From Misalignment to Realignment: Parent Perspectives on Educational Fit for Highly and Profoundly Gifted Twice-Exceptional Learners

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Dedication

This labor of love is first dedicated to my own HG/PG children, Brendan and Ryan. Your natural curiosity and love of learning inspired me to reimagine education and to advocate for a world where children are not defined by standard expectations.

I could never write a dedication without including my rock, Greg. Thank you for the gift of our family, for supporting my own HG/PG overintensities, for keeping me grounded while I spent the last three years working toward this goal, and for now traveling the world beside me as I advocate for other families.

Acknowledgments

It may sound strange to say that I knew exactly what my problem of practice would be before I even enrolled in doctoral studies, but the more I read, studied, and learned from experts in the field of gifted education, the more I recognized the need for this outlier population of learners and the unique educational challenges they face to be better understood.

Nearly two decades ago, I was a parent with a successful law career and a carefully crafted plan for my young children's educational paths. The first kink in that plan appeared when my oldest child's preschool teacher suggested we have him "tested" while sending home extra fine motor assignments and predicting he would need multi-grade acceleration in the coming years. Like hundreds of parents I have now known with HG/PG children, I was in for a long journey of school advocacy, uncertain decision-making, and hearing teachers say, "I've never seen a child like this before."

Along my journey, I was incredibly fortunate to find many educators who went far out of their way to support my children. They made generous accommodations, policy exceptions, and sometimes even encouraged homeschooling when recognizing the constraints of their school structure. There are many outstanding public school educators who truly go above and beyond for unique learners, and I remain grateful to them.

Nonetheless, there are many families who have been unsuccessful in finding educational fit within traditional schooling. I have met hundreds of these parents, both personally and professionally, whose stories echo many of the experiences described in this study. These are families of exceptionally gifted children, yet gifted education policies are often insufficiently flexible for what these learners need. For those who also have learning challenges, the

misalignment is often even greater. While there is sometimes an assumption that highly gifted learners have particularly easy educational paths, that seems rarely the case. To the families who participated in this study, thank you for sharing your experiences so that we can build greater understanding, increase awareness, and advocate for their inclusion in educational conversations. I hope this work honors both your journeys and the extraordinary learners at the center of them.

I must also acknowledge the extraordinary support of the Bridges Graduate School community. As we learned about creating environments where students find intellectual challenge, social belonging, and opportunities to develop their strengths, it is no surprise that we found many of those same conditions within our cohorts. I am particularly grateful for the mentorship of Dr. Susan Baum, who continually challenged, supported, and inspired me. It was one of Dr. Baum's earliest classes, along with the first book we read, that introduced me to the Five Environments for Growth and Positive Niche Construction, ultimately shaping the foundation of this study. To study under her, write with her, and develop my own work through her expertise has been a tremendous privilege. I am also deeply grateful to my committee members, Dr. Kristin Berman and Dr. Karen Cross, for their guidance, encouragement, and thoughtful feedback throughout this process.

Finally, I must acknowledge my family. My husband Greg has supported every chapter of my adult journey, from corporate attorney to homeschooling parent, full-time volunteer, business owner, researcher, and doctoral student. He has encouraged every new idea and provided a steady foundation through each step of this process. Our sons Brendan and Ryan inspired this study long before it became a dissertation. Their educational journeys challenged me to think differently about learning, talent development, advocacy, and educational fit. Despite

numerous grade accelerations, educational pivots, and remarkable accomplishments, they still insist they do not feel particularly gifted. Perhaps that perspective is its own reminder that children are always more than a score, a label, or an educational designation.

This dissertation was written with hope. Although many participants described significant educational misalignment, they also demonstrated the possibility of educational realignment when learners are understood more fully and when environments become more responsive to their complex and interconnected needs. My hope is that this work contributes to broader conversations about educational fit and encourages schools, educators, and families to imagine more flexible and responsive pathways for our unique learners.

Abstract

Educational misalignment among highly and profoundly gifted twice-exceptional (HG/PG-2e) learners remains underexamined in educational research. This qualitative multiple case study examined the educational experiences of HG/PG-2e learners across public school and homeschool settings through the Five Environments for Growth: academic/cognitive, social, emotional, physical/sensory, and creative. The study explored educational fit, parent advocacy, school withdrawal, and educational realignment across settings.

Findings revealed recurring patterns of multidimensional educational misalignment despite clear evidence of advanced cognitive ability. Participants described academic underchallenge, constrained expression of ability, social isolation, emotional dysregulation, physical and sensory mismatch, limited opportunities for creative expression, uneven recognition of strengths and disabilities, and prolonged parent advocacy. Four integrated findings emerged: (a) educational fit functioned as a dynamic interaction across environments; (b) ideation-production bottlenecks obscured learner capacity; (c) parent advocacy, parallel learning, and school withdrawal emerged in response to mismatch; and (d) homeschooling frequently functioned as a process of educational realignment through reconstructed learning environments.

The study introduces the Educational Fit Alignment Framework, illustrating how misalignment across interconnected environments may constrain learner expression and how environmental realignment may support improved educational fit. Findings suggest implications beyond homeschooling, highlighting the importance of flexibility and multidimensional alignment in supporting HG/PG-2e learners across educational settings.

Contents

7

List of Tables

List of Figures

Chapter 1: Introduction

Public school districts across the United States are facing declines in student enrollment. According to projections, public school enrollment will fall by 2.7 million students between Fall 2022 and Fall 2031 (Scafidi, 2025). Many of these students, including our highest-ability learners, leave public education for alternative education pathways that are commonly referred to as homeschooling. (Scafidi, 2025).

Leaving public school for homeschooling is an increasingly common move for many gifted and twice-exceptional (2e) students. This is especially true of highly and profoundly gifted ("HG/PG") learners, those with cognitive profiles in the top 0.1% of the student population. According to Arlene Estabillo, Community Engagement Manager at Davidson Institute for Talent Development, it is estimated that at least half of the HG/PG youth in its Davidson Young Scholar program have homeschooled at some point (A. Estabillo, personal communication, July 25, 2025).

While differing definitions of "homeschooling" along with varied state filing requirements make it difficult to accurately measure how many advanced learners are homeschooled, their continual population increase within the overall homeschool community is well recognized (Duvall, 2021; Jolly & Matthews, 2017). According to a 2024 literature review regarding gifted homeschool research (Connolly-Sporing et al., 2024), there are likely more than 100,000 gifted learners who currently homeschool across the United States. In a 2024 study of why gifted and 2e learners frequently change schooling options, eight of the nine participants left traditional schooling for some form of homeschooling, primarily for a combination of academic, social, and emotional reasons (Jobe, 2024). Notably, several of the participants described their

learners as “profoundly gifted,” and seven of the nine learners left schools that even provided gifted programming.

Why are families of HG/PG learners leaving public education to homeschool? HG/PG students have unique needs from even their moderately gifted peers. These highest-ability youth exhibit a higher degree of ability, energy, and level of intensity in most of the traits that are identified with giftedness (Wood, 2020, citing Clark, 2008). Furthermore, not only cognitive ability but also social, emotional, physical, altruistic, and cognitive characteristics, behaviors, and development are all found to be unique in children of unusually high intelligence (Wood, 2020).

Because there are rarely distinctions for highly advanced learners’ needs beyond a minimum eligibility threshold to be identified for gifted programming, HG/PG learners are often assumed to have needs similar to more moderately advanced peers. As a result, these highest-ability students are often left “anxious, frustrated, and otherwise unable to reach their intellectual capacity in the majority of school settings across the country” (Schultz, 2018).

Compounding this disconnect between these exceptionally gifted students and traditional gifted programming is the fact that many of these highest-ability learners also have learning challenges. “Twice-exceptional” or “2e” students are those who “demonstrate the potential for high achievement or creative productivity in one or more domains while simultaneously experiencing one or more disabilities” (Reis et al., 2014, p. 222). While estimates from the National Education Association suggested that there are 360,000 2e learners in public schools (National Education Association, 2006, as cited by Speirs-Neumeister, 2024), those statistics are nearly twenty years old. Growing recognition of 2e learners underscores the need for accurate data and identification systems. Yet federal datasets do not distinguish 2e students. National

Center of Education Statistics (NCES, 2024) reports disability only under categories of the Individuals with Disabilities in Education Act (IDEA, 2004), and 2e prevalence data is not collected at the federal level, leaving these learners largely invisible in national statistics (Foley-Nicpon et al., 2013; Maddocks, 2018). Additionally, 2e learners who are not in public schools are not captured in that data, nor are those HG/PG children whose disabilities are masked or who are deemed ineligible for services or accommodations because they are meeting minimum grade-level standards. There are also very likely exceptionally capable learners in special education services who have not been identified as gifted due to identification barriers.

There is often a disconnect described between our highest ability learners and the educators who teach them, particularly those who have not had experience teaching these student profiles. Even when educators recognize the needs of HG/PG learners who have learning differences ("HG/PG-2e"), systemic barriers in school structures and siloed gifted and special education services frequently limit appropriate identification and support. Research notes that limited flexibility, fragmented expertise, and narrow eligibility systems contribute to inconsistent services for 2e students (Foley-Nicpon et al., 2013; King, 2022).

For many HG/PG-2e learners, traditional school settings, even those offering gifted programming, struggle to provide the flexibility, depth, and individualized support these students require to thrive. Baum and Schader's (2024) conceptual "Five Environments for Growth" framework highlights the need to support each learner across intellectual, social, emotional, physical/sensory, and creative domains through their strengths and interests. Thomas Armstrong (2010; 2025) echoes that individualized strength-based approach in his extended concept of Positive Niche Construction, a term originating in biology to describe how many species alter

their environments to meet their basic needs. Armstrong describes how this concept connects to education:

> …what this can mean [ ] is that instead of always having to adapt to a static, fixed, or "normal" environment, which is the mindset of most special education and rehabilitation programs, it's possible for neurodivergent individuals and/or their caretakers to alter the environment in such a way that it matches the needs of their own idiosyncratic brains. In this way, they can be more of who they really are. (2010; p. 17)

Armstrong suggests that when school does not fit the learner, families often build their own. Homeschooling, particularly in its flexible format, enables families to deliberately construct responsive learning ecosystems. These ecosystems draw from community resources, online coursework, mentorships, academic coaching, and flexible pacing to create the conditions where outlier learners can pursue advanced intellectual challenge while simultaneously receiving support for their asynchronous development and learning differences. In this way, homeschooling acts as a customized "positive niche environment," able to evolve as the learner grows.

Statement of the Problem

The problem is that HG/PG youth, defined as those whose IQ scores are at least three standard deviations above the mean, demonstrate academic and cognitive, social, emotional, physical/sensory, and creative characteristics and needs that differ from those of more moderately gifted learners (Baum & Schader, 2024; DeWit & Wood, 2025). These differences become more complex when learners are also 2e, as strengths and challenges interact in ways

that influence how ability is expressed and recognized (Reis et al., 2014; Speirs Neumeister, 2024).

Within traditional school settings, gifted programming often fails to distinguish or further accommodate these needs, particularly at the highest levels of ability (Schultz, 2018; Wood, 2020). As a result, many HG/PG-2e learners experience misalignment between their learning profiles and the conditions of the classroom across academic, social, emotional, and related domains. In response, families often engage in sustained advocacy and, in many cases, develop parallel learning opportunities beyond the school setting in an effort to better align educational conditions with their child's needs. Case study research suggests that homeschooling is frequently pursued following these efforts when alignment cannot be achieved within school systems (Jobe, 2024).

Despite these patterns, existing research has not examined (a) how alignment and misalignment develop across multiple domains of experience for HG/PG-2e learners; (b) how these patterns differ between public school and homeschool settings; or (c) how parents navigate advocacy, decision-making, and withdrawal considerations across these contexts. In addition, while the conceptualization of Positive Niche Construction suggests that students and their support teams can actively construct learning environments to support their individual development, limited research has examined how this process operates in practice. Observing Positive Niche Construction through homeschool design provides a unique lens for observing what can work well for these learners, and what might be viable across educational settings. Without a clearer understanding of these strength-based practices, educational systems remain limited in their ability to provide appropriately challenging and responsive learning environments for the highest-ability learners.

Purpose of the Study

The purpose of this qualitative multiple case study was to examine how Baum and Schader's (2024) Five Environments for Growth framework, including academic/cognitive, social, emotional, physical/sensory, and creative domains, describes the educational experiences of HG/PG-2e learners across public school and homeschool settings. This study also explored the relationship between environmental alignment and Armstrong's (2010; 2025) concept of Positive Niche Construction as an analytical lens for interpreting parent descriptions of advocacy, educational decision-making, withdrawal considerations, and the construction of individualized learning environments intended to better support learner readiness, strengths, interests, asynchronous development, and patterns of functioning.

Significance of the Study

The potential significance of this research lies in its contribution to understanding educational fit among HG/PG-2e learners across multiple domains of development. The findings may inform advocacy and educational decision-making for families and educators while contributing to current discussions surrounding giftedness, twice-exceptionality, educational misalignment, and parent-led educational realignment. The study may also expand understanding of how Positive Niche Construction operates within individualized educational settings designed to support highly advanced and asynchronous learners.

Definitions of Key Terms

Homeschooling

Homeschooling refers to any K–12 education model in which the primary site of instruction occurs outside a traditional, full-time, brick-and-mortar or online K–12 school, and a parent or guardian retains primary responsibility for planning, selecting, coordinating, or

supervising the learner's program of study, regardless of who delivers day-to-day instruction (e.g., parent, tutor, online class, co-op, or college course). This terminology aligns with federal survey definitions of homeschooled learners as those who receive instruction at home "all or most of the time" rather than in a public or private school (NCES, 2023).

For this study, homeschooling includes independent parent-directed programs; public charter or independent-study homeschool programs (also known as non-classroom-based instruction); umbrella programs under which instruction occurs primarily at home or in community settings; and homeschool programs that incorporate tutors, online courses, micro-schools, co-ops, or dual-enrollment/college coursework (e.g., California Dept. of Education, 2025). Homeschooling excludes full-time enrollment in a traditional, site-based public or private school or full-time online school in which the school (rather than the parent) is the official school of record and directs the program of study.

Mildly to Moderately Gifted

Refers to individuals whose full-scale intellectual quotient (FSIQ) scores range from approximately one to just under three standard deviations above the mean (115–144). These learners comprise the majority of students typically identified for school-based gifted programming (Gross, 2000).

Highly and Profoundly Gifted or HG/PG

In this study, "highly and profoundly gifted," or "HG/PG," refers to individuals who score at least three standard deviations above the mean (≥ 145) on an individually administered measure of general intellectual ability. These scores represent approximately the top

0.1% (99.9th percentile) of the general population (Schultz, 2018; Wood & Laycraft, 2020).

HG/PG and Twice Exceptional (HG/PG-2e)

Refers to individuals who (a) score at least three standard deviations above the mean (≥ 145) on an individually administered measure of cognitive ability; and (b) also have a learning difference that impacts their learning in traditional educational environments (Guiding the Gifted Child, 2002, as cited in Davidson Institute for Talent Development, 2025; National Association of Gifted Children, n.d.; Reis et al., 2014).

Traditional Public Education

District-run (noncharter) brick-and-mortar or online public schools that provide classroom-based instruction on a traditional five-day week with primarily teacher-directed instruction, generally based on structured curriculum goals **and state standards**. Students are generally grouped by age (Cal. Code Regs. tit. 5, §11963; Kingsbury, 2021; NCSL, 2023).

Twice-Exceptional (2e)

Learners who exhibit the potential for high achievement or exceptional creative productivity in one or more domains - including mathematics, science, technology, the social sciences, visual-spatial reasoning, or the performing arts - while also meeting federal or state eligibility criteria for one or more disabilities. Such disabilities may include specific learning disabilities, speech and language impairments, emotional or behavioral disorders, physical disabilities, or other health impairments. The intersection of advanced cognitive or creative

abilities with disabling conditions creates a distinct and complex learner profile. In many cases, a student's exceptional talents may obscure the presence of a disability, while the disability may, in turn, conceal the student's giftedness. Consequently, these learners often remain underidentified or underserved, as neither their strengths nor their challenges may be readily apparent in conventional educational assessments or settings (Reis et al., 2014).

Chapter 1 Summary

This chapter introduced the educational experiences of HG/PG-2e learners and the increasing movement of families toward homeschooling following sustained misalignment within traditional public school settings. It established the unique developmental characteristics of HG/PG and 2e learners, including advanced cognitive ability, asynchronous development, and the interaction of strengths and challenges that influence how ability is expressed and supported in educational contexts.

The problem addressed in this study centers on the lack of alignment between these learners' profiles and the structures of traditional school environments, particularly across academic, social, emotional, physical or sensory, and creative domains. While many families engage in sustained advocacy within school systems, existing research suggests that these efforts do not consistently result in appropriately responsive educational conditions, leading some families to pursue alternative pathways such as homeschooling.

This chapter also introduced the conceptual and theoretical foundations that guide the study. The Five Environments of Growth framework provides an organizing structure for examining educational fit across domains, while Positive Niche Construction offers a lens for understanding how families actively shape learning environments in response to misalignment.

Together, these foundations establish the basis for examining how HG/PG-2e learners experience educational environments across settings and how families navigate advocacy, decision-making, and withdrawal processes. Chapter 2 builds on this foundation by reviewing the relevant literature on giftedness, twice-exceptionality, and homeschooling, as well as the conceptual frameworks that inform this study.

Chapter 2: Review of the Literature

This literature review focuses on the areas of research particularly relevant to the educational experiences of highly and profoundly gifted twice-exceptional (HG/PG-2e) learners. It begins with research related to the populations represented in this study, including gifted and 2e learners, includes the additional considerations associated with HG/PG learners, and then those of gifted learners who pursue homeschooling. Given limited research specific to HG/PG-2e learners and to HG/PG or 2e learners in homeschool contexts, this review draws on literature examining these populations more broadly.

Then, this review introduces the conceptual framework and theoretical lens that inform this study. This includes the Five Environments of Growth framework (Baum & Schader, 2024), including a brief review of literature that supports each environment, as well as how these environments have been found to interact together. Current literature supporting the analytical lens for this study, Positive Niche Construction (Armstrong, 2025), is also included. Together, these provide a foundation for examining how learning environments are experienced and shaped across contexts.

Literature Search Strategy

The literature reviewed in this study was identified through a systematic and iterative search process conducted across multiple academic databases, institutional resources, and scholarly search platforms. Primary access to peer-reviewed journals was obtained through the Bridges Graduate School subscription to the LERN database, which provides access to a wide range of education, psychology, and interdisciplinary journals, including *Gifted Child Quarterly* and related publications. Additional database searches were conducted using ERIC (Education

Resources Information Center) and PsycINFO. Google Scholar was used as a supplemental search engine to identify recent publications, trace citation networks, and locate interdisciplinary research not consistently indexed within a single database.

Searches were conducted using combinations of keywords and phrases aligned with the focus of the study, including highly and profoundly gifted learners, twice-exceptionality, educational fit, learning environments, and homeschooling. Search terms were intentionally broad in early stages to capture foundational and seminal work, and then refined to identify more recent and targeted studies.

Primary search terms included: highly gifted; profoundly gifted; highly and profoundly gifted; twice-exceptional; 2e learners; gifted and learning disabled; gifted identification; gifted assessment; ability versus achievement; gifted underidentification; educational fit; school fit; person-environment fit education; learning environments gifted; differentiation gifted education; acceleration gifted; subject acceleration; curriculum compacting; advanced learners classroom; gifted motivation; Self-Determination Theory education; autonomy competence relatedness school; gifted engagement; executive functioning context dependent; executive function variability; gifted and executive functioning; output constraints learning; written output gifted; creativity in the classroom; creative thinking constraints; gifted creativity; ideation versus production; school constraints creativity; homeschooling gifted; gifted homeschooling; alternative education gifted; parent advocacy gifted education; family experiences gifted education; twice exceptional school experiences.

These terms were used in various Boolean combinations to refine results and target specific areas of the literature. Example combinations included: “highly gifted” AND

“educational fit”; “profoundly gifted” AND school; “twice-exceptional” AND identification; “gifted” AND “ability versus achievement”; “gifted students” AND acceleration AND policy; “gifted” AND “curriculum compacting”; “Self-Determination Theory” AND gifted; “executive functioning” AND context AND learning; “creativity” AND “classroom constraints”; “homeschooling” AND gifted students; “parent advocacy” AND gifted education; “gifted identification” AND equity.

Search parameters were refined over time to prioritize peer-reviewed journal articles, highly cited foundational works, and recent publications (generally within the past 5–10 years) relevant to HG/PG and 2e learners. Citation chaining was used extensively, including backward searching of reference lists and forward searching of articles citing key works, to identify additional relevant studies.

In addition to database searches, foundational texts assigned through doctoral coursework were used as anchor sources for the literature review. These included Baum et al. (2021) and Armstrong (2010, 2025), which informed early conceptual framing and guided subsequent database searches.

Additional sources were identified through professional engagement in the field. The researcher’s involvement in co-authoring a chapter on twice-exceptionality for the *Secondary Handbook of Gifted Education* (3rd ed.) (Baum et al., 2026) provided an opportunity to extensively review current reseancesrch, which informed subsequent literature searches and source selection.

Organizational and practitioner-oriented sources were also reviewed to provide context for current standards and practices, including materials from the Davidson Institute and the National Association for Gifted Children (NAGC), particularly position statements and guidance related to identification, programming, and acceleration.

Finally, one pre-publication manuscript was obtained directly from a researcher in the field and reviewed as part of the literature base. In addition, a recent volume on HG/PG learners (DeWit & Wood, 2025) was obtained following direct communication with a co-author and incorporated into the review. These sources were used to inform understanding of emerging research trends and were incorporated in accordance with appropriate citation practices.

