applicable professional learning for educators of gifted and talented students. Responses repeatedly cited the critical role of knowledge and skills supporting effective differentiation practices, and document analysis illustrated that the *utility, competence, and self-efficacy* components of motivation behind engaging in professional learning are clearly outlined in the course descriptions. These findings underscore the perceived efficacy of the Differentiation module in the 30-hour foundational coursework, and the clear communication around the importance of this learning for educators. Moving forward in updating and refining the other modules in this coursework, the Differentiation module represents an effective model of professional learning whose description and outcomes result in impactful and long-lasting learning for participants. Regarding the flexible nature of the last 12 hours

of the foundational coursework, Participant 6 shared that “customization to our district services was also beneficial” (September 28, 2022), while Participant 2 referred to quality of customized sessions as, “a crapshoot.” Using this feedback, future customized modules (Foundations 4 and 5) should have clear, concrete connections to learning from the previous 18 hours (Foundations 1-3) so that districts may adapt content based on their unique needs, while still supporting best practice, research-based learning from earlier coursework. Future areas for research in this area may include a study of districts who customize professional learning modules to align with their service(s) and goals for programming, and comparing implementation of learning material from the standardized hours versus the customized hours in the classroom environment.

Interview data also highlighted the impact of the Social/Emotional Needs of the Gifted, once again with utility, competence, and self-efficacy components of motivation supporting the positive effects of this course. To a lesser extent, the Nature and Needs of the Gifted module (cited once explicitly) also serves to reinforce some of the learning that also takes place in the Social/Emotional Needs of the Gifted module. Because both of these modules have the capacity to dispel myths around negative behaviors and traits of gifted students, these are useful opportunities to purposefully integrate research-based, best practice information from scholars in the field. Interview participants indicated that clear connections between research and practice increased positive perceptions of professional learning coursework, and both of these modules provide appropriate opportunities to include explicit research-practice connections. Professional development providers should engage in frequent communication with

scholars in the field in order to keep the Nature and Needs and Social/Emotional modules up to date and relevant, and to continue to support the effective motivational components present in these courses. Future areas for study in this area could include an analysis of citations from scholarly research in selected RSC modules, and evaluating the age and accuracy of the information presented.

Participants in this research were all experienced, actively engaged educators of gifted and talented students. Participants 3, 7, and 10 sought out higher education in the field of gifted and talented studies. Not all learners who complete the required 30-hour foundational coursework share these characteristics, and many may simply complete the course because of compliance expectations. Language around *goal value, perception,* and *autonomy* are lacking from all course descriptions. This omission may serve to create a marked difference in the impact of these courses between engaged gifted and talented educators and those only meeting compliance requirements. Lee and Lee (2018) discuss transformational change as a result of professional development, which requires participants to first be owners of their learning and begin with an understanding of how the processes and outcomes are related to their current roles, as well as their personal and professional goals (Lee & Ritchotte, 2019). These descriptions and connections are infrequent and inconsistent in course descriptions, when they are present at all. While the nature of compliance-based coursework does remove an important piece of the autonomy component of motivation, that does not mean that courses cannot be designed to engage the learner with descriptions that allow them to make personal connections to enhance goal value.

*Relatedness* is an area that can also continue to grow as foundational

coursework is refined and updated. Interview findings clearly illustrate the important role of professional networks and connections in applying new learning. With the widespread availability of online tools that make connecting synchronously easy, coursework is not limited to structured in-person meetings or completely asynchronous online interactions. Thoughtfully integrating avenues for participants to interact with one another in a variety of ways and making those possibilities for connecting clear in course descriptions would serve to improve feelings of relatedness across all the 30-hour courses. In this way, professional development providers increase perceived support which serves to support learners in creating a network to provide reflection and authentic feedback on implementation of new learning.

According to the Texas State Plan for the Education of Gifted/Talented Students, teachers responsible for providing gifted and talented services must receive 30 hours of training which include coursework on the nature and needs of gifted/talented students, identification and assessment of gifted/ talented students, and curriculum and instruction for gifted/talented students (Texas Education Agency, 2019). Interestingly, the thematic analysis of interviews demonstrated that participants perceived the most impactful learning to come from course modules not required explicitly in the *State Plan*. While the impact of the Nature and Needs of the Gifted module was referenced by one participant, the bulk of the impactful learning comes from courses that are not necessarily required. As professional development providers look at strategies to improve future courses, designing modules, descriptions, and content that mirror the descriptive and motivational characteristics of the Social/Emotional Needs of the Gifted and the Differentiation may help to improve and sustain the impact of professional

learning to all participants. Furthermore, seeking out ways to bridge connections between learning so that the conceptual understandings taken from the courses explicitly listed in the *State Plan*, along with clearly articulated components to increase motivation across all courses, can be included in the implementation components of the other two courses may create professional learning that can be transformational for all learners.