Conceptualizations of Giftedness

Giftedness has been defined in multiple ways across research, policy, and practice, and no single definition has been universally adopted. Early work in the field emphasized intellectual ability as measured through standardized testing. Binet and Simon's development of intelligence testing introduced the concept of mental age, which later evolved into the intelligence quotient, or IQ (Binet & Simon, 1905, 1916). Although Binet cautioned against over-reliance on a single score, intelligence testing became a primary method of identifying advanced cognitive ability within educational systems.

In the United States, federal involvement in gifted education emerged in response to concerns that students with advanced abilities were not being adequately identified or served. The Marland Report represented the first formal federal definition of giftedness and marked a shift away from exclusively IQ-based identification (Marland, 1972). This report expanded the

construct to include multiple domains of talent, including creativity, leadership, and specific academic aptitude, and emphasized that students demonstrating high levels of potential require educational services beyond those typically provided in the general classroom. This broader framing continues to influence federal policy, including the definition embedded in the Every Student Succeeds Act, which recognizes students who demonstrate or have the potential to demonstrate high levels of performance across domains and who require differentiated services to fully develop those capabilities (ESSA, 2015).

Further refinement of the construct occurred in the early 1990s, when a group of psychologists, educators, and parents came together to address what they viewed as the limitations of narrowly academic definitions of giftedness. This group, later known as the Columbus Group, sought to develop a more comprehensive understanding of giftedness that accounted for both cognitive and developmental differences. Their definition introduced the concept of asynchronous development, describing giftedness as the interaction of advanced cognitive abilities with heightened intensity and uneven development across domains (Columbus Group, 1991).

Linda Silverman, a psychologist and contributing member of the Columbus Group, played a central role in advancing this perspective. In her work on asynchronous development, Silverman (1997) described how differences in cognitive, social, and emotional development may affect learners' experiences within age-based educational systems. She explained that "the gifted child often feels different from, or out of place with, others," noting that the lack of alignment between developmental readiness and age-based expectations can influence both social relationships and access to appropriate academic content (p. 40). As cognitive

development increasingly diverges from age-based norms, learners may experience growing misalignment with peer groups and instructional pacing.

This perspective shifted attention from external measures of performance alone to the internal experience of gifted learners and their interaction with educational environments. As a result, the concept of asynchronous development provides an important foundation for understanding how gifted learners engage with schooling contexts, particularly when those contexts are not designed to accommodate advanced levels of development.

While these expanded definitions reflect an effort to capture a wider range of abilities and talents, intellectual ability remains a central component of giftedness within both research and practice. High IQ scores continue to serve as a widely recognized indicator of advanced cognitive functioning, particularly at the upper extremes of ability (Schultz, 2018). In this context, measures of intellectual ability provide important evidence of readiness for advanced levels of content, pace, and complexity, particularly when considered alongside research on appropriate educational placement and acceleration (Assouline et al., 2015).

Highly and Profoundly Gifted (HG/PG) Learners

Within the broader population of gifted learners, those described as “highly gifted” (HG) and “profoundly gifted” (PG) represent a group whose developmental profiles differ in meaningful ways from those of moderately gifted peers. Although definitions vary across studies, these learners are commonly identified as those functioning at or beyond three standard deviations above the mean on measures of intellectual ability, a threshold corresponding to approximately the top 0.1% of the population (Gross, 2004; Silverman, 2013; Wood, 2020).

Research focused on learners at these levels has documented patterns of development that extend beyond those typically addressed in general gifted education, including accelerated cognitive development and early abstraction (Gross, 2004; Silverman, 2013).

The literature does not reflect a single, consistently used term for learners functioning at the upper extremes of ability. Researchers and practitioners have used various labels such as "highly gifted," "profoundly gifted," and "exceptionally gifted," along with differently tiered identification systems that distinguish levels within the gifted range (Gross, 2004; DeWit & Wood, 2025; Schultz, 2018). Practice-based organizations, including the Davidson Institute, have drawn attention to the needs of learners at the far right tail of the ability distribution, often using the term "profoundly gifted" to describe students whose cognitive profiles are three or more deviations from the mean and who differ substantially from those typically served within gifted programming (Davidson Institute, 2025).

Differences in terminology reflect variation in how advanced ability is conceptualized. Some approaches emphasize psychometric thresholds, while others focus on developmental characteristics or educational needs. While there are substantial differences in profiles even among those in the top 0.1% in cognitive ability, recent scholarship frequently examines shared patterns across this population (DeWit & Wood, 2025; Gaulbraught, 2025; Johnson, 2024; Wood, 2020, 2024). In some contexts, authors and practitioners have used combined phrasing, such as "HG/PG," to refer more broadly to learners functioning across the upper extremes of the ability distribution, particularly where distinctions between levels are not consistently defined.

Research examining HG/PG learners has consistently emphasized the importance of alignment between learner characteristics and educational context. Across foundational and more

recent work, access to advanced content, flexible pacing, and opportunities for sustained, in-depth exploration are identified as central considerations for supporting continued development (Gross, 2004; Silverman, 2013; Wood, 2020). These needs are closely tied to patterns of accelerated development, early abstraction, and a persistent drive toward complexity, which shape how learners engage with academic material.

More recent scholarship has extended this work by examining how these developmental characteristics interact with contemporary school structures. Wood (2020) described differences in learning pace, depth of understanding, and need for complexity that distinguish learners at the upper extremes of ability. Wood (2024) further examined how these characteristics intersect with features of schooling such as age-based placement and uniform pacing, noting that these structures may limit access to appropriately challenging learning experiences. Johnson (2024) similarly described how classroom organization and instructional expectations can constrain opportunities for meaningful engagement when adjustments for advanced levels of development are not made.

Work focusing on learner experience has added further context to these findings. Gaulbraught (2025) examined how intellectual intensity, sustained curiosity, and depth of interest shape learners' interactions with educational environments, highlighting the ways in which these characteristics may influence engagement when opportunities for depth and complexity are limited. This line of work places greater emphasis on how learners experience educational contexts, rather than focusing solely on structural features.

Recent synthesis work has further clarified the relationship between advanced cognitive development and educational context. DeVries and Wood (2025) emphasized the importance of

aligning educational environments with levels of cognitive development, drawing together research on pacing, depth, and complexity to highlight conditions associated with continued growth. In doing so, this work contributes a more integrated account of how learner characteristics and environmental features interact, reinforcing the importance of examining educational fit as a central construct in understanding the experiences of HG/PG learners.

Taken together, this body of literature has established a clear understanding of the developmental characteristics associated with HG/PG learners and has emphasized the importance of alignment between learner needs and educational context. Foundational and recent work has described patterns of accelerated development, advanced reasoning, and the need for depth and complexity, while also examining how features of schooling, such as pacing, grouping, and curriculum structure, may shape opportunities for engagement (DeWit & Wood, 2025; Gross, 2004; Johnson, 2024). Research has also begun to incorporate learner perspectives, offering insight into how these characteristics are experienced within educational environments (Gaulbraught, 2025).

Yet, this work has most often examined these elements in isolation, focusing either on learner characteristics, features of schooling, or individual experiences. Fewer studies have considered how these elements interact across multiple domains of development or how patterns of alignment and misalignment may unfold across educational contexts over time. As a result, understanding how educational environments are experienced, navigated, and reshaped in response to highly advanced levels of development remains an area that warrants further examination.

Twice-Exceptionality

The term twice-exceptional (2e) refers to students who demonstrate exceptional potential or talent in one or more domains while simultaneously experiencing challenges in learning, attention, or socio-emotional functioning that may interfere with the full expression of their abilities (Baum et al., 2026; Peters et al., 2019; Reis et al., 2014). This conceptualization reflects the recognized coexistence of strengths and challenges within the same learner and the complexity of identifying and supporting these profiles within educational settings (King, 2022; Reis et al., 2014; Ronksley-Pavia, 2025).

Despite increased attention in both research and practice, the coexistence of high ability and disability is often perceived as contradictory within educational contexts. Assumptions that giftedness and disability are mutually exclusive continue to influence identification practices, contributing to patterns of misidentification and underidentification (Baum et al., 2026; Ronksley-Pavia, 2025). As a result, learners whose profiles include both advanced ability and areas of difficulty may not be fully recognized within systems that are structured to identify strengths and disabilities separately.

These assumptions shape how students are identified and supported within school settings. Students identified with disabilities are more likely to receive remedial or special education services without concurrent attention to areas of strength (King, 2022; Peters et al., 2019). Conversely, students with high ability may compensate for underlying learning difficulties through advanced verbal skills or problem-solving abilities, which can obscure areas of challenge and delay identification.

Patterns of uneven performance are common in 2e learners. Strengths and challenges may interact in ways that produce variability across tasks, settings, or domains. As a result, learners may not consistently meet expectations associated with either gifted or disability classifications. This variability has been associated with underidentification and discrepancies between demonstrated ability and observed performance (Baum et al., 2026; Reis & McCoach, 2000).

Misinterpretations of behavior may occur under these conditions. Observable difficulties may be prioritized in instructional decision-making, while indicators of high ability receive less attention, particularly when challenges are more immediately visible (Baum et al., 2026; Haase & Hancock, 2022). As King (2022) notes, educators may be more attuned to deficits than to signs of advanced ability when both are present within the same learner profile.

2e learners present with a distinct constellation of cognitive, emotional, and educational needs. The interaction of giftedness and disability produces profiles that differ from those of same-age peers identified solely as gifted or as having disabilities (Assouline & Whiteman, 2011; Baum et al., 2026). These learners may demonstrate advanced reasoning or domain-specific strengths alongside difficulties with processing, organization, or regulation, resulting in patterns of performance that vary across contexts.

Addressing these profiles requires attention to both areas of strength and areas of difficulty. Instructional approaches that focus exclusively on remediation or exclusively on enrichment may not fully support development. Research has emphasized the importance of approaches that recognize the interaction between strengths and challenges and that provide

opportunities for learners to engage at appropriate levels of complexity while also receiving targeted support (Assouline & Whiteman, 2011; Baum et al., 2026; Ronksley-Pavia, 2025).

Research examining 2e learners has identified challenges related to alignment between learner needs and educational context. When strengths and challenges are not recognized together, students may be placed in instructional settings that do not reflect their full profile, limiting opportunities for engagement or growth (Baum et al., 2026; Peters et al., 2019). In some cases, emphasis on areas of difficulty may result in reduced access to advanced content, while expectations associated with gifted identification may not account for variability in performance.

HG/PG and 2e

Although a growing body of research has examined 2e learners and, separately, the needs of HG/PG learners, limited work has focused specifically on learners who exist at the intersection of these populations. Existing literature has described characteristics associated with high levels of cognitive ability as well as the complexities of 2e profiles, but these areas have most often been examined independently (Baum et al., 2026; Peters et al., 2019; Ronksley-Pavia, 2025).

Recent work has begun to move toward more integrated understandings of learner profiles that include both advanced ability and areas of challenge (Baum et al., 2026; Ronksley-Pavia, 2025). However, research has not yet fully examined how these characteristics interact at the upper extremes of ability or how educational environments respond to learners whose profiles reflect both high levels of cognitive development and variability in performance.

This intersection highlights the importance of examining educational fit for learners whose needs may extend beyond the scope of existing gifted or special education frameworks. Understanding how these learners experience educational contexts requires attention to both the level of ability and the interaction between strengths and challenges across domains.

Together, this body of literature establishes a foundation for understanding 2e learners as individuals whose profiles reflect the interaction of advanced ability and areas of difficulty, as well as the challenges associated with identification and support. It also underscores the importance of examining how these characteristics are experienced within educational environments, particularly in relation to alignment between learner needs and instructional context. These considerations provide a basis for further examination of how educational fit is constructed, experienced, and adjusted for learners whose profiles reflect both high levels of ability and variability across domains.

Conceptual Framework: The Five Environments for Growth

To examine these patterns more systematically, this study draws on the Five Environments for Growth (Baum & Schader, 2024), developed in the context of work with 2e learners. This framework emphasizes that development is shaped through the interaction between learner characteristics and multiple dimensions of the environment rather than a single domain of experiences (Reis et al., 2025). As such, it provides a structure for examining how educational contexts are experienced across interconnected domains.

Academic or Cognitive Environment

The academic or cognitive environment refers to the degree to which instruction aligns with a learner's level of readiness, pace of learning, and need for complexity. Research on advanced learners has identified the importance of access to appropriately challenging content, accelerated pacing, and opportunities for sustained engagement with ideas (Gross, 2004; Silverman, 2013; Wood, 2020). For 2e learners, this alignment is complicated by variability in performance, which may obscure readiness when evaluation is based primarily on observable output (Baum et al., 2026; Reis et al., 2014). When instructional conditions do not reflect these factors, learners may experience reduced engagement or inconsistent performance that does not accurately represent underlying ability.

Social Environment

The social environment reflects opportunities for learners to experience a sense of belonging through interactions with peers (including differently-aged and even adults) who share similar levels of intellectual ability, interests, and communication styles. For advanced learners, social connection is often closely tied to intellectual compatibility rather than chronological age (Gross, 2004; Silverman, 2013). Even in settings designed for advanced learners, grouping practices may include learners with a wide range of abilities and interests (Gross, 2004). Under these conditions, proximity to other advanced learners may not result in a sense of belonging if there is not sufficient alignment in level, pace, or areas of interest. For 2e learners, variability in communication or processing may further shape social experiences (Baum et al., 2026).

Emotional Environment

The emotional environment encompasses factors related to psychological safety, self-concept, and the ways in which ability, effort, and behavior are interpreted within educational contexts. For learners whose performance does not consistently reflect their level of understanding, interpretation of behavior may influence how they are perceived and supported (Baum et al., 2026; Reis et al., 2014). When observable performance is used as the primary indicator of ability, learners may receive feedback that does not reflect their underlying capabilities. Over time, these negative interpretations may shape how learners understand their abilities and how they engage with learning (Reis & McCoach, 2000).

Physical or Sensory Environment

The physical or sensory environment refers to the ways in which environmental conditions interact with learner needs related to attention, sensory processing, and regulation. This includes factors such as lighting, noise, visual complexity, movement within the environment, and the structure of physical space. Work in environmental psychology, classroom design, and special education has examined how these conditions relate to attention and participation, particularly for learners with differences in sensory processing or regulation (Barrett et al., 2015; Evans & Wachs, 2010). Environmental demands related to sensory input, movement, and transitions may influence how learners sustain attention and participate in learning activities

Creative Environment

The creative environment refers to the extent to which educational contexts nurture curiosity, idea generation, and the development of original or complex work. This includes access to open-ended tasks, unique tangible artifacts, flexibility in approach, and the ability to engage with ideas beyond predetermined outcomes. In this sense, the creative environment reflects the conditions under which learners are able to think expansively, make connections, and pursue ideas in depth. Research in gifted education has emphasized the role of classroom environments in shaping the creative process, while also noting variation in how such environments are defined and implemented (Lee et al., 2021). Instructional structures that emphasize correctness, completion, or replication may limit opportunities for independent idea generation or alternative forms of expression, particularly for learners whose thinking extends beyond standard formats.

Taken together, these domains are conceptualized as interacting dimensions of the learning environment rather than as independent conditions. Research in gifted and 2e education has emphasized that development occurs through the ongoing relationship between learner characteristics and environmental context, with multiple aspects of experience operating simultaneously (Baum & Schader, 2024; Reis et al., 2025). While these dimensions are often considered separately, less attention has been given to how they operate together within school settings. Within this framework, the continued interconnection of academic, social, emotional, physical or sensory, and creative dimensions provides a more comprehensive way of examining how educational environments are structured and experienced.

Disconnect with Traditional Public Education

Given how unique HG/PG-2e learners' needs are beyond those of same-aged peers, it is no wonder that there is a disconnect for many of these students in traditional public education:

> Since the advent of graded schools, children with extremely high cognitive abilities and those with extraordinary special talents have had trouble fitting in. With intellect developing at one-and-one-half, one-and-three-quarters, or even double the usual rate, an age-graded curriculum poses enormous academic problems, which, unaddressed, sometimes spill over into the social arena (Hollingworth, 1942, as cited by Kearney, 1996).

Many districts have eliminated gifted programming in a failed attempt to promote equity (Peters, 2022). Other schools fail to recognize the asynchronous social and emotional facets or other complexities of gifted learners, utilizing them as student tutors or offering no differentiation other than acceleration, which is often either not the right fit or not nearly enough (Jobe, 2024; Jolly, 2013).

2e learners often find significant disconnects between their asynchronous learning needs and classroom-based learning, particularly with access to advanced programming (Foley-Nicpon et al., 2013). A recent literature review of gifted homeschooling notes:

> Parents of students who are 2e may be particularly motivated to pursue alternative educational settings that allow their children to receive the help and support they need across academic subjects. In our personal experiences, families of 2e students are among the most dissatisfied with their children's education. 2e students who receive intervention for their intellectual ability alone -not uncommon due to the stronger policy framework

> and available resources in public education - may act out in response to the lack of challenge, especially those who are placed in a special education classroom (Connolly-Sporing, 2024, p. 640).

Moreover, research shows that even where gifted programming exists and students are identified, it is often not enough for these students to thrive. In 2024, the author of this study (Jobe, 2024) conducted research as to reasons why gifted and 2e families frequently change schools. In a qualitative case study interviewing nine parents of gifted youth, six of whom were 2e learners, eight of the nine families had left schools that even had gifted programming. These families had tried many types of class models, including traditional public, private, charter, magnet, Montessori, Spanish immersion, and online school. When asked what primary reasons spurred their need to change schooling, all nine parents described lack of academic challenge, even despite several being grade accelerated; five of the nine also described social issues, and four of the nine identified emotional well-being. These findings mirror those of earlier published studies as to why many highly gifted and/or 2e learners do not thrive in traditional education.

Gifted-2e Homeschooling

Where, then, do HG/PG-2e learners find an educational system that meets their needs? The literature demonstrates that for many, homeschooling becomes the answer (Connolly-Sporing, 2024; Jobe, 2024; Jolly, 2013; Kula, 2018; Young, 2023).

Homeschooling has “exploded” (Jolly, 2020) in recent years, and not just as a result of COVID shutdowns (Connolly-Sporing, 2024; Duvall, 2021). According to data from the National Center for Education Statistics (2021), approximately 3% of children in the United States were homeschooled in 1999. By 2019, the most recent year for which federal data on homeschooling is available, this figure had increased to 13%. More recent statistics from 21 of

the 30 states that track homeschool data show that homeschool trends continue to increase through the 2023-2024 school year (JHU School of Education, 2024). This is even as the total number of school-age children decreases with national population decline.

The homeschool movement of the 1980s and 1990s was primarily based upon conservative faith-based ideologies that rejected more "liberal" teachings by secular public education (Van Galen, 1991, 1998, as cited by Kula, 2018). However, in recent decades, as school choice has become more popular and resources have grown, so too have the motivations for homeschooling. In 2019, research conducted by the U.S. Department of Education asked parents of homeschooled students to identify the single most important reason they homeschool their child. The most common was a concern about school environment, such as safety, drugs, or negative peer pressure (25%). The second most important reason was dissatisfaction with the academic instruction at other schools (15%). Religious motivation fell to third place (13%) (National Center for Education Statistics, 2025)

For those who choose homeschooling because of dissatisfaction with academic instruction elsewhere, many of these students are gifted or 2e (Connolly-Sporing, 2024; Jobe, 2024; Jolly & Matthews, 2017; Kula, 2018). As noted by Jolly (2013), parents of gifted learners often choose homeschooling only after significant attempts to work with public schools to meet their children's needs failed. Jobe (2024) found that of the nine gifted-2e learners who changed schools, eight of the nine learners found their "most ideal fit" while homeschooling.

A recent literature review (Connolly-Sporing et al., 2024) suggests that as many as 140,000 gifted-2e learners are currently homeschooling in the United States, and that even that number may be underestimated. Difficulty researching the gifted homeschool population is

primarily twofold: one dealing with defining giftedness and 2e, and the other with defining homeschooling.

On the one hand, as this review highlights, many homeschool learners may not be identified as gifted or 2e. Many families who recognize their child's higher abilities or learning differences begin to homeschool at early ages before they would typically be identified by a school district (Jobe, 2024; Young, 2023). Gifted identification also varies from state to state (Connolly-Sporing, 2024) and even district to district, and districts that do not offer gifted services may not offer identification at all. Differences also stem from varied state laws and regulations, funding differences, and variability in practice (Connolly-Sporing, 2024).

Identifying how many K - 12 students homeschool is an additional challenge. Only 30 of the 50 states track homeschooling, and even that is likely skewed by family underreporting (JHU School of Education, 2024, October 16). The term "homeschooling," like "gifted," is also weakly defined. In states like California that provide nonclassroom-based charters or independent study programs, students who are effectively homeschooling may be counted by state-funded public metrics. Likewise, homeschool students may also be officially enrolled as private students under a homeschool umbrella or "cover school." This is a legally recognized private school that enrolls students under its private school status, providing assistance with state-mandated record-keeping, transcripts, etc. (Coalition for Responsible Home Education, n.d.). Some homeschoolers may also identify more as private "microschool" students, generally defined as "small, tuition-based schools (serving around 15 students) that are designed to offer a more personalized and flexible learning experience compared with traditional schools" (Ohls et al., 2025). Microschools serve both part-time (i.e., one day a week) and full-time students.

With vague terminology, lack of established identification, and very few reporting requirements, the number of HG/PG-2e homeschoolers is especially difficult to ascertain. Given the estimates from Davidson Institute, though, indicating that it is likely that more than half of its HG/PG learners have homeschooled at some point (A. Estabillo, personal communication, July 25, 2025), we do know that they exist and that their unique needs and circumstances are crucial to recognize and support.

Positive Niche Construction

Positive Niche Construction is a concept that Armstrong (2010, 2025) adapted from evolutionary biology, describing how organisms modify their environments to enhance their chances for survival. In the context of education, particularly for students with both high abilities and disabilities, Armstrong applies a strengths-based approach where students and their learning support teams create individualized environments designed around the student's unique strengths, interests, and goals. In *The Power of Neurodiversity* (2010), Armstrong explains what Positive Niche Construction means for those with neurodiverse learners, such as our HG/PG-2e students:

> Instead of always having to adapt to a *static, fixed,* or *"normal"* environment, it's possible for them (and their caregivers) to alter the environment to match the needs of their own unique brains. In this way, they can be more of who they really are (pp. 17-18).

Armstrong also makes the connection between Positive Niche Construction and homeschooling:

> In some cases, parents have discovered that the schools are so unresponsive to their requests for changes to the classroom environment that they decide to take them out of school and homeschool them. This gives them more freedom in constructing positive niches (p. 53).

Literature is limited as to specifically how homeschool learners, particularly those who are HG/PG-2e, create their own positive niche environments for learning.

Educational Fit Across Environments

Educational fit in this study is understood as the alignment between a learner's profile and the conditions of the learning environment across domains. Although educational fit is widely referenced in gifted education, it is often inferred from student outcomes rather than examined directly as the interaction between learner characteristics and educational context. Generally, it has been associated with patterns of engagement, motivation, and development, particularly when instructional conditions reflect a learner's level of readiness, pace, and need for complexity (Gross, 2004; Silverman, 2013). For HG/PG-2e learners, this alignment extends beyond academic placement to include social, emotional, physical, or sensory, and creative dimensions, each of which may influence how ability is expressed, interpreted, and supported within a given setting (Baum et al., 2026; Reis et al., 2014).

When alignment is limited, research has documented patterns of disengagement, underachievement, and variability in performance that do not accurately reflect underlying ability (Reis & McCoach, 2000). For 2e learners in particular, observable performance may not fully represent learner capacity because advanced cognitive ability and disability-related challenges interact in complex ways (Baum et al., 2026; King, 2022). In these contexts, educational fit is not solely a matter of placement or access, but of how learning conditions across domains support or constrain engagement and development.

The Five Environments of Growth framework (Baum & Schader, 2024) provides a structure for examining this alignment across public school and homeschool contexts. In this

study, the framework is used to analyze how learning conditions within each domain contribute to patterns of alignment and misalignment, and how these patterns shift across educational settings. Attention is also given to the role of parents in navigating these environments, including advocacy, decision-making, and withdrawal considerations.

Intersection of HG/PG, Twice-Exceptionality, and Educational Fit Literature

Although gifted education, twice-exceptionality, and gifted homeschooling have each been explored within existing scholarship, these areas have often remained fragmented within the literature. Research specifically examining HG/PG learners has emphasized asynchronous development, advanced cognitive functioning, and educational mismatch, while 2e scholarship has more frequently focused upon identification challenges, disability masking, and uneven academic performance. Gifted homeschooling literature has similarly identified educational dissatisfaction, flexibility, and individualized pacing as important factors in school withdrawal decisions. However, limited research has examined the intersection of HG/PG-2e learners, multidomain educational fit, and ecological responsiveness across educational environments. Table 2.1 summarizes several of these intersecting areas and remaining gaps within the literature.

Table 2.1

Intersecting Literature and Remaining Gaps Related to HG/PG-2e Educational Fit

Literature Area	**Common Focus in Existing Literature**	Ongoing Limitations Relevant to the Present Study
2e literature (e.g., Baum et al., 2014; Baum et al., 2026; Foley-Nicpon et al., 2013)	Masking, underachievement, accommodations, executive functioning, uneven performance, and talent development among gifted learners with coexisting	HG/PG learners are frequently collapsed into broader gifted populations, with less attention to highly advanced cognition, radical asynchrony, or

	disabilities	multidimensional educational fit.
HG/PG literature (e.g., Gross, 2004; Schultz, 2018; Wood et al., 2024)	Asynchronous development, developmental intensity, advanced cognition, social-emotional complexity, and mismatch with age-based educational systems	Limited examination of how educational environments dynamically interact with HG/PG-2e learner profiles across the five environments for growth
Gifted homeschooling literature (e.g., Connolly-Sporing et al., 2024; Jolly & Matthews, 2018)	Individualized instruction, flexibility, learner-centered education, alternative educational pathways, and parent motivations	Homeschooling is often framed as school choice or educational preference, which may not fully capture homeschooling as a last viable option following prolonged school misalignment or the ongoing construction of fit across the Five Environments.

Together, these intersecting gaps suggested the need for a multidimensional examination of educational fit among HG/PG-2e learners across educational contexts. The present study, therefore, explored how environmental alignment, parent advocacy, and educational decision-making interacted across academic/cognitive, social, emotional, physical/sensory, and creative domains of experience within both public school and homeschool contexts.

Chapter 2 Summary

This chapter examined literature relevant to the educational experiences of HG/PG-2e learners across several interconnected areas, including (a) conceptions of giftedness, (b) research on HG/PG learners; (c) twice-exceptionality; (d) patterns of disconnect between these learners and traditional school environments; (e) the rise of gifted and 2e homeschooling; (f) educational fit across environments, and (g) the conceptual and theoretical foundations guiding this study. Across these areas, research provides a foundation for understanding advanced cognitive development and the interaction of strengths and challenges; however, no single body of literature fully captures the experiences of HG/PG-2e learners across educational contexts.

Existing research on HG/PG learners emphasizes advanced cognitive development and the need for access to appropriate level, pace, and depth, while research on 2e highlights uneven development, masking, and challenges in identification and support. These bodies of literature have largely developed in parallel, with limited integration at the intersection of high ability and learning differences, particularly at the highest levels of ability.

Research examining school contexts describes structural features such as age-based grouping, standardized pacing, and expectations for performance that may contribute to misalignment for learners whose development diverges from grade-level norms. Likewise, research on educational fit has typically inferred alignment from outcomes such as achievement or placement, with limited examination of how fit is experienced across interacting domains. Similarly, literature on gifted and 2e homeschooling identifies alternative pathways pursued following sustained misalignment, yet provides limited analysis of how the families moved towards school withdrawal or how learning environments are intentionally constructed and adjusted across settings.

The Five Environments of Growth framework offers a structure for examining educational experiences across academic, social, emotional, physical or sensory, and creative domains. Positive Niche Construction and Self-Determination Theory further contribute to understanding how environments are shaped and how motivation operates. However, these frameworks have not been widely applied to examine HG/PG-2e learners across educational settings.

The purpose of this study was to fill the gap in the literature that examines how educational fit is experienced across domains, how patterns of alignment and misalignment

develop across settings, and how families navigate and actively construct learning environments. These gaps provide the basis for the qualitative case study design described in Chapter 3. The research questions guiding this study were – put research questions here even though they will be repeated in subsequent chapters

Chapter 3: Methodology

This chapter describes the qualitative case study methodology used to examine how the educational needs of highly and profoundly gifted twice-exceptional (HG/PG-2e) learners are supported across traditional public school and homeschooling environments. The study centers on parents' perspectives regarding how their children's academic and cognitive, social, emotional, physical and sensory, and creative needs are understood and addressed within each setting. It also examines parents' advocacy and decision-making, their reasons for withdrawing from public school, and the strategies used to construct individualized learning environments through homeschooling.

The study is guided by two research questions focused on patterns of environmental alignment across settings and the role of parents in navigating educational pathways. The Five Environments of Growth (Baum & Schader, 2024) is used to organize analysis, while Positive Niche Construction (Armstrong, 2025) is applied as an analytic lens to interpret how environments are intentionally designed to fit learner needs.

Semi-structured interviews serve as the primary source of data, supported by a brief eligibility screener. Data are analyzed using Bingham's (2023) five-phase hybrid qualitative analysis model, which integrates deductive coding aligned to the conceptual framework with inductive analysis to identify within-case and cross-case patterns and actionable findings.

Research Questions

This qualitative case study examines how parents of HG/PG-2e learners describe their children's educational experiences across public school and homeschool settings. The Five Environments for Growth are used to examine experiences across domains of learner development. Positive Niche Construction is applied as an analytic lens to interpret patterns of misalignment and realignment.

Data are collected through a brief eligibility screener and in-depth semi-structured interviews with parents. The following research questions guide the study:

1. How does the Five Environments of Growth framework describe the experiences of HG/PG-2e learners in both public school and homeschool settings?
    a. What are the public school experiences of these learners across each environment?
    b. What are the homeschool experiences of these learners across each environment?
2. What is the role of the parent(s) in advocacy, decision-making, withdrawal considerations, and realignment across these educational settings?

Researcher Biography

Lisa Jobe (JD, The George Washington University Law School; BA, Economics and Political Science, Case Western Reserve University) is currently a doctoral candidate at Elmbridge University, formerly known as Bridges Graduate School for Cognitive Diversity. Lisa began her career as a corporate attorney before pivoting to support the unique educational needs of her HG/PG and HG/PG-2e children through advocacy and eventual homeschooling. During

that time, she served in many educational roles: as a volunteer parent, teacher, co-op founder, school board director, and on several advisory boards.

As her children grew more independent, Lisa began working professionally with other HG/PG families. In 2022, she co-founded Sequoia Gifted and Creative, serving HG/PG-2e learners and their families across the U.S. and internationally with school advocacy, homeschooling, and parent support. Through her practice, Lisa has worked with more than 300 families whose children's cognitive abilities are three or more standard deviations from the mean.

In addition to her practice, Lisa is a research scholar, presenting innovative findings and practices at national and international conferences such as National Association of Gifted Children (NAGC) and World Council for Gifted and Talented Children (WCGTC). This includes case study research as to why gifted and 2e children frequently change school environments, as well as a pilot study examining highly-HG/PG-2e homeschool learners' motivations through the lens of Self-Determination Theory (Deci & Ryan, 2000). She has also co-written two book chapters on 2e, including one for the *Secondary Handbook of Gifted Education.*

Lisa is also an avid volunteer in the educational community. She serves on the Board of Directors at the Gifted Homeschoolers' Forum (GHF) as the Director of the International Gifted/2e Virtual Co-Op, which she designed and leads. She also leads parent support groups through Davidson Young Scholars (DYS) and Serving the Emotional Needs of Gifted (SENG) and is a frequent speaker at national and international conferences on the unique needs of HG/PG youth.

Description of the Setting, Sampling Procedures, and Participants

This study was conducted entirely online using secure, encrypted videoconferencing for interviews, allowing participation from families across the United States. Because the population of HG/PG-2e learners is small and geographically dispersed, online data collection provides equitable access and broader representation than would be feasible with in-person methods (Creswell & Poth, 2018). All participation occurred remotely and at a time convenient for families, with no in-person interactions.

This study employed purposive sampling to ensure participants aligned with the research focus and could provide information-rich cases (Patton, 2015). Eligible participants were parents or legal guardians of current or former K–12 HG/PG-2e learners who have (a) been identified as highly or profoundly gifted through qualifying Wechsler scores or acceptance into the Davidson Young Scholars program, (b) an identified learning disability or formal documentation of disability (IEP, 504 Plan, or clinical diagnosis), and (c) experienced both traditional U.S. public schooling and homeschooling for at least one academic semester each, enabling meaningful comparison across settings.

Given the rarity of the HG/PG-2e population, purposive sampling was supplemented by convenience sampling and snowball sampling, allowing participants to share recruitment materials within their networks. Convenience sampling is commonly utilized in studies targeting low-incidence populations to balance feasibility and depth of inquiry (Palinkas et al., 2015). Recruitment took place through national gifted organizations, homeschool communities, parent support networks, and social media groups serving gifted and 2e families. Online recruitment is

an appropriate strategy for reaching a low-prevalence population and maximizing diversity within a feasible timeline (Merriam & Tisdell, 2016).

The target interview sample included ten parent participants, consistent with qualitative case study recommendations emphasizing depth over breadth and ensuring sufficient cases for cross-case analysis (Creswell & Poth, 2018; Yin, 2018).

The screening survey was completed by 16 potential participants. Of those, all but one qualified; the one who did not qualify has a child who met the IQ threshold but did not have a diagnosed disability. The remaining 15 parents were sent emails with introductions and the parent consent form. 11 of those parents returned signed consent forms and scheduled interviews. Unfortunately, one parent had a family emergency that prevented their participation. The other 10 parents completed the interview process. At the conclusion of those interviews, the researcher and dissertation chair determined that there was thematic saturation. The researcher then closed the screener to further respondents and properly removed confidential documentation and identifiable personal information from the audit trail.

Research Design

This qualitative case study examines how the academic, social, emotional, creative, physical, and motivational needs of HG/PG-2e learners are addressed in traditional U.S. public-school environments and in homeschooling environments intentionally designed by parents to create individualized positive educational niches. Case study methodology is appropriate for examining complex educational phenomena within real-world contexts where the boundaries between the phenomenon and its environment are not clearly defined (Yin, 2018).

Eligibility criteria ensured that all participants are parents of HG/PG-2e learners with both formally recognized giftedness and learning differences formally identified as learning disabilities. Cognitive eligibility required either (a) a standard score of 145 or higher on an individually administered Wechsler intelligence test (WISC-V, WISC-IV, or WPPSI-IV) or (b) acceptance into the Davidson Young Scholars (DYS) program. The Wechsler family of assessments was chosen due to strong evidence of reliability, validity, and widespread application in educational and clinical settings, as well as the availability of broad composite scores (e.g., Full Scale IQ, General Ability Index) that provide the most stable indicators of global cognitive ability (Kaufman et al., 2016; Wechsler, 2012, 2014; Weiss et al., 2016). Other composites, such as the Nonverbal Index (NVI) and Verbal Expanded Crystallized Index (VECI), were also included to broaden access to gifted identification for twice-exceptional learners (National Association for Gifted Children (NAGC), 2018; Raiford et al., 2015). Including DYS acceptance as an eligibility pathway enhanced ecological validity by aligning participant selection with real-world identification and support processes used for HG/PG learners, while maintaining rigorous standards for construct validity (Assouline et al., 2020).

2e eligibility required parent confirmation that their learner had a learning disability diagnosis, such as a clinical diagnostic assessment, an Individualized Education Program (IEP), or a Section 504 Plan. Parents also confirmed that their learner has been enrolled in both traditional public school and homeschool environments for at least one academic semester, ensuring they have experienced both systems relevant to this study's focus on comparative educational fit.

Data was analyzed using Bingham's (2023) five-phase hybrid qualitative analysis model, which incorporates both inductive and deductive coding, structured memoing, and iterative analytic questioning. This approach supported alignment between participants' lived experiences and the study's conceptual framework.

Instrumentation

The primary research instrument used in this study was a semi-structured interview protocol developed to align directly with the study's research questions. The protocol included open-ended questions designed to elicit detailed parent descriptions of: (a) how parents of HG/PG-2e learners describe their children's experiences within public school environments across the Five Environments for Growth, and how these experiences are reflected following the transition to homeschooling; and (b) the factors parents identify as contributing to patterns of disengagement, advocacy, and withdrawal from public school. Semi-structured interviewing is appropriate for qualitative studies seeking to understand participants' lived experiences while allowing for depth and flexibility in responses (Creswell & Poth, 2018).

Structured interview questions were accompanied by additional prompts that encouraged elaboration and clarified examples while preserving participant voice. This flexibility allowed the protocol to adapt to individual experiences and supported consistency in addressing key constructs across all cases. The protocol was intentionally aligned with the study's conceptual framework, the Five Environments for Growth (academic/cognitive, social, emotional, creative, and physical/sensory). At the end of each interview, parents were provided the opportunity to reflect on (a) what advice they have for parents with learners like theirs, and (b) what they would like public schools and educators to know.

A brief eligibility screener was used prior to interviews to verify inclusion criteria related to cognitive identification (Wechsler-based or DYS admission), disability confirmation, and experience in both public-school and homeschooling settings (See Appendix A). Minimal demographic information was also collected to provide context for interpreting families' experiences. These optional questions included current learner age and grade level, state, community setting (rural, suburban, urban), race/ethnicity, primary homeschooling parent education, household work configuration during homeschooling, and first-/second-generation American status. These factors were selected because they may influence access to educational services and homeschooling resources. All items were optional.

Data Collection

Data collection occurred in two steps. First, a brief eligibility screener confirmed parents' qualification based on cognitive and disability criteria and verified that the child has experienced both public-school and homeschool settings. Demographic questions were included at the end of the screening survey. These were optional, used solely to describe the sample and provide context for analysis, and are not used to determine eligibility. This information supported interpretation of the findings while maintaining participant privacy. Once the screener was submitted, eligible parents were then sent an informed consent form to review. If they then decided to participate, they returned the signed consent form.

Second, a semi-structured interview was conducted remotely via secure videoconferencing. Interviews lasted between 75 and 110 minutes, and elicited parents' descriptive and interpretive perspectives regarding: (a) the extent to which their child's needs were met in traditional public school; (b) factors contributing to withdrawal from that setting; (c)

strategies and supports used to construct individualized homeschool education; and (d) the extent to which their child's needs were met through homeschooling.

Data Management/Privacy

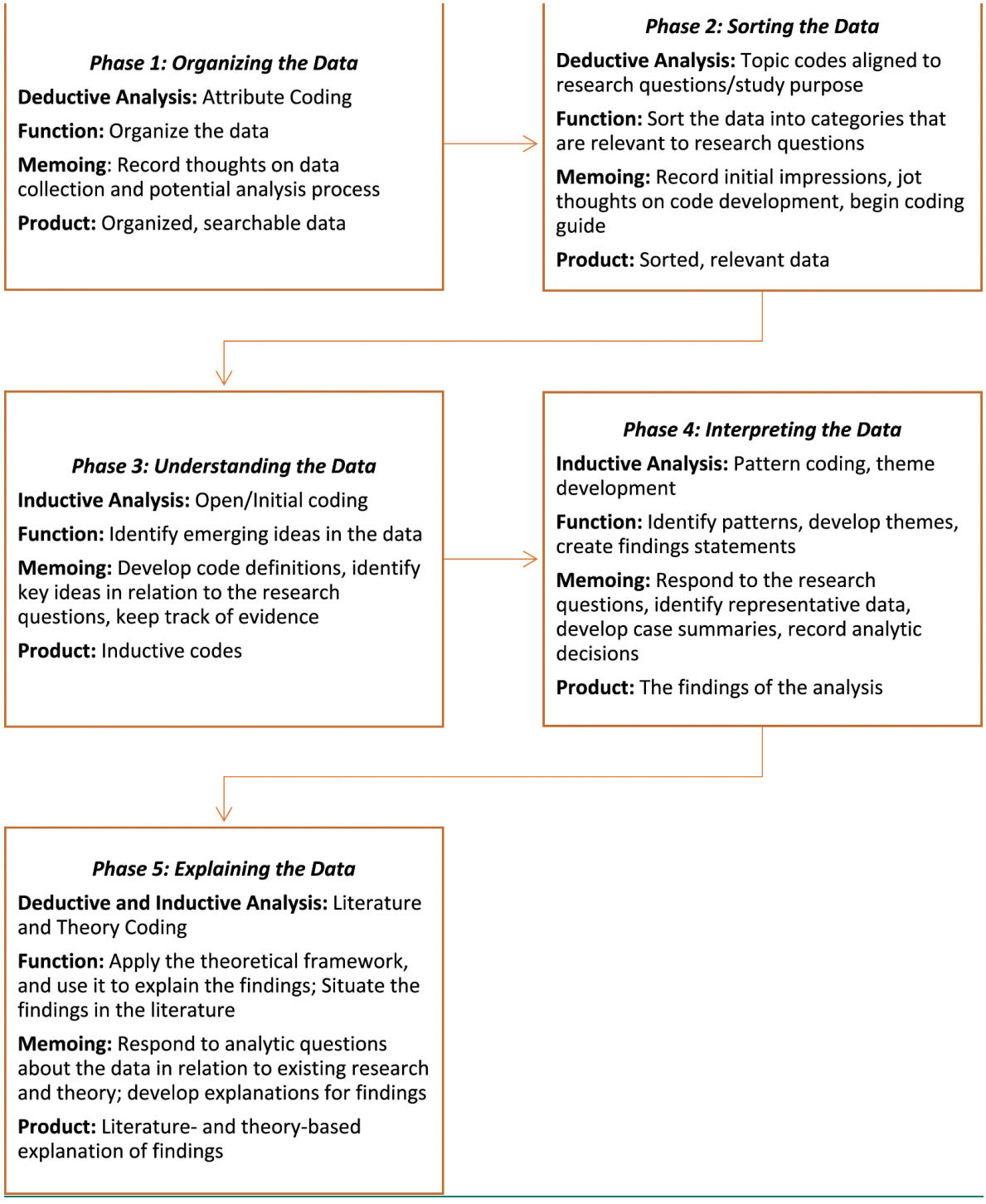
The Zoom interviews were audio-recorded on a secure, locked computer; they were not uploaded to the Cloud. Rev (rev.com) transcription software was used to produce written interview transcripts to aid in accurate analysis; these transcripts were then provided to the interviewee for the opportunity to review and correct. Grammarly (grammarly.com) was also used during the drafting of materials, written analysis, and manuscripts to enhance readability and clarity.

Data Analysis

Data analysis followed Bingham's (2023) five-phase process, which integrates deductive and inductive approaches to qualitative analysis. This model supports a systematic and transparent progression from initial data organization to the development of themes and explanatory findings, while allowing movement between theory-informed and data-driven analysis.