## Limitations

Perhaps the most significant limitation in this research is the participant sample used for interviews. While all participants met criteria for inclusion in the interviews (educators responsible for gifted and talented services in Texas who had been through the 30-hour foundational coursework), each of the ten participants was a seasoned gifted educator whose experiences and perspectives from years in the field may not necessarily reflect those of the larger population of educators who regularly participate in the 30-hour coursework. A more representative sample would have included teachers new to the field, and ideally some general education teachers charged with providing gifted and talented services via classroom differentiation. This limitation is likely a result of the platform through which participation in interviews was solicited. Participants were limited to TAGT members, who are engaged enough in the gifted and talented education community to interact with email solicitation for interview participation.

In terms of participant demographics, all but one person identified as Caucasian, who self-identified as “multi (Asian/Caucasian).” Only two of the ten participants identified as male, with the rest identifying as female. Seven of the ten participants currently work in suburban school districts with 2000+ students, one participant

represented a large urban district, another represented a rural district, and the final participant represented a town district. All participants currently work in the North Texas area. While the sample does reach the requisite number of participants (a minimum of three (Englander, 2012), with an ideal size reaching between 12-15 (Boddy, 2016), data may not have reached saturation at ten participants because varied backgrounds would have provided a wider range of perceptions and experiences.

Finding participants required me to request that TAGT publish the interview solicitation form multiple times in their email newsletter to members. Additionally, secondary requests for interviewees via a forwarded participation form were shared by colleagues on a social media platform in order to reach a larger audience. Utilizing a larger state-wide organization for disbursement of the participation solicitation form in future research could result in a sample of interviewees who represent a wider scope of experience, demographics (race/ethnicity, location), and roles as educators of gifted and talented students. Utilizing multiple educator organizations as platforms to collect a sample may also result in a greater number of respondents willing to participate in interviews.

Given these limitations, participant responses represented a variety of backgrounds and experiences. The semi-structured nature of the interview questions allowed for an organic flow of conversation, and gave the respondent an opportunity to share insights, memories, and reflections that provided complex interview data. The data yielded thick, rich descriptions of individuals' unique perceptions of their work in gifted and talented education, which generated relevant themes that may play a role in the development of future professional learning coursework.

# APPENDIX A

# PARTICIPANT SOLICITATION FORM

1. What is your role in the field of gifted and talented education?

- Teacher
- Instructional Specialist
- Campus Administrator
- District Administrator
- Other:

2. Have you completed the 30-hour foundational professional development courses outlined in *The State Plan for the Education of Gifted/Talented Students?*

- Yes
- No

3. Where is your school/district located? _____

4. How would you characterize your school/district's location?

- Rural
- Suburban
- Town
- City

5. How large is your total student population?

- Less than 500 students
- 500-999 students
- 1000-1499 students
- 1500-1999 students
- 2000+ students

6. What is your age range?

- 20-30
- 31-40
- 41-50
- 51-60
- 60+

7. What is your sex?

- Male
- Female

8. What is your race/ethnicity?

- White/Caucasian
- Black/African American
- Hispanic/Latino
- Asian/Pacific Islander
- Other: _____

I am willing to participate in an interview about my experiences and perceptions of professional learning in the field of gifted and talented education.

- Yes
- No

My email address: _____

# APPENDIX B

# INTERVIEW QUESTIONS

Hello, and thank you for agreeing to participate in this interview. The purpose of this interview is to gather data for a doctoral dissertation. The topic of this research is teachers' perceptions of teaching gifted and talented students, and the efficacy of the structures (i.e., university preparation programs and ongoing professional development) in place to support their teaching of this student population. Your responses are anonymous, and at any time during or after the interview process you may opt out of further participation. Can you please confirm that you have received and read the informed consent notice sent via email? May I have your consent to begin?

1. Please describe your current role in the education of gifted and talented students.
2. Reflect on when you began teaching gifted and talented students. Did you feel adequately prepared, and why?
3. Describe the characteristics you associate with GT students.
4. Do you think that your perceptions of gifted and talented students have changed over time? Why?
5. When did you complete the 30-hour teacher training required by the Texas State Plan for the Education of Gifted/Talented Students? What do you feel were the most beneficial parts of the training?
6. Describe a professional learning experience that you feel has improved your knowledge and/or skills regarding gifted education.
7. What would you say are the key factors in motivating you to engage in professional development?
8. What motivates you to apply professional learning in the classroom?
9. What professional learning opportunities do you think would improve your skills in teaching gifted and talented students?
10. Share some words or phrases that you think appropriately describe teaching gifted students.

Thank you for your participation and valuable feedback. If there are any follow up questions or points of clarification, may I contact you again in the future?

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