Figure 3.1

Bingham's (2023) Five-Phase Analysis Approach



Each phase was applied in a way that aligned with both the research questions and the conceptual framework.

Phase 1: Data Organization and Initial Coding

Interview transcripts were reviewed in full to establish familiarity with each case. During this phase, data were organized using broad, descriptive codes aligned with the structure of the study. The Five Environments for Growth (academic and cognitive, social, emotional, creative, and physical and sensory) were used as initial organizational categories. These codes functioned as a deductive starting point, allowing data to be sorted across consistent domains while preserving the integrity of each parent's narrative. Deductive coding is used to test an existing theory that has been suggested in the literature as a relevant window into a phenomenon.

Phase 2: Deductive Coding and Within-Environment Analysis

The second predetermined code was to use the comparative contexts under examination in this study. This phase focused on categorizing data to learner experiences within public school and homeschooling contexts. Coding remained closely tied to participants' language, and analytic memos were used to document emerging observations, areas of tension, and variation across cases.

Phase 3: Inductive Coding and Cross-Case Pattern Development

Following the initial deductive organization, inductive coding was used to identify patterns that extended beyond the predefined environmental categories. This phase involved examining similarities and differences across cases to develop cross-case clusters, including patterns related to misalignment, advocacy, parallel learning, and withdrawal. Codes in this phase were generated directly from the data and refined through constant comparison across participants.

Phase 4: Development of Themes

Cross-case clusters were then synthesized into broader themes that captured shared patterns across participants. This phase involved moving from descriptive coding to interpretive analysis, with attention to how patterns related to the research questions. Themes were developed through iterative review of coded data, analytic memos, and supporting excerpts, ensuring that each theme was grounded in multiple cases.

Phase 5: Interpretation and Integration with Conceptual Lens

In the final phase, themes were interpreted in relation to the study's conceptual framework and analytic lens. The Five Environments for Growth continued to provide structural organization, while Positive Niche Construction was used to interpret patterns related to environmental alignment, motivation, and learner development. This phase focused on explaining how patterns of misalignment, advocacy, withdrawal, and realignment unfolded across cases, and how these processes contributed to a broader understanding of educational fit for HG/PG-2e learners.

Across all phases, analytic memoing supported transparency and consistency in the analytic process. Memos were used to track coding decisions, emerging interpretations, and connections between cases, contributing to an audit trail that supports the credibility and dependability of the findings.

Trustworthiness

Multiple strategies were used to support the trustworthiness of this qualitative case study in terms of credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985).

Credibility was supported through member-checking of interview transcripts, allowing participants to verify accuracy and clarify meaning. The analytic process further supported credibility through the combined use of within-case profiles and cross-case analysis across Bingham's (2023) five-phase model. This approach preserved the complexity of individual cases while allowing patterns to be identified across participants.

Transferability was addressed through thick description, including detailed contextual information about learner profiles, disability identification, educational histories, and homeschooling arrangements. These descriptions were presented with attention to confidentiality while providing sufficient context for readers to determine the applicability of findings to other settings.

Dependability was supported through the use of an organized and traceable audit trail documenting data collection procedures, coding decisions, analytic memos, and shifts in interpretation across phases of analysis. This documentation reflects how findings were developed through iterative engagement with the data rather than through a single analytic pass.

Confirmability was addressed through explicit attention to researcher positionality and analytic decision-making. Interpretations were grounded in participant data through the use of direct quotations and cross-case patterning. Rather than attempting to remove researcher influence, this study makes that influence visible through transparent documentation of how interpretations were developed.

To enhance trustworthiness and reduce subjectivity during analysis, emerging patterns, themes, integrated factors, conceptual frameworks, and explanatory models were discussed

extensively with the dissertation Chair throughout the analytic process. Interpretations and conceptualizations were reviewed iteratively as coding and cross-case analysis progressed, allowing for ongoing refinement, clarification, and reconsideration of analytic decisions. This collaborative review process supported greater consistency between participant data, thematic interpretation, and conceptual synthesis, while strengthening the credibility and validity of the final framework and models.

Eligibility validity was strengthened through clearly defined inclusion criteria. Participants demonstrated profoundly gifted status through either Wechsler-based qualifying scores or acceptance into the DYS program, which uses a rigorous external review process to identify profoundly gifted learners. This dual pathway supports construct validity by verifying cognitive profiles several standard deviations above the mean while also reflecting identification processes commonly used by families of HG/PG children (Assouline & Lupkowski-Shoplik, 2012; Patton, 2015; Reis et al., 2014). Requiring confirmation of a clinical disability diagnosis, an Individualized Education Program (IEP), or a Section 504 Plan further ensured that all participants met widely accepted criteria for twice-exceptionality.

Researcher Positionality

The researcher is a parent of HG/PG and HG/PG-2e young adults and an educational consultant who has professionally worked with more than 300 similar learners and their families. This experience contributes valuable contextual knowledge while also shaping the perspectives brought to the research. To promote transparency, the researcher consulted regularly with the dissertation chair to explore alternative viewpoints. These practices ensure that the development

of findings can be clearly followed and understood in relation to the researcher's positional stance and the data informing each decision. to the data.

Ethics Statement

Institutional Review Board (IRB) approval was obtained prior to the start of data collection, and current human subjects research certification was maintained throughout the study. All participants were adults and were not members of a protected population. The study did not involve any form of intervention or experimental condition.

Prior to participation, each participant reviewed and signed an informed consent form outlining the purpose of the study, potential risks, the voluntary nature of participation, and the right to withdraw at any time. Participants were also informed of the steps taken to protect confidentiality.

To protect participant identity, pseudonyms were assigned to all participants and learners. Any identifying information, including references to schools, programs, geographic locations, or other contextual details, was removed or modified. Archival materials included in the study were fully de-identified, with all direct and indirect identifiers redacted.

All digital data was stored on a password-protected device, and all physical documents were secured in a locked file accessible only to the researcher. De-identified datasets were shared with the researcher's dissertation committee for the purposes of review and verification. De-identified data may be used in future research or made available to auditors for the purposes of data verification, coding, and analysis in accordance with institutional guidelines.

Use of Generative Artificial Intelligence in Figure Development

Several conceptual figures included in this dissertation were visually rendered using generative artificial intelligence tools (ChatGPT and DALL·E) to support graphic design and visualization. The conceptual frameworks, textual content, analytic interpretations, theoretical synthesis, and iterative revisions originated with and were solely the work product of the researcher, derived directly from qualitative data analysis and thematic interpretation. Generative AI tools were used solely to assist in translating researcher-developed concepts into visual formats through iterative prompting and refinement. Final figure content, wording, organization, and conceptual accuracy were reviewed and revised by the researcher through multiple iterations.

Chapter Summary

This chapter described the qualitative case study methodology used to examine parents' perspectives on the educational experiences of HG/PG-2e learners across public school and homeschooling environments. The chapter presented the study's research questions, described the researcher's positionality, and outlined the setting, participant eligibility criteria, and sampling strategy used to identify information-rich cases.

Data collection procedures were detailed, including the use of a semi-structured interview protocol aligned with the Five Environments for Growth (academic and cognitive, social, emotional, creative, and physical and sensory). Procedures for data management and confidentiality were also described.

Data analysis followed Bingham's (2023) five-phase hybrid qualitative model, integrating deductive and inductive coding, analytic memoing, and cross-case analysis. This process supported the identification of patterns related to learner experiences, disengagement, advocacy, withdrawal, and realignment across cases. The use of the Five Environments for Growth provided structural organization, while Positive Niche Construction and Self-Determination Theory informed interpretation of patterns related to environmental alignment and motivation.

Strategies to support trustworthiness, including credibility, transferability, dependability, and confirmability, were outlined alongside ethical safeguards and transparency in analytic decision-making.

Together, these methodological components support a detailed and grounded examination of educational fit for HG/PG-2e learners across environments. The findings of this study are presented in Chapter 4.

Chapter 4: Findings

The purpose of this qualitative research study was to examine how parents of highly and profoundly gifted, twice-exceptional (HG/PG-2e) learners described their children's educational experiences within both public school and homeschooling settings, and to understand the parent role in school advocacy, decision-making, and withdrawal. Particular attention was given to how parents interpreted their children's development across academic and cognitive, social, emotional, physical and sensory, and creative domains; how parents engaged in school advocacy and made withdrawal decisions; and how they constructed individualized learning alternatives through homeschooling.

This study employed a qualitative multiple case study design to investigate the lived experiences of families navigating educational misalignment and subsequent shifts in learning context. Data were analyzed using Bingham's (2023) hybrid qualitative analysis model, which moves from deductive organization to inductive pattern development and synthesis.

In the first phase of analysis, the Five Environments for Growth framework was used deductively to organize participant data within academic/cognitive, social, emotional, physical/sensory, and creative domains. Within each domain, data were further organized into public school and homeschool contexts to address Research Question 1.

To address Research Question 2, participant data were deductively organized into the three components of the research question: parent advocacy, educational decision-making, and withdrawal considerations. Within each area, patterns were examined across cases to understand

how families navigated educational systems, evaluated educational options, and ultimately pursued alternative educational pathways.

The findings presented in this chapter reflect patterns identified across the ten cases and are organized according to these analytic structures.

Research Questions

The two research questions are

4. How does the Five Environments for Growth framework predict the learning experiences of HG/PG-2e learners in both public school and homeschool settings?
    (a) What are the public-school experiences of these learners across each domain?
    (b) What are the homeschool experiences of these learners across each domain?
5. What is the role of the parent(s) in advocacy, decision-making, and withdrawal considerations across these educational settings?

Participant Demographics

The study included ten learners between the ages of 9 and 24 who met criteria for HG/PG ability, as verified through performance on the Wechsler Scale of Intelligence or acceptance into the Davidson Young Scholars program, which requires documented evidence of ability at or above three standard deviations from the mean. The sample included eight male learners, one female learner, and one learner who identified as transgender female at the time of the study.

All learners have experienced both traditional public school and homeschooling environments within the United States. Homeschooling experiences varied in structure, including

independent homeschooling, public independent study, charter homeschool programs, and private satellite programs. While many learners began their education in public school and were either enrolled in or had graduated from K-12 as homeschoolers at the time of this study, others transitioned several times between public schools, private schools, and homeschool contexts. One learner in this study began their trajectory as a homeschool student and graduated from a public school's International Baccalaureate program, reflecting the iterative process these families continued in searching for their child's ideal educational alignment.

The timing of identification of advanced ability and learning differences varied considerably across cases, ranging from early childhood through postsecondary education. Each learner had at least one formally identified disability, based on clinical evaluations, school-based assessments, and/or IEP or 504 plans. Reported disability profiles included ADHD, autism spectrum disorder, dysgraphia, dyslexia, anxiety disorders, sensory processing disorder, and prosopagnosia. Several learners had multiple diagnoses.

Participants represented a range of geographic regions and community settings, including urban and suburban environments across multiple states. Learners also reflected varied racial and ethnic backgrounds, including White, Asian, Hispanic/Latino, Middle Eastern or North African, and multiracial identities. Many learners were identified as first- or second-generation Americans, with one or both parents born outside of the United States. Most learners were part of two-parent households, with variation in employment arrangements during the homeschooling

period, including households with one or both parents working inside or outside the home.

Participant Profiles

The following participant profiles provide contextualized accounts of each HG/PG-2e learner's educational experience prior to and following the transition from public school to homeschooling, and in some cases, back and forth. This section reflects the within-case phase of analysis, preserving each learner's educational pathway before moving into cross-case comparison. Several learners experienced complex or non-linear educational pathways, including early homeschooling, re-entry into school settings, or movement between multiple educational contexts. Each profile reflects the parent's perspective on the learner's developmental trajectory across academic/cognitive, social, emotional, physical/sensory, and creative domains, along with the conditions associated with disengagement, withdrawal, and subsequent shifts in learning context. Direct quotations are included where they clarify or illustrate the perspectives described. These profiles provide the context necessary to understand the cross-case patterns that follow.

Case 1: Nicholas

Nicholas is an HG/PG learner with a complex profile that includes ADHD, autism, general anxiety disorder, and dysgraphia. His educational pathway included early public school placement, a transition to homeschooling, a period in a small private microschool, and a return to homeschooling. At the time of the interview, Nicholas was 16 and homeschooling while dual-enrolled in community college courses, working as a tutor in calculus and chemistry.

Nicholas's early education began in an academically-focused bilingual preschool where he developed advanced reading and math skills alongside early interests in science. His mother

then described kindergarten as a positive experience with a teacher who understood his needs, though he showed difficulty with transitioning from one directed activity to another.

In first and second grade, however, his experience significantly deteriorated with the change in teacher, separation from peers, and increasing mismatch between his learning profile and classroom expectations. Nicholas demonstrated advanced conceptual understanding alongside significant difficulty with written expression. He was often "completely bored out of his mind" while struggling to produce written work. When he wrote about topics of interest, such as nuclear reactors, teacher feedback focused almost exclusively on mechanics without even commenting on the sophistication of his ideas. As his mother explained, "he's writing about nuclear reactors and he's right," and yet that was not seemingly recognized. Mathematics reflected a similar pattern. Nicholas's strong conceptual understanding was frequently obscured by difficulty with timed tasks, contributing to growing frustration and declining confidence.

Classroom notes sent home by Nicholas's teacher reflected the expectations he encountered throughout the school day. Concerns centered on handwriting practice, mindfulness activities, task completion, and following directions. He frequently required prompting and redirection to meet classroom expectations. Writing assignments and independent work became recurring sources of concern. Constant movement between activities interrupted his thinking and limited opportunities for sustained focus. His need for movement, including pacing while thinking, fit poorly within the structure of the school day.

Each school year reshuffled student placements in classes, and Nicholas became separated from the peers with whom he had formed friendships in kindergarten. New friendships

did not emerge in the new classroom. His mother recalled that he often spent lunch pacing alone or sitting near administrative offices rather than with classmates.

As Nicholas' school day became more misaligned, he became emotionally dysregulated. Meltdowns followed school nearly every day, homework frequently ended in tears, and sleep was disrupted by recurring nightmares. Reflecting on that period, his mother noted that "their self-confidence goes down and losing it is so easy, but gaining it back is just so hard."

In response to these experiences, Nicholas's family pursued a private psychological evaluation. His mother recalled that "the first thing she told us after she evaluated him was, 'You have to homeschool,'" a recommendation the family did not initially anticipate. The school's response to the evaluation was limited. As she recalled, the response seemed to be that "in our district, everybody is gifted," and the resulting Individualized Educational Plan (IEP) that the school put in place addressed areas of difficulty without incorporating his advanced abilities.

Alongside school, the family supported his learning outside the classroom. At age seven, while still enrolled in elementary school, Nicholas completed an online university-level astronomy course that included an oral exam in his second language. His mother describes scribing for him, though he was proficient in the course material.

By the end of second grade, Nicholas' mother described reaching a point where school "just wasn't sustainable anymore." Homeschooling began with a period of de-schooling, during which daily meltdowns and sleep disruptions largely resolved. His education shifted to an interest-driven and strength-based approach, which his mother described as "allowing, trusting

your child that what he's learning actually is worth it." She provided examples of deep dives into astronomy, animals, and ancient civilizations.

Within the homeschool context, Nicholas engaged in advanced academic work in a sustained way. At age eight, he audited an in-person astronomy course at a highly selective university. The professor, an established expert in the field, later indicated to the family that Nicholas would have earned an A in the course had he received an official transcript. After that, he began taking community college courses, which he has continued into adolescence.

Around middle school age, Nicholas experienced a period of social and emotional difficulty, which his mother described as associated with puberty. In response, he attended a small, neurodiversity-affirming private school for ninth and tenth grade. There, he experienced increased social connection and a sense of belonging with neurodivergent peers. He later chose to return to homeschooling, seeking more structured academic experiences through college-level coursework, which he preferred because of its higher-level content and the clear expectations that he felt professors provided. At the time of this study, he was also working at the community college as a student tutor.

Case 2: Maya

Maya is an 18-year-old HG/PG learner with a profile that includes extremely high visual-spatial reasoning alongside dyslexia, auditory processing differences, and vision-related needs. Her educational pathway included early private school, a gifted private program, a public school gifted classroom following a move between states, and a transition to homeschooling for the

remainder of her education. At the time of the interview, she had been accepted to a competitive university for engineering.

From an early age, Maya demonstrated a pattern of thinking characterized by systems-level reasoning and rapid conceptual understanding. As her mother recalled, at age four, she would reflect on the structure of matter, explaining, “I think the things that we see are made of smaller things that I think are made of smaller things.” Her interests extended into engineering and design, taking apart tools, and independently assembling a 3D printer by following a video. New concepts were often mastered quickly, after which her attention shifted elsewhere. For example, “she learned to program very clearly, and then suddenly it was boring.”

At the same time, Maya had persistent difficulty with reading and written expression. Despite consistent exposure to books and daily reading support, progress was limited, and at one point she exclaimed, “I’m never going to learn to read… I’ve tried, and it didn’t happen.” Written work reflected similar challenges. While Maya enjoyed storytelling, her pages included “no capitals or random capitals and no commas and no points.”

In third grade, her family moved, and she entered a public school gifted program where expectations and instruction did not align with how she learned. Lessons frequently revisited material she had already mastered, prompting her to question the purpose of repetition. When the class transitioned from two-digit to three-digit addition, she asked, “We have already seen this. Why are we seeing this again?” Reading instruction was far below her conceptual understanding and interests, with materials assigned based on measured reading level rather than levels of understanding and content knowledge. She was only permitted to take books out of the school library that corresponded with her Lexile score, which was affected by her dyslexia. As her

mother described, the books available to her were “boring,” while the books she wanted were not allowed.

Although the family pursued multiple evaluations documenting dyslexia, auditory processing differences, and visual needs, Maya was denied testing for learning support services; her parents were told that an IEP or 504 would require removal from the gifted classroom and evidence of failure in general education.

Maya’s relationships with peers also shifted during this period. Maya’s mother described her as a “social butterfly,” often leading games and engaging others through her creativity at her former school. In the new setting, her mother described a widening gap between Maya and her peers, even within the gifted classroom, with differences in interests and pace of thinking limiting sustained connection. Her mother described classroom behavior rewards tied to increased playground time, and since Maya did not feel close to her classmates, this did little to incentivize her. As misalignment continued, she felt increasingly disregulated.

Daily routines became increasingly strained, as well, with homework often ending in “tears all over, crying almost every afternoon.” The school itself became a source of resistance, and on one occasion, when her family had to run back to school to retrieve her coat, she refused to enter the building, stating, “I don’t want to go to that horrible place.” Noise and unstructured spaces added to these difficulties, with her mother noting that she “could not tolerate being in the gym” where students congregated before class began each morning, describing needing to precisely time Maya’s school drop-off to avoid those environments.

Towards the end of third grade, while on family travel abroad, Maya's parents observed how Maya engaged with museums and hands-on experiences and spent sustained time exploring topics of interest. Upon returning, the family chose to transition to homeschooling, withdrawing from the school before the end of the term. Her father reduced his working hours to support the structure and daily instruction.

Learning at home took on a different shape. Foundational work in reading and writing became a central focus, approached with sustained one-on-one support rather than time-limited assignments. Her mother described "focus on getting her to just read, read and write, read and write, and help her with the writing instead of saying [it was] just terrible." At the same time, Maya worked deeply within areas of interest, completing extended research on topics such as diamonds, dolphins, and space exploration. She pursued complex questions, including the possibility of travel through a wormhole, and produced written work using scientific databases and formal citation practices. Progress unfolded unevenly across subjects, with pacing fitting her individualized needs. Memorization of multiplication facts did not occur until age 14, with her mother noting that "Algebra one didn't take nine months, it took 12, and then Algebra two took a year and three months, and precal was done in four months."

Sustained engagement became more visible, with Maya spending extended periods working within topics she selected. Her mother described that "she would stay with it for hours" when the material aligned with her interests. Opportunities for social interaction developed through shared activities rather than classroom placement. She joined a Dungeons and Dragons group with older peers, where her mother described her as "the tiny, tiny little one in the group," and later participated in a robotics team during high school. Her academic work continued to

expand, including advanced coursework and preparation for engineering study, along with access to AP testing through district arrangements.

At the time of this study, Maya had been accepted at a selective university to study engineering.

Case 3: Alex

Alex is a 12-year-old HG/PG learner with multiple diagnosed learning differences, including ADHD, stealth dyslexia, dysgraphia, dyscalculia, pragmatic speech challenges, and a speech difference described as a stutter. He attended public school through second grade, with his second-grade year disrupted by COVID, and transitioned to homeschooling in third grade, where he has remained. At the time of the interview, he was participating in advanced coursework through a highly selective gifted online program.

Early school experiences revealed a disconnect between Alex's abilities and his performance in the classroom. In kindergarten, his mother described him as "eating crayons every day and coming home crying," while concerns raised to the teacher were dismissed with the response that "he's not even in the top 10 of kids that I'm concerned about." His interests and ways of engaging with the world were evident early, including a strong focus on birds and an ability to make connections across ideas, though these were not reflected in classroom expectations or instruction.

Instruction in the early grades did not align with how Alex learned. In second grade, math instruction emphasized speed and timed drills, which "just did not sync up with the way that he learns math" and "caused a lot of anxiety and stress." Assignments often prioritized writing

mechanics such as letter size and punctuation over content, even when he demonstrated a strong interest in the topic. During a report on birds, a subject he was highly engaged in, the focus remained "so much on the structure and not the content, the output and not the learning part, which is what he really, really enjoys." His engagement with ideas was present, though the format of the assigned work did not reflect it.

Social interactions reflected differences in interests and engagement. During recess, while other students played group games, "he wanted to look at birds during recess and talk about their migration patterns." Attempts to address this difference focused on aligning his behavior with peer norms. During an IEP meeting, a speech pathologist identified his enthusiastic greeting when his mother came to volunteer as "unexpected behavior," noting that "most of the other kids don't do that when their moms come." Interactions with peers and adults were shaped by expectations of typical participation rather than his patterns of interest.

Emotional responses intensified over time within the school setting. His mother described him as "crying every day after school," with increasing frustration directed toward himself. During one incident, he was "hitting his head over and over, saying that he hates his brain and wishes that he had a different brain." This led to placement in a quiet room after he expressed thoughts about wanting to die, triggering the school's self-harm protocol.

Physical expectations within the school environment also limited his ability to engage. Movement was restricted, including being required to remain within designated boundaries marked on the floor. As his mother described, the school "put a tape on the ground and told him he wasn't allowed to go outside of the tape," limiting the movement that supported his thinking and engagement.

The transition to homeschooling began during the COVID period, which allowed for extended time outside and a shift in daily structure. His mother described this period as "an opportunity just to spend a ton of time outside and go hiking," alongside sustained engagement with his interest in birds, including "every day drawing birds and going birdwatching." During this time, he also received a comprehensive neuropsychological evaluation that identified his profile of profound giftedness alongside learning differences.

Learning at home was structured differently from the classroom. Instruction occurred in shorter, focused periods without the pacing constraints of a full school day. His mother described that "those two hours we did learning, and then the rest of the time we could do whatever else we wanted." Academic instruction shifted to approaches that matched how he learned. In mathematics, the use of a multisensory program allowed him to engage with concepts in a different way. As she explained, "while drilling him on math facts was torture… by taking a different approach, we were able to… a much more pleasant and happy experience."

Opportunities to engage with interests expanded. Alex spent extended time exploring birds, history, and Egyptian mythology, including visits to museums, podcasts, and independent learning. His mother described that homeschooling allowed him to "deep dive into things that were interesting to him," with fewer constraints on how learning needed to be demonstrated.

Alex's social connections were also developed through shared interests. He founded a Young Bird Lovers Club where "kids would meet on Zoom, and they would talk about birds, and they'd start doing presentations to each other about the birds that they loved." His mother described this as the first time that "he actually had people," with peers who shared his interests and engaged with him in ongoing conversation.

His mother described the difference between public school and homeschool as “just night and day” between “how he was while he was in school versus not.” While some anxiety remained, particularly related to health concerns during COVID, the social anxiety that had been present in school was no longer observed.

Physical and sensory flexibility was a consistent feature of Alex’s homeschooling. He was able to move while learning, including “walk[ing] around while learning things and eating and doing,” without the constraints present in the classroom. His mother described that “the ability to move and learn at the same time was huge for him,” noting that this type of movement would not have been possible in a traditional classroom setting.

At the time of the interview, Alex participated in advanced coursework through an online gifted program, including classes in philosophy, history, and literature. His mother described that “he loves the classes, he loves the class discussions, he loves the readings,” while writing remained an area of challenge, with “every sentence has a hundred percent effort.” He continued to participate in homeschool pods and nature-based programs with other learners.

Case 4: Aarya

Aarya is a 13-year-old HG/PG learner with a profile that includes a diagnosis of autism spectrum disorder alongside advanced cognitive abilities. She currently identifies as a transgender female and uses she/they pronouns. Her educational pathway included early caregiving with enriched instruction, public school across multiple states, a transition to homeschooling in middle school, and a later shift to a hybrid program. At the time of the interview, she was enrolled in ninth-grade coursework within a hybrid homeschool setting.

Aarya's early development was marked by rapid learning across domains. Her nanny recognized this when Aarya was just a toddler, with her mother describing how "she kept teaching [Aarya] and [Aarya] kept learning… she went up to like third grade level when [she] was in a preschool age and [the caregiver] was like, 'I'm tapped out. I can't teach [her] anymore.'" Daily routines included a combination of academic instruction and physical activity, with her mother recalling that "[she] would do exercises… wheelbarrows and different things at home during the course of the day, spaced out with academics and physical stuff."

Entry into formal schooling introduced a different set of expectations. Aarya's parents chose early enrollment for kindergarten, given her advanced abilities and autumn birthday. That teacher mentioned to the parents some observed differences in attention and processing, including that she was "taking in everything" in the classroom environment and could become distracted by visual stimuli, though the school did not offer any testing. After the family moved to a new state, Aarya underwent a comprehensive evaluation as part of the school's Child Find process (identifying students who are covered under the Individuals with Disabilities Education Act), which identified autism spectrum disorder alongside advanced cognitive ability. The school, however, did not respond to her IQ scores, focusing only on her perceived disabilities.

As Aarya progressed through elementary school, her academic needs remained unaddressed. In third grade, her mother requested math placement testing; the school-proivded assessment indicated performance at the end of fourth-grade level in math, with later testing in the high 80th percentile for fifth-grade content. Yet despite this, instructional placement did not change. Her mother described that "they didn't do anything about it," even though "[she] was

interested in math, wanted to continue doing math." Outside of school, the family supplemented her learning with the Art of Problem Solving curriculum, beginning with pre-Calculus.

Social experiences reflected a similar pattern of misalignment. Her mother described that "[Aarya] didn't fit with the regular rough and tough boys" and instead sought connection with girls, though as peer interests changed, she experienced further exclusion. As her mother relayed, "Now the girls want to play princess games… 'I'm not a fit, and they won't let me in.'" At the same time, she formed a close friendship with another student in gifted programming, who later described their friendship as "somebody who was as weird as I was," a relationship that continued beyond elementary school.

Classroom experiences became more strained in later elementary years. During one incident, classmates were snickering about an inappropriate comment being whispered through class, which Aarya loudly and boisterously repeated, leading to her disciplinary action. In another situation, she experienced a science activity as unfair, resulting in a visible escalation. Her mother described that "[she] found it extremely unfair, went into meltdown mode and they had to empty the classroom," during which she requested to speak to the principal and be removed from the class. Aarya's mother added her thought that teachers need to be better trained to de-escalate children's emotions, particularly when they have autistic profiles.

By sixth grade, attending school had become increasingly inconsistent. Her mother described the daily uncertainty, stating that "I would wake up in the morning not knowing whether she would go to school that day or not." The structure of middle school, her mother described, felt to Aarya as "all I'm doing is sitting at a desk all day and then moving from class

to class." Discussions about homeschooling occurred over time, with the decision emerging gradually through repeated conversations.

The decision to homeschool began in seventh grade. Since both of Aayra's parents worked full-time, her schoolwork was generally online. Academic work consisted primarily of online courses aligned to her cognitive level, including classes through online gifted course providers and an attempt at geometry through an advanced online program. Some courses were completed, while others were described as not a good fit, with one noted as "too much like public school." Opportunities for independent exploration included work with Desmos math graphing, music composition, and writing, though these activities were described as intermittent.

Creative expression remained a consistent part of Aarya's experience. While she took part in band and theater in middle school, she also took several years of violin lessons outside of school and performed in a youth orchestra. She engaged creatively with music, arranging a piece she had heard and performing it on the violin rather than selecting a standard recital piece. She also showed interest in cooking, building, and repairing items around the home, engaging in hands-on activities throughout the day.

Social access during homeschooling was more limited. Her mother described the experience as "a lot worse" due to Aarya's own extroverted nature contrasted with the parents' introversion, and the difficulty of connecting in the local homeschool community with both parents working full-time.

After homeschooling last year as a seventh grader, in a continued effort to realign her educational needs, Maya is trying a hybrid program two days per week this school year,

participating in ninth-grade classes while completing additional work at home. This structure allows for variation in pacing and time allocation across subjects. Her mother described her motivation and grades as still mixed, the latter more conditioned by turning work in on time than content knowledge. Her mother shared an example of an art project that received a grade of "C" simply because it was not completed on time. At the time of this study, they were contemplating additional educational options for the next school year.

Case 5: Ethan

Ethan is a 9-year-old HG/PG learner with a profile that includes significant face blindness impacting social recognition, alongside advanced cognitive abilities. His educational pathway included public school in kindergarten, a transition to a private school for first grade, and a move to homeschooling through a public charter program by the end of that year. At the time of the interview, he was homeschooled with a combination of structured curriculum, online coursework, and individualized instruction.

From an early age, Ethan demonstrated advanced abilities across domains. He taught himself to read by age two and began designing webpages by age five, later creating functional programs and applications independently. His mother described him as "a computer genius," noting that he could read programming books and understand how code would function without needing to test it. He demonstrated rapid acquisition of complex material and strong intrinsic motivation for technology-based learning. At the same time, areas of relative difficulty were present, including challenges with basic math automaticity, handwriting, and speech production.

Social experiences were shaped by his difficulty recognizing faces. In kindergarten, he was unable to identify classmates even when prompted with photographs and continued to ask peers their names despite repeated exposure. He could identify his teacher based on positional cues, describing her as the person who “stands at the front of the room,” while peers were more difficult to distinguish. One classmate became recognizable through consistent interaction, though broader peer recognition remained limited. His parent described that even with supports such as name tags, he continued to experience difficulty forming stable connections. At one point, he seemed to form a connection with a peer in a table grouping, but when the teacher reshuffled seats, that connection seemed to disappear.

His kindergarten classroom did not provide consistent academic alignment. Although differentiation was discussed, advanced work was limited and often replaced with independent use of an iPad. His parents had advocated for grade acceleration, which was initially suggested but later denied, apparently as a policy reconsideration. Instructional pacing remained unchanged despite evidence of readiness. During this time, interactions with adults reflected a pattern of underestimation of his abilities, including an instance in which he described computer upgrades to a school administrator who dismissed his explanation as imagination rather than recognizing his technical knowledge.

When the school denied acceleration in the second semester, Ethan transitioned to a private school, where he was accelerated into first grade. This school introduced additional challenges. Uniform requirements resulted in peers appearing visually similar, increasing the difficulty associated with face blindness. Classmates began to notice Ethan’s inability to identify them and responded by asking him to guess their names, laughing when he was unable to do so.

When concerns were raised, responses from the school focused on Ethan's behavioral expectations rather than the exclusion itself. At the same time, Ethan was physically uncomfortable from his sensory sensitivity to the dress code and to having to sit in a chair for extended periods, contributing to the misalignment of the school environment.

These experiences led to a transition to homeschooling through a public charter at the end of that year. Public charter homeschool programs, such as the one Ethan enrolled in, operate as tuition-free public schools that provide families with curricular resources, funding, and credentialed teacher oversight while allowing parents significant flexibility to design and direct day-to-day instruction. With this structure, academic instruction was reorganized to align with Ethan's level, and he was advanced two grade levels following assessment. His daily homeschool schedule begins with mathematics in the morning, followed by focused work in subjects such as grammar, Latin, science, and history. Rather than distributing work across multiple days, he completes extended blocks within a single subject, allowing for sustained concentration.

Engagement with learning is most evident in areas aligned with Ethan's interests. He participates in coding instruction through individualized classes, along with a coding mentor, and completes advanced projects independently. He also takes an advanced online course where he creates detailed video presentations incorporating research, voiceover, and editing, completing all assigned work and additional exploration without prompting. His mother described that when asked, "Who likes science?" he responded with visible enthusiasm, raising both hands and feet. Outside of structured instruction, he spends extended time on self-directed projects at home, working on code, researching computer systems, and developing technical projects.

Social interaction within homeschooling requires intentional planning. Ethan participates in a homeschool co-op one day a week, though he continues to experience difficulty recognizing peers and forming connections. He maintains one consistent friendship with a peer who shares his interest in coding, communicating through virtual interactions. In group settings, he often chooses to remain near familiar adults or engage in independent activities rather than participating in peer interactions. In Scouts, he connects more with adults with whom he perceives value to him through shared interests and knowledge levels than with peers.

At the time of the interview, Ethan's learning included a combination of structured academic work and extensive engagement in technology-based projects. His schedule allows for the completion of required subjects alongside sustained work in areas of interest, including programming and computer systems.

Case 6: Marcus

Marcus is a 10-year-old HG/PG learner with a profile that includes dysgraphia, dyscalculia, central auditory processing challenges, and ADHD, alongside a highly sensitive response to perceived demands. His educational pathway included online kindergarten during COVID-19, followed by public school through second grade, with reduced attendance to "specials" classes, and a transition to full-time homeschooling by third grade following the emergence of significant school refusal. At the time of the interview, his learning was supported within a home-based environment with flexible structure and individualized instruction.

From an early age, Marcus demonstrated strong visual-spatial reasoning alongside difficulty with language-based tasks. His mother, certified as a school teacher herself, connected

this directly to how he processes information, explaining, “A B, a D, a P, and a Q just depend on how you shift it. It could all be the same thing.” This pattern affected his access to academic work across subjects. When mathematical problems were presented in written form, she described that “he’s like, ‘I have no idea,’” while the same concepts presented in real-world or visual contexts were accessible to him.

Marcus initially formed friendships in early elementary school, though these relationships were not stable across time. Changes in classroom groupings separated him from familiar peers, and he was not able to reestablish similar connections. As peer dynamics shifted, interactions became more difficult, and over time, his mother described that “he didn’t connect with anybody in his class.” Social expectations became increasingly difficult to navigate alongside academic demands.

School experiences did not reflect Marcus’ level of ability. Marcus’s district determined gifted identification through a committee review of multiple school-based measures rather than cognitive scores alone. Despite documented profoundly gifted ability, his parents received a letter denying him access to gifted programming, as eligibility significantly depended on how ability appeared within classroom-based criteria. His instruction remained aligned to grade-level expectations, and his strengths were not reflected in classroom placement or materials.

Classroom participation became progressively more difficult as demands increased. Writing tasks were particularly challenging and often led to emotional escalation. His mother described moments in which he would refuse to complete work or throw his iPad when handwriting was required. He frequently removed himself from the classroom to cope, including hiding under cubbies or leaving the room. She described that he cried daily and would attempt to

stop himself by “holding his eyes open.” After school, emotional responses continued, with frequent meltdowns and exhaustion following the school day. At one point, he expressed a desire to just be “a normal kid.”

In response to these challenges, his school reduced his attendance during second grade to “specials” classes, including art, physical education, and library. This arrangement did not address his broader needs. His tolerance for attending even these classes decreased, and by third grade, he no longer wanted to attend. When his mother requested that he be placed with a preferred peer, the response from the school was delayed and ultimately denied, with administrators stating that they “can’t do that.” His refusal to attend increased during this period, until eventually school participation stopped.

At that point, Marcus transitioned to full-time homeschooling, allowing for reduced demands and greater flexibility. Academic work was structured in shorter segments, typically completed within approximately one hour per day. He demonstrated a clear preference for proximity to his mother during learning, often choosing to sit next to her on the couch rather than engage in more formal instructional arrangements. He also engaged more readily in one-to-one interactions with trusted adults.

Engagement in required tasks varied depending on how demands were presented. He was able to complete testing or short assignments when expectations were clearly explained, and the purpose was understood. At other times, demands resulted in refusal or withdrawal. His mother described that providing choice and control over tasks was necessary, including allowing him to select the order of his work using index cards. When tasks were structured in this way, he was more likely to participate without escalation.

Within the homeschool environment, building became a central mode of engagement across multiple forms of media. His mother described that “he spends hours in Minecraft,” explaining that building is “how his brain thinks.” This extended into physical construction with Lego, cardboard, and other materials, as well as drawing and designing structures. She described his ability to mentally track spatial relationships, noting that “you can just rotate the perspective… and he can keep track of where he is going.” These activities were sustained and self-directed, often continuing for extended periods without interruption.

Over time, his preference for the home environment became more pronounced. His mother described a sense of psychological safety associated with being at home, and he showed increasing reluctance to leave the house. Social interaction occurred in structured settings, including a weekly pragmatic language therapy group, though he often observed rather than actively participating. He maintained limited peer connections, including an online friendship connected to shared interests.

At the time of the interview, Marcus’s learning included structured academic work alongside ongoing engagement in building, design, and self-directed activities within the home environment, with continued participation in selected one-to-one instructional support.

Case 7: Elijah

Elijah is a 17-year-old HG/PG learner with a profile that includes autism and ADHD. His educational pathway included public elementary school, public middle school for sixth grade and the beginning of seventh grade, a small private gifted school through eighth grade, a private high school for ninth grade, a one-on-one school setting for tenth grade, and a transition to

homeschooling in eleventh grade. At the time of the interview, he homeschooled through a private homeschool umbrella specifically for HG/PG homeschool learners, providing educational and relational support for Elijah and his family through a combination of in-person, online, and individualized instruction.

Early development reflected both Elijah's advanced ability and developmental differences. At age two, he demonstrated early reading skills, recognizing words such as "ice cream" on restaurant menus, while also experiencing delays in walking and talking that led to an early autism diagnosis. Daily routines combined academic learning with physical movement, including structured activities interspersed with exercises throughout the day.

Public elementary school introduced a setting where his academic needs were consistently not met. He entered school already reading and understanding the material being taught, with little access to advanced work. His parents described him as "learning very little" during this time. Participation in the classroom required ongoing accommodations, including alternative seating and sensory supports, which were not consistently implemented. He often completed only the work that aligned with his interests, leaving other assignments unfinished. Nonetheless, Elijah's mother complimented individual teachers who offered him differentiated opportunities, often discovering that the entire class could also benefit.

Social and sensory challenges were present from an early age. Elijah articulated difficulty forming friendships, at one point asking, "What's the point of having friends? They just knock over your tower," and later acknowledging that "having friends is fun and it's really hard for me." Physical interactions could be overwhelming, and during one incident, he bit a teacher who

attempted to touch him during a moment of distress. Classroom expectations around behavior and participation required ongoing adjustment.

Throughout elementary school, Elijah's mother maintained a high level of involvement in an effort to support both his academic and social experience. She volunteered at the school daily, serving in roles such as PTA member and room parent, and maintained ongoing communication with teachers. She also took on more direct forms of support, including arranging training for a classroom aide who initially had "zero training and zero understanding," and bringing in a family psychologist to observe and provide guidance to staff. In an effort to support social connection, she organized play opportunities and remained present during unstructured times, including on the playground. She also created a lunch-time maker space by transforming a highly structured "noon art" activity into an open-ended environment where students could "make whatever you want," intentionally designing a space where her child and kids like him would have a place to go. Additional supports included hiring external professionals to work on play skills and, at times, accompany him at school to facilitate interaction. These efforts were described as essential to his ability to remain in the school setting during these years.

Elijah's transition to middle school marked a shift in both academic and environmental demands. Sixth grade occurred largely online during COVID, followed by a brief return to a large public middle school setting in seventh grade. Navigating crowded hallways and transitions between classes became a source of stress. Academic work began to require sustained effort, particularly in mathematics, where he experienced meltdowns when encountering unfamiliar material. After several weeks in this environment, he stated that he could not continue.

Elijah then enrolled in a small private gifted school, where class sizes were small, and instruction was more flexible. Projects were described as more engaging, with opportunities for movement and individualized pacing. Teachers allowed students to demonstrate mastery without completing every assignment, and academic work was more aligned with their level. Despite these adjustments, social challenges continued, and Elijah required external support in mathematics when instructional approaches did not match how he learned.

Ninth grade at a private high school initially appeared more supportive. He formed friendships and earned high grades across subjects. As the year progressed, the cumulative demands of multiple classes, assignments, and sustained classroom expectations increased. His parent described the mental health impact of maintaining this level of performance, noting that "you don't understand the mental health costs of getting these grades." During one assignment in English, he requested to write about an aspect of the text that interested him, focusing on how subway settings shaped the narrative. When his teacher denied this request, he disengaged from the assignment. Similar patterns occurred across subjects, with unclear expectations and limited flexibility in how work could be completed.

By midyear, Elijah experienced significant emotional strain. His mother described this period as "full autistic burnout," and he ultimately refused to return to school, stating, "I'm never going there again." A one-on-one school setting was implemented for the remainder of ninth grade and into tenth grade, allowing for individualized pacing and extended time for assignments. While this structure provided flexibility, the curriculum remained fixed and aligned with traditional coursework, with limited opportunity for deviation or integration of his interests. Daily instruction, even in reduced hours, was described as exhausting.

After exploring new school choices once again, Elijah and his family decided to try homeschooling in eleventh grade. Elijah is enrolled in a private school umbrella specifically designed to provide support for HG/PG and 2e learners. His guidance counselor, who is also his humanities instructor, helps his family construct learning around his particular goals and interests. At the time of this study, Elijah's schedule included humanities twice weekly, in-person mathematics three times weekly, and online physics twice weekly, along with executive function coaching and therapy. Instruction was adjusted to align with his interests, including his goal of becoming an airplane engineer, and Fridays were reserved for independent projects and personal pursuits.

By shifting Elijah's learning structure, he spent extended periods working on self-directed projects, including cooking complex recipes, building hydroponic systems, constructing remote control planes, and working on extended experimentation with 3D printing. These activities involved sustained effort, including repeated troubleshooting and iteration.

Social interactions became more limited during this period, yet Elijah seemed comfortable in his sense of social belonging. He maintained one close friendship while choosing not to participate in broader group activities. Opportunities for homeschool social groups were available, though he did not engage with them, preferring a smaller and more predictable set of relationships.

At the time of the interview, Elijah's learning included a combination of structured academic instruction and independent projects, with a schedule that includes both coursework and time for self-directed work.

Case 8: Julian

Julian is a 14-year-old HG/PG learner with a profile that includes ADHD, anxiety, and depression. His educational pathway included a project-based charter school through fifth grade, followed by a traditional public middle school for sixth and seventh grade, and a transition to homeschooling after the beginning of eighth grade. At the time of the interview, he was independently homeschooling with a combination of virtual coursework, advanced classes, and self-directed study.

From an early age, Julian was described as patient, generous, and oriented toward helping others. His mother recalled that "if I gave him two cookies… I would turn around and his brother would have a cookie on his plate already," and noted that "one of his favorite things about school was helping teach his classmates." He demonstrated strong verbal reasoning and an ability to explain complex ideas in ways others could understand. His interests centered on history and strategy, often engaging with complex content by playing strategy-based games while simultaneously listening to historical analysis at accelerated speeds.

Early school experiences provided some alignment, particularly within a project-based charter school that included a higher number of neurodiverse learners. His mother described this setting as "way better than his middle school experience," with opportunities for extended projects and engagement. During this time, he formed friendships, particularly with peers who shared similar profiles, and developed relationships with teachers and staff.

Following the transition to middle school, his daily experience shifted. Although placed in advanced math, the remainder of his coursework did not reflect his level of understanding. He completed work quickly and spent significant portions of the school day disengaged. His mother described that "he spent many hours of his school day… either sleeping

or watching YouTube videos during class time," with teachers unlocking his Chromebook so he could access other activities once he finished assigned work. Julian repeatedly stated that he was bored and "knew all this stuff already."

During this period, his parents pursued outside evaluation, which identified his profound giftedness. His mother began advocating for subject acceleration, particularly in history, which was his strongest area of interest. She submitted videos demonstrating his advanced knowledge, noting that these "sobering" examples led administrators to recognize that "this isn't a typical kid." Despite this, the school declined to provide acceleration beyond mathematics. When discussing history placement, administrators emphasized standardized measures and equity considerations, stating, "we have to be equitable" and referencing broader data across students rather than Julian's individual performance. The resulting accommodation was limited to completing one document-based question per unit alongside grade-level curriculum.

Julian's social experience also shifted during middle school. His mother described him as being "on a different plane" from his peers. While he continued to value helping others and interacting with adults, peer relationships became less consistent following COVID and changes in school structure. He experienced exclusion in group settings, including being picked last for activities, while maintaining stronger connections with individual teachers and counselors during brief interactions throughout the day.

Emotional challenges increased during this time, beginning with a concussion in fifth-grade wrestling practice, followed by panic attacks and ongoing anxiety. By sixth grade, he experienced depression alongside disengagement from school. Although medication support in seventh grade improved stability, and he was described as "happy getting ready to go to school

and coming home from school," he continued to express a desire to leave due to a lack of challenge and engagement.

Julian began eighth grade with the expectation that previously discussed adjustments would be implemented. After two weeks, these changes had not occurred, and the planned intervention in history had not been initiated. At that point, he asked to leave school, and his mother agreed. His transition to homeschooling followed both this immediate lack of implementation and a longer pattern of advocacy efforts that did not result in meaningful changes.

His current learning environment includes a structured daily schedule with built-in breaks and visual supports. He completes coursework in Spanish through a virtual program, participates in an asynchronous biochemistry class, studies honors geometry, and independently works through AP U.S. History with support from a writing instructor who has subject matter expertise in history. He demonstrates sustained engagement, particularly in biochemistry, where he extends learning through additional videos and research, often continuing beyond assigned material and discussing what he has learned with others. Social interaction occurs through interest-based activities, including rock climbing, volunteering with younger students in mathematics, and participation in Dungeons and Dragons. He has expressed a clear preference for homeschooling and values being at home with a parent present. At the same time, extended online engagement is described as tiring, and family considerations have led to ongoing discussion of traditional high school options.

Case 9: Caleb

Caleb is a college student in his early twenties attending a highly selective university. He was identified as HG/PG in eleventh grade through formal testing. His diagnoses include dyslexia, dysgraphia, ADHD, and auditory processing challenges, all identified after high school graduation. His educational pathway included public school from kindergarten through fifth grade, a specialized program for middle school, homeschooling through a public independent study program for grades nine through eleven, and completion of high school through a private homeschool umbrella program that included a fifth year or "second eleventh grade."

From an early age, Caleb demonstrated strong academic ability alongside emerging challenges with written expression and processing. Throughout elementary and middle school, his performance was described as consistently average, with grades in the B–C range. His mother noted that "because he was not failing… they didn't want to test him," and requests for evaluation for learning differences were denied. During this time, he experienced increasing difficulty with school-based tasks, particularly as instruction required written explanations of thinking without explicit instruction in the language needed to do so.

This pattern became especially visible in mathematics. Although he had previously demonstrated understanding of concepts such as long division, he was later unable to complete similar tasks within the structure of the curriculum. His mother described that he was expected to explain mathematical reasoning "without the vocabulary," resulting in assignments that were heavily marked and difficult to complete. His academic record reflected this struggle, despite an underlying conceptual understanding.

At the same time, Caleb demonstrated advanced ability outside of the classroom. In seventh grade, he conducted an independent research project investigating the sound produced when balloons pop. After initial recognition at a science fair, he extended the project, developing a level of detail and analysis that led to collaboration with an acoustics expert at NASA. Together, they co-authored a paper in an acoustics journal, described as the first to accurately explain the phenomenon. This work occurred while his school performance remained in the average range.

As Caleb moved into middle school, academic experiences became more difficult. Requests for evaluation for learning differences were again denied based on his passing grades. At the same time, his academic work became increasingly difficult to complete within the constraints of the school environment. He had to give up extracurricular activities because such a significant amount of time had to be spent on homework to pass classes.

Social experiences shifted across this period. While Caleb formed friendships in early elementary school, these were not consistently sustained. A first-grade teacher had supported connection by introducing him to other creative students, though this was not continued in later grades. By middle school, he experienced increasing isolation alongside ongoing conflict with the school environment. The experience became sufficiently distressing that he chose not to attend his eighth-grade graduation.

Emotional strain intensified during middle school. Teachers removed him from class activities to force the completion of work that did not align with his learning profile. He described feeling “othered” and began to internalize the belief that he was “stupid.”

Physical conditions within the school environment also affected his experience. Environmental concerns, including a mold-affected library, contributed to headaches and discomfort. Although he had a 504 accommodation, implementation was not successful.

Throughout this period, his family engaged in sustained advocacy. His parent arranged supplemental instruction in mathematics when the school would not adjust placement and supported independent research by connecting him with external experts. He completed advanced scientific work, including a project that resulted in a published paper and national recognition, though the school initially refused permission for him to attend a conference to present his findings. In another instance, equipment for a previously approved independent science project was confiscated in a manner that was described by his parent as unfair, preventing completion.

The decision to leave public school developed over time and culminated during eighth-grade graduation week, following a long pattern of limited responsiveness to advocacy efforts and lack of school support.

Caleb's learning environment shifted during high school through independent study and, later, a homeschool umbrella program. With flexibility in pacing, his academic trajectory changed significantly. He completed more than two years of mathematics coursework per semester, progressing from below grade level to completing college-level differential equations by graduation. Additionally, he engaged in extensive dual enrollment coursework across disciplines, including engineering, science, and the humanities, completing a large number of units prior to graduation.

During this period, Caleb also developed advanced technical and creative skills. He taught himself how to write patents and co-authored a patent in the medical device field. His work was described by a supervising professional as comparable to that of a newly graduated law student. He also pursued screenwriting and advanced analytical work in film, alongside continued scientific and technical exploration.

At the time of the interview, Caleb was enrolled in a highly selective university. His learning includes advanced coursework alongside continued engagement in technical, scientific, and creative pursuits developed during his homeschool years.

Case 10: Logan

Logan is a 20-year-old college student at a highly selective university studying mathematics, economics, and computer science. He is HG/PG with exceptional fluid reasoning and was diagnosed with ADHD in middle school. His educational pathway included homeschooling in early childhood, private school during the elementary years with grade acceleration, additional periods of homeschooling, public middle school, homeschooling during the COVID period, and enrollment in a rigorous International Baccalaureate program for high school. At the time of the interview, he was enrolled in a highly competitive university program.

From an early age, Logan demonstrated advanced reasoning and rapid acquisition of knowledge. His mother described that “you do not have to tell him something more than half the time… he just understands things before they’re explained.” He began kindergarten as a homeschooler because of his significant academic advancement. As a homeschooler, his school district also provided him with access to weekly gifted programming through a public school.

Logan's mother, also certified as a school teacher, constructed his education through these opportunities and other advanced curriculum and classes, enabling him to work at a level aligned with his abilities.

As Logan transitioned into formal schooling, his educational path reflected a series of adjustments in response to fit. During elementary years in private school, he experienced grade acceleration but also encountered limitations when instruction still did not align with his level or approach to learning. At one point, a mismatch with a teacher who was not receptive to his questioning contributed to a decision to leave that setting. These early transitions reflected ongoing efforts to balance academic challenge, instructional style, and environment.

In middle school, Logan was placed in gifted programming with students whose cognitive scores were two or more standard deviations from the mean. While this provided some access to advanced content, Logan still needed much more, yet differentiation was inconsistent. Some teachers allowed him to pursue advanced certifications and later serve as a teaching assistant, while others provided instruction that did not adjust for level. His mother described that many teachers "just taught to teach and didn't really recognize one thing or the other, weren't trying to differentiate." Even within this setting, intellectual peer connection remained limited, with the perception that few students were working at his level.

Logan did enjoy social connections, though, and formed friendships through shared activities, particularly athletics, where teammates "took him under their wing." Nonetheless, intellectual connection was separate from these relationships. His mother described that he appeared to compartmentalize his friendships, understanding that these connections were social rather than academic. Outside of school, he sought additional stimulation independently,

including reading extensively online and creating his own projects, such as running a Minecraft server.

Homeschooling periods were interwoven throughout Logan's education, providing opportunities for alignment that were not consistently available in school settings. During these times, instruction was individualized and often outsourced to specialists, allowing for precise academic placement and accelerated pacing. Logan also pursued interests in music and writing, developing advanced skills in piano performance and structured writing through targeted programs.

Logan returned to public school settings for middle school and later high school, where he enrolled in a rigorous International Baccalaureate program. Although the program was considered advanced, the academic experience was described as including "a lot of busy work" rather than sustained intellectual challenge. Logan adapted by strategically managing his workload. His mother described that he would "literally calculate how many homeworks he could miss," recognizing that he could maintain high test performance regardless of the completion of all assignments. He maintained high grades and ultimately graduated at the top of his class.

His engagement in school, however, remained variable and dependent on context. When working with teachers who recognized his abilities, he demonstrated high levels of participation and contribution. When instruction did not align, he reduced engagement while maintaining performance. During one period, the departure of a valued teacher led him to "go into hibernation," and he did not attend school for a week, reflecting the importance of specific relationships within his experience.

Throughout his education, his family provided ongoing advocacy and parallel learning opportunities. This included arranging advanced instruction, supplementing school-based learning, and making decisions to transition between environments when alignment was not sufficient. These transitions reflected a balance of considerations, including academic challenge, access to extracurricular opportunities, and social context.

At the time of the interview, Logan's learning included advanced university coursework alongside continued engagement in analytical and technical fields aligned with his interests.

Cross-Case Analysis

This section presents the cross-case analysis of participant experiences, moving from individual case profiles to systematic comparison across participants in order to identify emerging themes. Following the within-case analysis presented in the preceding section, this analysis reflects Bingham's (2023) Phase 3, cross-case pattern identification, in which codes from individual cases were examined across participants.

For research question 1, cross-case patterns were identified while remaining organized within the five thematic domains informed by the Five Environments for Growth framework: academic/cognitive, social, emotional, physical/sensory, and creative, across the educational contexts of public school and homeschool. Coding within each of the five environments is summarized in separate tables below, moving from individual case profiles to systematic comparison across participants. First, each case was separately analyzed through open coding; these codes were linked to each environment through axial coding. 132 unique deductive codes were established across domains. These codes were then examined across cases to identify

themes that represent recurring patterns within each domain. Findings related to Research Question 1 are presented through these domain-based analyses.

Patterns related to Research Question 2, which examines the role of parents in advocacy, decision-making, and withdrawal considerations, are presented in a separate cross-case analysis following these domain-based findings.

Academic/Cognitive Environment

Cross-case analysis identified consistent patterns in how learners engaged with the level, pacing, and complexity of academic work across settings within the academic or cognitive domain. Table 4.1 presents (a) representative axial codes that were first established across cases within this domain; (b) sorting of those codes into educational contexts of public school or homeschool; (c) deductive coding within those domain contexts; and then (d) patterns within this domain, which established themes. These themes capture patterns in access to appropriately challenging work, responses to assigned tasks, and opportunities for depth and acceleration across public and homeschool settings.

Table 4.1

Academic/Cognitive Thematic Domain: Organization of Participant Codes by Context

Thematic Domains and Open Coding	**Context**	**Cross-Cluster Examples**	**Themes**
Academic/Cognitive Representative Code from (number) codes: Speed	Public School	strong verbal reasoning; advanced knowledge beyond grade level; ability not recognized in class; misconceptions about	Identification and Recognition of Ability

prioritized over depth; timed tests; heavy emphasis on testing; standards-focused instruction; Lexile restrictions limiting access; remedial content despite advanced reasoning; gifted identification denied or ignored; above-level scores not acted upon; minimal or ineffective gifted programming; language-heavy instruction only; quick processing expected; limited autonomy; prescriptive structure; assignment volume excessive; rigid expectations; accommodation denial within gifted settings; heavy writing demands; grading focused on mechanics over ideas; advanced content overlooked due to writing mechanics; marked down for disability-related output issues; timed production used as measure of mastery; structure		ability; delayed or inconsistent identification	
	Homeschool	advanced ability recognized by parent; learning level adjusted to readiness; strengths prioritized in instruction; validation of advanced thinking	
	Public School	grade-level pacing; repetitive content; lack of acceleration; waiting for peers; limited access to advanced material	Access to Level and Pacing.
	Homeschool	accelerated progression; flexible pacing; compacted curriculum; immediate advancement upon mastery; extended depth of study	
	Public School	incomplete written work; difficulty with handwriting; timed tasks limiting performance; output not reflecting understanding; resistance to assigned formats	Output Demands and Production.
	Homeschool	alternative output formats; verbal demonstration of knowledge; use of technology for output; extended time for completion; parent as scribe	

prioritized over content; compliance equated with competence; homework volume overwhelming; organization and submission problems tied to evaluation	Public School	limited differentiation; enrichment without depth; rigid curriculum structure; focus on completion; minimal opportunity for complexity	Depth, Differentiation, and Structural Constraints.
	Homeschool	deep exploration of topics; flexible curriculum; extended inquiry; integration across subjects; learning driven by complexity and interest	
	Public School	disengagement in class; selective task completion; boredom; avoidance of repetitive work; behavioral responses to mismatch	Patterns of Engagement and Response
	Homeschool	sustained engagement; focus on preferred topics; persistence in challenging work; self-directed learning; increased motivation	

Identification and Recognition of Ability. All learners in this study had cognitive assessment data indicating intellectual ability three or more standard deviations above the mean, obtained at different points in their educational pathways through both school-based and independent evaluations. While identification of cognitive ability occurred across learners, the timing and context of these evaluations varied, and school responses did not consistently translate into instructional adjustment.

Across learners, advanced reasoning and multi-year academic asynchrony were consistently observed, with students engaging in content well beyond assigned curriculum outside of school while remaining in grade-level instructional sequences.

In several cases, schools had formal documentation of HG/PG ability, yet this recognition did not result in meaningful changes to instruction. Julian's parent described providing evaluation data indicating exceptionally high cognitive scores, yet the school "offered nothing" in response. Julian's needs were not recognized as atypical of high-achieving students until his parent provided extensive external evidence, at which point school personnel acknowledged that "this isn't a typical kid." Similarly, even after Aarya's parents requested math placement testing, which then evidenced achievement more than 1-2 years above grade level, the school "did nothing." In these instances, identification of giftedness functioned as acknowledgment without access.

Access to Level and Pacing. A central feature of the academic experience was the persistent misalignment between learner readiness and instructional pacing. In six of the cases, the parents claimed that their children frequently entered instructional settings having already mastered core material yet were required to progress through grade-level sequences without adjustment.

This misalignment was visible in daily classroom experience. Julian completed assigned work quickly and then spent extended portions of the school day disengaged, including "sleeping or watching YouTube videos" during class. In contrast, Logan adapted by "literally calculating how many homework assignments he could miss" while maintaining high performance. These responses reflected adaptation to instructional conditions that did not match learner readiness.

Even when learners were placed within gifted or advanced programs, their instructional experience did not consistently align with their advanced ability in the content area. Maya and Caleb, for example, were placed in advanced classrooms with other students who scored two or more standard deviations from the mean, yet instruction remained tied to classroom pacing and group-based expectations, resulting in continued exposure to previously mastered material.

Access to level was further shaped by instructional format. When these students' educational profiles showed clear strengths in learning in specific ways and more challenges in others, schools often failed to adapt instruction to their strengths. Marcus, for example, demonstrated strong spatial and conceptual reasoning but struggled to access content in math, especially when instruction involved verbal explanations and responses. At such moments, his response was simply, "I have no idea." Across learners, standardized response expectations limited access to appropriately leveled instruction.

Output Demands and Production. Across learners, a consistent tension emerged between conceptual understanding and the forms of output required to demonstrate that understanding. Writing and production demands functioned as a significant constraint, particularly for learners whose reasoning exceeded their ability to produce written responses within expected formats or time constraints.

Alex's parent described this directly: "he knows it, he just can't always show it the way they want." In other cases, learners such as Nicholas and Marcus demonstrated clear understanding when speaking or explaining ideas yet avoided or were unable to complete written tasks at the same level, particularly when assignments required sustained handwriting, extended

written responses, or rigid formatting. In several instances, work was left incomplete or marked as incorrect despite evidence of conceptual understanding.

Timed assessments, handwriting expectations, and uniform output requirements created conditions in which performance did not accurately reflect understanding. In this context, learners were evaluated based on what they could produce rather than what they could reason through, contributing to academic profiles that appeared inconsistent despite strong underlying cognition.

Depth, Differentiation, and Structural Constraints. Opportunities for depth and meaningful differentiation were limited and, when present, were often insufficient to alter the learner's daily academic experience. Gifted programming was described as brief, disconnected, or focused on extension rather than sustained engagement with complex material.

Maya, for example, remained in a gifted classroom where instruction continued to repeat previously mastered content, leading her to question the purpose of ongoing repetition. Similarly, Aarya and Logan encountered instructional environments in which enrichment or "advanced" groupings did not translate into meaningful increases in depth or complexity. Aarya's advanced mathematics needs remained unmet despite placement in accelerated groups, while Logan's participation in gifted programming largely involved additional work rather than access to more advanced content. Across learners, structural constraints, including pacing requirements, grading systems, and eligibility policies, limited responsiveness to individual readiness.

Patterns of Engagement and Response. Within these conditions, learners demonstrated varied but patterned responses to academic demands. Some disengaged after completing required

work, while others selectively participated or adjusted effort based on perceived task value. Julian disengaged visibly during class time, while Logan strategically minimized effort while maintaining performance. In contrast, learners such as Nicholas, Marcus, and Elijah were unable to sustain participation when required to engage with repetitive or low-level content over extended periods.

Family responses extended beyond school-based advocacy. Nicholas and Logan, for example, participated in community college coursework, while others accessed advanced online programs, specialized mentorships, and learning opportunities tailored to their strengths and interests. Learners engaged in advanced instruction, specialized programs, and mentorship aligned to their areas of interest.

When learners were provided access to appropriately leveled instruction, the shift in engagement was both immediate and sustained. Across learners, students participated in advanced coursework, including college-level or Advanced Placement classes at young ages, and engaged in specialized domains with depth and persistence. In several cases, learners who were chronologically in early elementary or middle school were functioning academically in secondary or postsecondary contexts, including advanced coursework, research, and participation in academic competitions.

Parents described learners producing work associated with much older students, including sustained academic study, original research, and extended inquiry within areas of interest. In some cases, this included engagement in scientific research, publication-level writing, competitions, or recognition in external academic contexts. These experiences emerged in environments where the level of work matched the learner's readiness.

Social Environment

The social environment reflects cross-case patterns in how learners experienced peer connection, intellectual alignment, and relationships with adults across settings. Table 2 presents representative codes drawn from participant data, organized by context and clustered into themes that capture patterns in social belonging, access to intellectual peers, and relational support.

Table 4.2

Social Thematic Domain: Organization of Participant Codes by Context

Thematic Domain	Context	Cross-Cluster Examples	Themes
Social Representative Codes: Psychological safety with specific teacher; mentor relationships protective; clear expectations reduce anxiety; inclusion settings with experienced teachers helpful; teacher flexibility improving outcomes; encouragement of deep dives; online mentor connections; relational trust moderating distress; parent building peer cohorts; parent coordinating therapies; social anxiety diminished; peer connection through shared interests; adult or mentor connection; variation in social desire; limited intellectual peer match; no close friend at school; instability after regrouping; social mismatch; feeling different; lack of intellectual peers; social connection through shared topics	Public School	feeling different from peers; few friends, no friends; isolation at lunch; social withdrawal	Peer Relationships and Social Belonging
	Homeschool	connection through shared interests; smaller social groups; deeper peer relationships; participation in interest-based communities	
	Public School	lack of intellectual peers, even in gifted classes; mismatch in level; limited access to advanced peers; isolation in the classroom	Intellectual Peer Access
	Homeschool	access to like-minded peers; engagement in older/advanced groups; interest-aligned peers; friendships through strategic gaming	
	Public School	teacher reliance on ; reliance on individual teacher fit; misunderstanding of ability; inconsistent support; behavior-focused responses; limited mentorship	Relationship with Teachers and Mentors

	Homeschool	access to mentors; individualized instruction; subject matter experts; supportive adult relationships;	
	Public School	inconsistent participation; preference for solitude; disengagement in group work;	Patterns of Social Engagement and Alignment
	Homeschool	engagement in structured social settings; participation in small groups; comfort in familiar environments; selective but meaningful interaction	

Peer Relationships and Social Belonging. Across learners, social experiences within school settings were shaped by a consistent mismatch between age-based peer groupings and learners' intellectual profiles and interests. While some learners participated in shared activities, close or sustained peer relationships were often limited.

Marcus and Nicholas initially formed friendships in earlier grades, but these connections were disrupted following changes in classroom grouping. Marcus' parent described that he "didn't connect with anybody in his class" after the shift, and his willingness to attend even partial-day programming declined as those relationships dissolved. Across learners, similar patterns emerged in which friendships were situational or tied to proximity rather than shared thinking or sustained connection.

Logan maintained social relationships within school, but these were described as separate from his intellectual life. His parent noted that he "compartmentalized" friendships, engaging in age-typical activities with peers while seeking intellectual stimulation elsewhere. In other cases, learners participated socially without a sense of belonging, interacting within peer groups but without forming close connections. Maya's mother, for example, described how a peer waved goodbye to Maya, yet Maya claimed not to know their name or consider them a "friend." These patterns reflect partial or conditional belonging rather than sustained relational fit.

Intellectual Peer Access. Access to intellectual peers was limited across school settings, including in advanced or gifted programs. Learners frequently lacked peers who shared similar levels of reasoning, intensity of interest, or pace of learning.

Many sought intellectual engagement outside of school, including independent exploration and online environments, when such connections were not available within their peer group. Similarly, other learners pursued advanced interests independently or through external opportunities when school-based interaction did not provide an adequate intellectual match. In these contexts, intellectual engagement was often decoupled from social participation.

Even in settings designed for advanced learners, variation in readiness remained substantial. Maya questioned the purpose of repeatedly revisiting already-mastered content within a gifted classroom, while Caleb pursued engineering projects and research experiences, including work associated with a NASA balloon project, that extended beyond the opportunities available through age-based school programming. Across learners, intellectual challenge was often found outside of classroom peer groups. The absence of intellectual peers contributed to disengagement, parallel participation, and reliance on solitary or external forms of engagement.

Relationships with Teachers and Mentors. Relationships with individual teachers and mentors played a significant role in shaping both social and academic experience. Connection with a specific teacher often corresponded with increased engagement, while the absence of such connection contributed to withdrawal or reduced participation.

Elijah demonstrated stronger engagement when instructors connected academic content to his interests and allowed for deeper exploration. In one high school English class, he proposed examining how subway settings shaped the narrative of a text, an approach that aligned with his longstanding interest in transportation. When the request was denied, he disengaged from the assignment. In contrast, his homeschool history instructor incorporated Elijah's interest in transportation into historical study, creating a more meaningful point of entry into the content and supporting sustained engagement. In other cases, learners responded more positively to instructors with strong subject-matter expertise, particularly when instruction moved beyond grade-level curriculum and allowed for deeper exploration.

Under conditions of alignment, relationships extended beyond traditional teacher roles. Marcus, for example, engaged more readily in one-to-one settings, often preferring to work alongside a parent or mentor rather than in group instruction.

Patterns of Social Engagement and Alignment. Within school settings, learners demonstrated varied but patterned responses to social conditions. Some maintained surface-level participation without deeper connection, while others withdrew when social and intellectual alignment was not present. In several cases, social fatigue, anxiety, or avoidance increased as misalignment persisted.

Family responses included facilitating access to alternative social environments, including small-group settings, multiage communities, mentorships, and interest-based activities. These environments were organized around shared interests, communication styles, or levels of engagement rather than age alone.

When social environments aligned with learners' interests and ways of interacting, patterns of engagement shifted. Alex formed connections through his Young Bird Lovers Club, where participants met regularly to discuss birds and give presentations to one another, transforming a largely solitary interest into reciprocal interaction. Marcus engaged more readily in one-to-one and small-group settings, including a weekly pragmatic language group and interactions with trusted adults. Maya and Julian developed meaningful social connections through a Dungeons and Dragons group with older peers and adults, where collaborative storytelling and strategy provided a shared foundation for interaction. Other learners formed relationships through mentorships, specialized programs, and interest-based communities.

Across learners, participation alone did not predict belonging. More sustained connections emerged in environments where learners shared interests, communication patterns, or approaches to engagement. Smaller, interest-based, and multiage settings consistently supported stronger social alignment than age-based grouping alone.

Emotional Environment

The emotional environment captures how learners responded to their educational settings, including patterns of distress, withdrawal, and emotional recovery. Table 4.3 presents representative codes organized by context and clustered into themes that reflect how emotional

experience shifted in relation to expectations, demands, and overall fit. These clusters capture both shared and varied experiences in affect, self-perception, and responses to expectations, including how these patterns were expressed across different settings.

Table 4.3

Emotional Thematic Domain: Organization of Participant Codes by Context

Thematic Domain	Context	Cross-Cluster Examples	Themes
Emotional Representative Codes: Daily meltdowns; school refusal; crying before or after school; hitting self; anxiety and stress; depression; burnout; emotional shutdown; escaping class; school building as emotional trigger; loss of love of learning; negative self-talk; testing experiences traumatic; deficit-based framing; emotional distress tied to school; production pressure; performance stress; anxiety spike; significant emotional breakdown; loss of safety within school; burnout preceding removal; gradual	Public School	anxiety related to school; emotional shutdown; frustration; school avoidance; stress from mismatch	Emotional Distress and School-Based Experience
	Homeschool	reduced anxiety; increased emotional stability; sense of safety; decreased stress; improved well-being	
	Public School	difficulty regulating emotions; limited autonomy; rigid expectations; escalation during stress	Regulation, Autonomy, and Environmental Fit
	Homeschool	increased autonomy; improved self-regulation; flexible expectations; supportive environment;	
	Public School	heightened emotional responses; frustration with unmet needs; negative self-perception; emotional fatigue	Emotional Response and Realignment
	Homeschool	positive emotional shifts; increased confidence; renewed interest in learning;	

buildup of misalignment; relief after withdrawal; increased autonomy and agency		emotional recovery; improved resilience	

Emotional Distress and School-Based Experience. Across learners, emotional distress was closely tied to school-based experiences of misalignment. Parents described patterns of anxiety, shutdown, frustration, and, in some cases, school refusal when instructional demands, pacing, or expectations did not match the learner's profile.

Marcus demonstrated increasing anxiety as his school experience became more socially and academically misaligned. His parent described a pattern in which he began avoiding even partial-day attendance, particularly after losing connection with familiar peers and experiencing heightened discomfort in classroom settings. In other cases, learners who were able to meet academic expectations still experienced emotional strain, particularly when required to sustain engagement in repetitive or low-level tasks.

Julian's experience reflected a different pattern, in which disengagement rather than overt distress became the dominant response. Although he was able to complete assigned work, extended periods of boredom and lack of challenge resulted in visible withdrawal during the school day, watching YouTube videos or napping when his assigned work was complete. Across learners, emotional distress did not always present as disruption, but often as quiet disengagement, fatigue, or reduced participation.

Pressure, Expectations, and Performance. Emotional strain was also shaped by expectations related to output, performance, and compliance. Learners were often required to meet standardized expectations for pacing, written production, or task completion, even when these demands were misaligned with their profiles.

Logan, for example, navigated these expectations strategically, maintaining high performance while selectively disengaging from assignments he perceived as unnecessary. His parent described that he would "literally calculate how many homeworks he could miss" while still maintaining top grades, prioritizing assessments, and minimizing effort on repetitive or low-value tasks. Although this approach allowed him to succeed within the system, it reflected an ongoing tension between external expectations and internal engagement, as performance was maintained without consistent intellectual investment.

Across learners, these expectations contributed to patterns of frustration or avoidance when tasks did not reflect meaningful engagement. Emotional responses were tied not only to difficulty but to the perceived relevance and level of the work itself.

Regulation, Autonomy, and Environmental Fit. Learners' ability to regulate emotion and sustain engagement was closely tied to the degree of environmental fit. In school settings where flexibility was limited, emotional regulation was more difficult to maintain, particularly when learners had little control over pacing, format, or content.

Marcus, for example, demonstrated greater comfort and engagement in environments that allowed for proximity to a trusted adult and flexibility in how learning occurred. His preference

for working alongside a parent or mentor reflected a need for both relational and environmental stability. In contrast, rigid classroom expectations increased anxiety and reduced participation.

Emotion varied depending on context. Environments that required sustained compliance without alignment often led to increased stress or withdrawal, while environments that allowed for autonomy and responsiveness supported greater regulation.

Emotional Response and Realignment. Family decisions to modify or exit school settings were frequently connected to these emotional patterns. Parents described reaching points at which continued participation in school was no longer sustainable due to increasing distress, disengagement, or loss of well-being.

When learners transitioned to more aligned environments, emotional patterns shifted. Across learners, reductions in anxiety, increased willingness to engage, and greater overall stability were observed when instructional conditions reflected learner readiness and needs. Nicholas's mother described daily meltdowns after school, homework that frequently ended in tears, and recurring nightmares during his time in traditional schooling. Following the transition to homeschooling and access to more appropriately aligned learning opportunities, his confidence, engagement, and overall well-being improved substantially. Parents frequently described these changes as immediate and noticeable once educational conditions better reflected learner needs.

Physical/Sensory Environment

The physical and sensory environment captures how learners experienced the structure of the school day, including movement, pacing, and sensory demands. Table 4.4 presents

representative codes organized by context and clustered into themes that reflect patterns in energy use, sensory load, and the impact of physical conditions on participation.

Table 4.4

Physical/Sensory Thematic Domain: Organization of Participant Codes by Context

Thematic Domain	Context	Cross-Cluster Examples	Themes
Physical/Sensory Representative Codes: long periods of sitting; movement restricted; transitions stressful; overstimulation; fatigue from sustained compliance; need for breaks ignored; physical restlessness interpreted as behavior; processing speed limitations; working memory strain; executive overload leading to burnout; task initiation difficulty; distractibility; lost or incomplete work; output avoidance under load; need for breaks; flexible	Public School	noise sensitivity; visual overstimulation; discomfort with clothing or seating; difficulty concentrating; sensory overload	Sensory Experience and Environmental Constraints
	Homeschool	reduced noise; flexible seating; comfortable clothing	
	Public School	limited movement opportunities; fatigue; difficulty sustaining attention; need for breaks; decreased energy	Movement, Energy, and Daily Demands.
	Homeschool	frequent movement breaks; flexible scheduling; pacing to think	
	Public School	fixed seating; restricted movement; structured schedule; trouble with transitions	Physical Environment and Alignment
	Homeschool	movement during tasks; adaptable schedule; outdoor learning;	

seating; movement-based learning; short instructional blocks; balanced daily rhythm; sleep improved Physical/Sensory Physical/Sensory			

Sensory Experience and Environmental Constraints. Across learners, physical and sensory aspects of school environments contributed to patterns of discomfort, distraction, or withdrawal. Classrooms were described as overstimulating or restrictive, particularly for learners who were sensitive to noise, clothing, or environmental demands.

Ethan, for example, experienced sensory sensitivities that shaped his daily experience of school. Closed-toe shoes felt restrictive, and the sensation of the backs of his legs touching classroom chairs could become a source of ongoing discomfort throughout the day. Aarya experienced challenges of a different kind. One teacher noted that visual stimuli throughout the classroom, including posters and decorations, frequently competed for her attention, making it difficult to sustain focus on instruction. In other cases, learners described becoming overwhelmed by crowded hallways, noisy classrooms, or the cumulative sensory demands of the school environment. Across learners, sensory experiences often interacted with academic expectations in ways that affected participation, engagement, and overall educational fit.

Movement, Energy, and Daily Demands. Across learners, the structure of the school day functioned as a physical constraint. Extended periods of required attendance, limited opportunities for movement, and sustained engagement across multiple settings contributed to

fatigue and reduced capacity for participation. Alex demonstrated a clear need for movement throughout the day, which was difficult to accommodate within traditional classroom expectations. At school, his movements were restricted by tape around his desk and chair, limiting how far he could move. When he began homeschooling, his mother described the benefits of being able to study nature outdoors and meet friends on bikes. Nicholas, too, needed movement; he paced to think, particularly with complex and novel ideation, which was restrained in his classroom yet later permitted in his community college classes. Like Alex, Nicholas also engaged in homeschool nature programming with peers.

Physical Environment and Alignment. When physical environments allowed for flexibility, patterns of engagement shifted. Across learners, access to movement, flexible seating, and adjusted schedules supported greater participation and reduced distress.

Marcus demonstrated increased engagement in settings that allowed proximity to a trusted adult and flexibility in physical positioning rather than being confined to a desk and chair, while Alex benefited from environments that incorporated frequent movement, including outdoor learning. Ethan's home learning environment allowed him to move freely, learn in preferred positions, and avoid sensory triggers that had created discomfort throughout the school day. Similarly, Nicholas demonstrated greater sustained engagement when he was able to pace while thinking at home or in his college classes, where professors permitted this movement.

Across cases, physical experience was shaped not only by individual sensory profiles but by the degree of alignment between environmental conditions and learner needs. When flexibility was present, learners demonstrated greater comfort, sustained participation, and reduced signs of overwhelm.

Creative Environment

The creative environment captures how learners engaged in idea development, exploration, and self-directed work. Table 4.5 presents representative codes organized by context and clustered into themes that reflect patterns in autonomy, depth of inquiry, and opportunities for sustained engagement.

Table 4.5

Creative Environment: Organization of Participant Codes by Context

Thematic Domain	Context	Cross-Cluster Examples	Themes
Creative Representative Codes: limited opportunity for deep dives; restricted autonomy over topics; creativity confined to structured assignments; advanced interests not nurtured; gifted programming lacking depth; loss of intrinsic creative engagement; focus on compliance over exploration; choice in topics; interest-led learning; passion projects; multisensory instruction; robotics or competition-based engagement; worldschooling; play-	Public School	advanced idea generation; limited opportunity to express ideas;	Creative Thinking and Ideation
	Homeschool	expanded idea development; integration of interests; exploration of complex topics; visible expression of thinking	
	Public School	rigid assignment formats; limited flexibility in responses; emphasis on correctness; constrained creativity; output expectations	Constraints on Creative Expression
	Homeschool	open-ended tasks; flexible formats; creativity encouraged; multiple ways to demonstrate learning; reduced constraints	
	Public School	limited hands-on opportunities; structured activities; restricted	

based learning; creative output aligned with strengths; deep dives into interests; integration across subjects; exploration beyond curriculum; flexible pacing; independent projects; self-directed learning; open-ended inquiry		exploration;	Modes of Creative Engagement
	Homeschool	hands-on projects; building and design; applied problem solving; creative exploration; integration of interests	
	Public School	inconsistent creative output; limited alignment with interests; grading based on external demands	Creative Expression and Alignment.
	Homeschool	sustained creative work; independent projects; alignment with interests; extended exploration; visible creative output	

Creative Thinking and Ideation. Across learners, creative capacity was most evident at the level of ideation, including systems thinking, conceptual integration, and the ability to generate and manipulate complex ideas. These forms of creativity were often expressed through internal reasoning or nontraditional modes rather than through conventional academic products.

Marcus demonstrated this pattern through advanced visual-spatial reasoning and systems-based thinking. His parent described how he "builds how his brain thinks," constructing and navigating complex environments across media, including digital and physical formats. His ability to track spatial relationships and manipulate perspective in real time reflected a form of creativity grounded in systems thinking rather than symbolic or written expression. Similarly, Logan engaged in independent creation of complex systems, including managing and developing a Minecraft server and pursuing self-directed intellectual exploration outside of school contexts. Across learners, creative thinking was frequently expressed through the generation and organization of ideas rather than through formal production.

Constraints on Creative Expression. Despite strong ideational capacity, opportunities for creative expression within school settings were often constrained by requirements related to format, structure, and output. Creative work was frequently prescribed, time-limited, or evaluated based on adherence to specific expectations rather than originality or depth of thinking. For example, Aarya enjoyed her art class but received a grade of "C" because she often took more time and missed the due date. Other parents described how art class often required the students to copy as the teacher directed them, rather than explore open-ended creativity. Across learners, these constraints contributed to a disconnect between creative capacity and observable performance. Creative thinking was present but not consistently captured within the formats used for evaluation.

Modes of Creative Engagement. Learners engaged in creative work through a range of modes that extended beyond traditional academic tasks. These included building, design, movement-based engagement, and applied problem-solving.

Marcus's creative work extended across digital and physical domains, including construction with Lego, cardboard, and virtual environments, reflecting iterative design and spatial reasoning. Alex demonstrated greater engagement in contexts that incorporated movement, such as learning outside and going on hikes. Elijah engaged in sustained creative problem-solving when he was able to experiment with engineering design on his 3d printer. Across learners, creative engagement was often sustained when it allowed for flexibility in approach, medium, and process.

Creative Expression and Alignment. When learning environments aligned with learners' profiles, creative expression became more visible and sustained. Across learners, access

to flexible, interest-driven, or advanced contexts supported extended engagement with complex ideas. Caleb's experience is illustrative. After questioning what makes the sound when a balloon pops, Caleb's parents connected him with an expert in the field, and with their mentorship, Caleb conducted experimentation, entered and won a science fair, completed a patent application, and even became a first author with this expert in a scientific journal on the topic. projects to Elijah's learning interests, such as testing trajectories with his Nerf gun.

What has become apparent is that creative experience revealed a gap between ideation and expression. Learners demonstrated complex thinking, yet school-based formats often constrained how that thinking could be represented. When environments allowed open-ended exploration and flexible formats, creative expression became sustained and more reflective of underlying thinking. These patterns indicate that creative expression is shaped by the conditions through which it is developed and evaluated.

Parent Advocacy, Decision-Making, and Withdrawal

Findings related to Research Question 2 focus on the role of parents in advocacy, decision-making, and withdrawal across settings. Like the environment-based analysis for Research Question 1, this analysis initially used deductive coding aligned to the three thematic domains of advocacy, decision-making, and withdrawal considerations that premised this Research Question. Axial coding was then used to ensure that additional patterns beyond these domains were also captured. This resulted in approximately 35 initial codes, which were then clustered based on similar patterns to establish themes. Table 4.6 presents the thematic domains that align with Research Question 2 and deductive codes drawn from participant data that were then inductively organized into themes.

Table 4.6

Parent Advocacy and Decision-Making: Organization of Participant Codes

A Priori Codebook From Research Question 2	**Deductive Code Examples**	**Themes**
Parent Advocacy within Misaligned School Contexts	Requests for acceleration; communication with teachers; sharing outside assessment data; IEP/504 meetings; requests for changes to placement, pacing, or instruction	Advocacy within school systems; attempts to establish alignment; submission of external data to support recognition
Parent Decision-Making	Iterative decision-making; increasing divergence between school and learner needs; development of parallel learning pathways	Weighing school fit; comparing school vs other settings; evaluating learner engagement and well-being

Withdrawal	Sustained mismatch across environments; continued misalignment despite advocacy; disengagement; emotional distress; school refusal	Withdrawal as response to sustained misalignment; withdrawal following cumulative unmet need

Parent Advocacy within Misaligned School Contexts

Parents engaged in sustained advocacy within school systems while attempting to establish alignment for their children. This included requests for acceleration, communication with teachers, participation in IEP and 504 meetings, and submission of outside assessment data to support recognition of ability and need. In Julian's case, his parent submitted extensive evidence of advanced ability, including videos of his knowledge, which led administrators to acknowledge that "this isn't a typical kid," yet acceleration beyond math was still denied/ In Aarya's case, her parent requested math placement testing that demonstrated performance well above grade level, yet the school "didn't do anything about it," despite clear readiness. In Elijah's case, advocacy extended beyond communication, with his parent volunteering daily, training aides, and bringing in a psychologist to support the school team. These efforts reflect continued attempts to establish alignment within existing school structures.

Parent Decision-Making. Parent decision-making unfolded as an ongoing process shaped by changing conditions rather than a single event. Families described weighing school placement against learner needs while monitoring engagement and well-being. In Aarya's case, her parent described "waking up in the morning not knowing whether she would go to school that day or not," reflecting instability that led to repeated consideration of alternatives. In Julian's case, he began a new school year expecting previously discussed changes, and only when those changes were not implemented did his family decide to homeschool. In Caleb's case, the decision developed over multiple years of denied evaluation and limited school response. Decision-making reflected continued evaluation of fit as mismatch persisted.

Withdrawal. Withdrawal occurred in the context of sustained mismatch and continued misalignment despite advocacy efforts. Parents described patterns of disengagement, emotional distress, and school refusal that reflected cumulative unmet need. In Marcus's case, refusal increased to the point that he no longer wanted to attend after earlier reductions in school participation had not addressed his needs. In Elijah's case, he reached a point of full disengagement following escalating strain, stating, "I'm never going there again," after experiencing what his parent described as full autistic burnout. In Nicholas's case, his family described reaching a point where "it just wasn't sustainable anymore," following daily meltdowns and ongoing distress tied to school. Withdrawal followed sustained conditions that did not change, particularly when learner response intensified, and continued enrollment was no longer viable.

Chapter 4 Summary

This chapter presented the findings of the cross-case analysis, organized by research question and grounded in the Five Environments for Growth framework. Findings related to Research Question 1 showed consistent patterns of misalignment across academic, social, emotional, physical, and creative environments within school contexts. Learners were not consistently met at their level and encountered constraints in pacing, output, and structure that limited access to appropriately challenging work. These conditions were associated with reduced engagement and increased emotional strain. In contrast, homeschool and other realigned environments reflected closer alignment in level, pacing, and structure, with greater flexibility and sustained, interest-driven engagement.

Findings related to research question 2 examined the role of parents in advocacy, decision-making, and withdrawal across settings. Parents engaged in sustained advocacy within school systems, including requests for acceleration, communication with educators, and submission of outside assessment data. When instructional changes did not occur, families supplemented learning outside of school while continuing to seek alignment within the system. Decision-making unfolded as parents weighed school fit in relation to learner needs and well-being. Withdrawal occurred in the context of sustained mismatch and increasing learner distress, including disengagement and school refusal.

Following withdrawal, families constructed learning environments aligned with the learner's needs. These environments reflected intentional decisions related to pacing, structure, and content, including parent-led instruction, coordination of classes, access to advanced coursework, and opportunities for extended engagement in areas of interest. This shift marked a

move from constrained and misaligned conditions to environments that supported sustained engagement and access to appropriately leveled learning.

Taken together, these findings show a consistent pattern in which sustained mismatch within school contexts, combined with limited instructional response, contributed to escalating learner distress and eventual withdrawal. Following withdrawal, families constructed learning environments aligned with learner needs across domains.

Chapter Five extends this analysis through Bingham's (2023) Phases 4 and 5. In Phase 4, identified codes are examined in relation to each other as they are developed into themes that clarify relationships across environments and parent actions. In Phase 5, these themes are presented through four larger findings that pave the way for a new conceptual framework with three illustrative models explaining the relationship between environmental mismatch, parent advocacy and decision-making, withdrawal, and the realignment of learning environments that fit each unique learner.

Chapter 5: Discussion

This qualitative cross-case study examined the educational experiences of highly and profoundly gifted twice-exceptional (HG/PG-2e) learners who experienced both public school and homeschooling, with a focus on how educational fit was experienced across contexts. Using Bingham's (2023) Five-Phase model for qualitative cross-case analysis, the study explored how parents described learner experiences across the academic and cognitive, social, emotional, physical and sensory, and creative environments within public school and homeschool settings. The purpose of this chapter is to synthesize and interpret these findings, moving from themes identified in Chapter 4 toward higher-level findings, explanatory models, and a conceptual framework that may offer new understandings of educational fit among HG/PG-2e learners and their families.

The chapter begins by orienting the reader in a brief synthesis of the Five Environments for Growth conceptual framework (Baum & Schader, 2024), which guided data analysis. Following this synthesis, the researcher will describe the synthesis of themes into four major factors that explain educational fit and educational misalignment among participants: (a) educational misalignment across the five environments; (b) system constraints in recognition and response; (c) withdrawal as an adaptive response; and (d) realignment through positive niche construction.

To offer an explanation of the possible implicit dynamics that characterize the interplay between and among the factors, this chapter introduces three explanatory models. First, the Ideation-Production Bottleneck Model illustrates a primary mechanism in which asynchronous development and directed production demands may constrain expression, leading to

misrecognition of higher-level understanding and readiness for advanced instruction. The Parent-Led Realignment Process then describes the role parents take on in recognizing and responding to educational misalignment through parent advocacy, creating parallel learning opportunities beyond the school structure, educational decision-making, and ultimately withdrawal during prolonged multidomain misalignment. Finally, the Educational Realignment Model illustrates how improved educational fit emerged through intentional alignment across the academic/cognitive, social, emotional, physical/sensory, and creative environments. Grounded in Positive Niche Construction (Armstrong, 2011, 2025), the model demonstrates how learners may thrive when educational environments are adapted to better reflect their strengths, interests, needs, and patterns of development. Although educational realignment in this study was most visible within homeschooling contexts, the model may also inform how schools and other stakeholders intentionally create more responsive educational environments across learning settings.

To support the construction of educational realignment, a new conceptual framework is offered: The Educational Fit Alignment Framework. Emerging through synthesis of the four major factors, this framework conceptualizes educational fit as a dynamic and ongoing process shaped by interactions among learner needs, environmental responsiveness, systemic constraints, and parent-led efforts to create alignment across the five environments. While parent-led realignment was most visible within this study, the framework also suggests that schools and other educational stakeholders may serve as primary drivers of educational alignment when systems are sufficiently responsive to learner needs across the five environments.

The chapter concludes with implications for educational practice and future research related to HG/PG-2e learners across educational settings.

Summary of The Five Environments for Growth Conceptual Framework

The Five Environments for Growth (Baum & Schader, 2024) provides the conceptual framework for this study, positioning academic and cognitive, social, emotional, physical and sensory, and creative environments as interrelated conditions shaping learner experience. Within this framework, learner experience is shaped through interaction among multiple domains affecting learner access, engagement, belonging, regulation, and expression of understanding. The framework describes:

- Academic/cognitive environment: level, pacing, complexity, novelty, and opportunities for intellectual challenge and inquiry;
- Social environment: belonging, peer connection, relationships, and access to intellectual or interest-based peers;
- Emotional environment: psychological safety, stress regulation, and emotional conditions supporting participation and learning;
- Physical/sensory environment: movement, transitions, sensory input, and environmental conditions influencing regulation and access; and
- Creative environment: opportunities for ideation, inquiry, innovation, problem-solving, and flexible expression of understanding.

This study supports and extends this framework by conceptualizing educational fit as alignment between the learner and those interacting environmental conditions across educational

contexts. Findings demonstrated that access, engagement, participation, and demonstration of understanding were shaped through interaction among the five environments rather than through academic placement alone.

In this study, the Five Environments influenced one another. Challenges in one environment often affected experiences in others. For example, academic and cognitive mismatch frequently influenced social participation, while physical and sensory demands affected access to learning. Emotional distress often emerged when needs in other environments remained unmet. When educational experiences aligned with the learner's profile, participation increased, engagement was sustained, and learners more consistently demonstrated their understanding. When educational experiences were poorly aligned, engagement declined, work product did not consistently reflect ability, and learners often withdrew from assigned tasks.

Educational fit in this study is defined as the degree of alignment between the learner and the academic/cognitive, social, emotional, physical/sensory, and creative environments within the learning context. This alignment extends beyond placement in a particular class and is reflected in the extent to which these environments support access to instruction, sustained engagement, and opportunities to demonstrate understanding. Educational fit emerged as a dynamic condition shaped by interactions among the five environments. Figure 5.1 illustrates how the Five Environments interact to influence learner access, engagement, and expression of understanding.

Figure 5.1

The Five Environments for Growth

Parents in this study described repeated efforts to address multidomain environmental misalignment within public school settings, though school responses were often limited or insufficient to resolve broader conditions affecting learner access and engagement. Homeschooling provided families with greater flexibility to align instruction, pacing, sensory conditions, and opportunities for advanced or interest-based learning. Families constructed educational fit by combining learning experiences, resources, relationships, and opportunities that reflected the learner's needs. Educational fit remained dynamic, requiring continued adjustment as learner interests, strengths, and needs evolved.

Integrated Explanatory Factors

Examination of the themes emerging from the interview data in response to the two research questions revealed larger findings that were integrated into four overarching factors explaining the school experience of HG/PG-2e students and their families. These findings are

interpreted in relation to existing literature, and they collectively build toward creating alignment among the five environments for growth with the learner's profile. Positive niche construction (Armstrong, 2025) serves as an interpretive lens within this discussion, supporting examination of how families modified educational conditions in response to multidomain environmental misalignment and changing learner needs across contexts.

Multi-Domain Environmental Misalignment

Synthesis of the themes identified in Chapter 4 revealed multidomain environmental misalignment as a central factor influencing educational fit for HG/PG-2e learners. Educational fit emerged as a multidimensional construct shaped by the interaction of academic/cognitive, social, emotional, physical/sensory, and creative environments, consistent with the Five Environments for Growth framework (Baum & Schader, 2024; Reis et al., 2025). Findings further suggest that these environments functioned as an interconnected system in which misalignment in one environment often influenced access and participation in others. Educational fit, therefore, reflected the degree of alignment between the learner and these interacting environmental conditions.

Prior research describes HG/PG learners as demonstrating asynchronous development, characterized by uneven development across cognitive, social, emotional, and physical domains relative to age-based expectations (Silverman, 2013; Wood et al., 2024). Participant experiences reflected these patterns. Learners frequently demonstrated advanced cognitive abilities while experiencing challenges that affected how those abilities were expressed and supported within school settings. For many learners, disability-related needs further shaped access to instruction and opportunities to demonstrate understanding (Baum et al., 2017; Foley-Nicpon et al., 2011).

These findings suggest that educational fit for HG/PG-2e learners extends beyond academic placement and is influenced by alignment across multiple interacting environments.

Table 5.1 summarizes how themes led to this contributing factor.

Table 5.1

Multi-Domain Environmental Misalignment

Environment	**Themes (from Chapter 4)**	**Multi-Domain Environmental Misalignment**
Academic/Cognitive	Access to Level and Pacing; Output Demands and Production; Patterns of Engagement and Response	Misalignment in level, depth, and pacing constrained access to appropriate academic challenge
Social	Intellectual Peer Access; Peer Relationships and Social Belonging	Limited access to intellectual peers and interest-based relationships contributed to social isolation and a reduced sense of belonging within age-based settings.
Emotional	Emotional Distress and School-Based Experience: Regulation, Autonomy, and Environmental Fit	Emotional distress and dysregulation reflected sustained conditions of misalignment within the learning setting.
Physical/Sensory	Sensory Experience and Environmental Constraints; Movement, Energy, and Daily Demands; Physical Environment and Alignment	Sensory load and movement constraints interfered with regulation, participation, and sustained engagement.
Creative	Sensory Experience and Environmental Constraints; Movement, Energy, and Daily Demands; Physical Environment and Alignment	Constrained opportunities for inquiry, originality, and authentic intellectual exploration limited creative engagement and expression of advanced understanding.

These conditions of multidomain environmental misalignment were reflected throughout participant descriptions of public-school experiences. Several parents described learners who

earned strong grades or demonstrated advanced reasoning while simultaneously experiencing increasing distress, disengagement, and withdrawal from school participation. In one case, a learner who consistently performed well academically nonetheless experienced prolonged emotional exhaustion and eventual refusal to return to school following sustained misalignment across academic/cognitive, emotional, sensory, and social environments. Other participants described classroom conditions where questioning was discouraged, movement was restricted, or limited flexibility was provided to demonstrate knowledge. Misalignment in one environment often impacts other areas of well-being.

System-Constrained Recognition and Response Factor

Building on the multidomain environmental misalignment, a second factor emerged regarding the constraints in how schools recognized advanced ability and limited advanced learning opportunities for HG/PG-2e learners within classroom settings. Although schools often had access to learners' cognitive assessments. showing very advanced intellectual ability, educational decisions remained tied to grade-level expectations for pacing, task completion, written production, and expected classroom behavior. These forms of performance did not consistently reflect advanced readiness for advanced content, particularly when learners demonstrated understanding more readily through discussion, problem-solving, or other types of responses.

Current research on 2e learners has documented how advanced ability may remain partially obscured when interpretation relies heavily on observable classroom performance and conventional production expectations (Baum et al., 2017; Foley-Nicpon et al., 2013). Research

on HG/PG learners further suggests that asynchronous development may contribute to a mismatch between learner readiness and normed age-based expectations within school settings (Gross, 2004). Present findings extend this literature by demonstrating that even when schools possessed substantial evidence of advanced cognitive ability, educational response frequently remained constrained by standardized structures, production demands, behavioral expectations, and conventional indicators of classroom functioning.

Themes identified in Chapter 4 are organized in Table 5.2 to illustrate how system-level expectations shaped recognition of ability and educational response within misaligned classroom settings.

Table 5.2

System-Constrained Recognition and Response:

Environment	**Themes (From Chapter 4)**	**Resulting System-Constraints**
Academic/Cognitive	Identification and Recognition of Ability	Even when schools possessed evidence of exceptional ability well above gifted program qualification thresholds, recognition and educational response remained closely tied to observable classroom performance and expected forms of output.
Academic/Cognitive	Access to Level and Pacing	Learner readiness for advanced conceptual challenge was not consistently recognized through grade-level instructional pacing and placement structures.
Academic/Cognitive	Output Demands and Production	Production demands constrained how advanced reasoning became visible within classroom settings.

Academic/Cognitive	Depth, Differentiation, and Structural Constraints	Structural limits shaped access to advanced instruction and opportunities for sustained academic challenge.
Emotional	Pressure, Expectations, and Performance	Timed performance, pacing expectations, productivity demands, and behavioral compliance shaped the interpretation of learner competence within classroom settings.

Highly visible indicators of advanced reasoning ability were often insufficient to prompt meaningful academic acceleration or educational response within school settings. Parents described children demonstrating unusually advanced reasoning, vocabulary, technical interests, and self-directed learning at very young ages, often in ways readily observable within school settings. One parent described a 7-year-old independently writing about nuclear reactors for a class writing assignment, while another described a 5-year-old discussing applications he was coding with the school principal. Nevertheless, neither child was identified for advanced learning services.

Conventional measures of classroom performance also frequently failed to capture both advanced cognitive ability and disability-related learning needs within HG/PG-2e profiles. Parents described learners asking highly sophisticated questions, demonstrating advanced mathematical reasoning, reading far beyond grade level, and pursuing specialized interests uncommon among age peers. Even when school-based achievement testing demonstrated performance substantially above grade level, parents frequently described limited academic acceleration or continued reliance on grade-level pacing and standardized service models.

Even highly visible and formally documented evidence of profound cognitive ability did not necessarily result in meaningful academic recognition or educational support within school settings. One parent described a learner with a WISC-V General Ability Index (GAI) score of 154 who experienced significant emotional dysregulation and eventual school refusal within a significantly misaligned educational environment. This child was described as hiding under desks or throwing an iPad when overwhelmed by required written production demands. Despite documented evidence of profound cognitive ability already shared with the district, the learner was denied identification for gifted programming through a district process emphasizing additional measures of classroom performance, behavioral functioning, and grade-level school indicators. As the parent reflected, “I wish [educators] were more curious about how certain kids learn.”

Collectively, these experiences suggested that educational responses were frequently shaped more by conventional expectations surrounding classroom performance, pacing, production, and behavioral functioning than by evidence of highly advanced cognitive ability. Persistent mismatch between learner functioning and school response further contributed to ongoing parent advocacy efforts and increasing attempts to establish educational fit outside traditional classroom structures.

Withdrawal as an Adaptive Response to Sustained Misalignment Factor

In response to misalignment and inadequate school response, the families in this study became increasingly proactive in attempting a better educational fit through increased advocacy, creating more learning opportunities for their children outside school, and finally deciding to withdraw their children from that school setting. Families engaged in ongoing advocacy efforts

to secure recognition of learner need, access to appropriately leveled instruction, and educational conditions aligned with learner readiness. When sustained misalignment remained unresolved, withdrawal increasingly emerged as the only viable means of establishing appropriate educational fit. For many families, homeschooling was therefore not experienced as a preferred educational choice among equivalent options, but as the only remaining viable option after sustained efforts to establish alignment within available school settings failed.

Existing literature often frames homeschooling decisions in terms of parent preference, dissatisfaction with schooling, or desire for individualized instruction (Connolly-Sporing et al., 2024; Jolly & Matthews, 2018). In this factor, however, withdrawal often followed years of attempts to establish educational fit with traditional school settings. In several cases, psychologists had warned families early in the advocacy process that homeschooling might eventually become necessary, yet parents still spent significant time and resources attempting to achieve school alignment with their learners' needs before withdrawing.

Table 5.3 illustrates how withdrawal from public school emerged as a response to prolonged educational misalignment instead of as an initial preference for homeschooling.

Table 5.3

Parent Advocacy to Withdrawal as an Adaptive Response to Sustained Misalignment

Themes Aligned with Research Question 2	**Parent Responses to Sustained Misalignment**
Parent Advocacy within Misaligned School Contexts	Parents described sustained advocacy efforts to address multidomain environmental misalignment within public school settings.
Parent Decision-Making	Parent decision-making was shaped by ongoing patterns of learner disengagement,

	distress, unmet need, and limited school responsiveness.
Withdrawal	Families increasingly constructed parallel learning and alternative educational pathways when broader environmental alignment was not achieved within school settings.

Participant experiences illustrated how withdrawal decisions developed alongside ongoing parallel learning while learners remained enrolled in school. Within this study, parallel learning refers to supplemental learning occurring outside the formal school day to compensate for unmet academic, emotional, social, creative, or developmental needs generally expected within the school environment. Parents described after-school acceleration, independently sourced curriculum, weekend and summer enrichment, educational travel, and therapists, well beyond more common after-school sports and music programs, with their need to supplement what the district was not providing. These patterns reflected early forms of environmental reconstruction consistent with Positive Niche Construction (Armstrong, 2010, 2025), a process further developed in the next finding, through ongoing educational realignment across learning environments.

As advocacy demands intensified, parents increasingly described exhaustion and increasing concern regarding the long-term effects of continued mismatch on their child's well-being, motivation, and self-concept. Consistent with existing literature on the importance of an appropriate match for HG/PG and 2e learners (Assouline et al., 2015; Baum et al., 2014; Schultz, 2018), parents described eventual withdrawal from the school as a necessary response.

Realignment Through Positive Niche Construction Factor

Following withdrawal from traditional school settings, parents described actively restructuring multiple aspects of their children's learning in response to longstanding mismatch within prior school placements.

Positive Niche Construction, as conceptualized by Thomas Armstrong (2010, 2025), extends from principles in evolutionary biology describing how organisms modify aspects of their environments to improve functioning and adaptation. Armstrong applied this concept to human development, arguing that individuals function differently depending on the degree of alignment between the individual and the environment. Learning challenges may become more pronounced when there is a persistent mismatch between the two. Positive Niche Construction emphasizes actively shaping environmental conditions to better support development and well-being. Armstrong further suggested that individuals whose characteristics fall outside normative systems may particularly benefit from environments designed around their needs rather than environments characterized by chronic misalignment.

Through this process, participants described modifying educational conditions in ways that better aligned with learner readiness, regulation, and well-being. Parents also described greater flexibility in how learners accessed learning opportunities and demonstrated understanding. These modifications reflected efforts to improve educational fit across the five environments for growth.

Parents additionally described educational realignment as extending beyond academics alone. They emphasized the importance of intellectual peers, emotional safety, meaningful engagement, and opportunities to pursue learner interests. Parents also described drawing upon a

range of learning opportunities beyond traditional school structures, including mentors, online courses, dual enrollment, educational travel, and interest-based enrichment. These opportunities were selected to align with learner readiness, strengths, and interests.

In several cases, parents described developmental growth that had previously appeared stalled or inaccessible within traditional school settings. These findings suggest that learner functioning is highly context-dependent and influenced by environmental alignment across multiple domains of growth rather than academic placement alone.

Table 5.4 illustrates how themes demonstrate parent realignment through the process of Positive Niche Construction.

Table 5.4

Realignment Through Positive Niche Construction

Environment	**Themes (From Chapter 4)**	**Examples of Realignment Through Positive Niche Construction**
Academic/Cognitive	Access to Level and Pacing; Output Demands and Production; Depth, Differentiation, and Structural Constraints; Patterns of Engagement and Response	Individualized pacing, asynchronous progression, self-directed learning, and sustained intellectual challenge responsive to learner readiness
Social	Peer Relationships and Social Belonging; Intellectual Peer Access; Relationships with Teachers and Mentors; Patterns of Social Engagement and Alignment	Access to intellectual peers, flexible social engagement, and relationships supporting belonging, authenticity, and shared interests
Emotional	Emotional Distress and School-Based Experience;	FOLLOW ABOVE Environmental realignment supported increased

	Regulation, Autonomy, and Environmental Fit; Emotional Response and Realignment	emotional regulation, learner confidence, willingness to engage academically, and renewed participation in learning
Physical/Sensory	Sensory Experience and Environmental Constraints; Movement, Energy, and Daily Demands; Physical Environment and Alignment	Modification of sensory demands, workload, pacing expectations, and daily routines supported learner regulation, executive functioning, sustainability, and access to participation.
Creative	Creative Thinking and Ideation; Constraints on Creative Expression; Modes of Creative Engagement; Creative Expression and Alignment	Opportunities for inquiry, self-directed study, mentorship, ideation without rigid production requirements, and flexible demonstration of understanding supported deeper engagement and sustained exploration of learner interests.

Participant experiences across the four higher-level findings reflected a process consistent with Positive Niche Construction. Parents described persistent efforts to improve educational fit through advocacy, parallel learning, educational decision-making, and modification of learning conditions in response to learner needs. In most cases, homeschooling functioned as a process of educational realignment in which families actively adjusted environmental conditions to better support learner functioning. Educational fit remained dynamic, however, as learner needs changed and families continued to evaluate and modify educational placements and learning opportunities.

Collectively, these findings suggest a process of educational realignment in which sustained multidomain misalignment contributed to ongoing efforts to establish educational fit for HG/PG-2e learners. Participant experiences reflected movement from persistent mismatch toward increasingly responsive educational environments. These findings further suggest that

educational fit is shaped by alignment across multiple interacting environments rather than academic placement alone.

Supporting Explanatory Models

While the four major factors describe the broader movement from educational misalignment toward educational fit, additional implicit dynamics emerged that help explain how these processes unfolded. To provide a deeper understanding of these dynamics, three explanatory models are introduced. First, the Ideation–Production Bottleneck Model illustrates a mechanism through which asynchronous development and production demands may constrain the expression of advanced understanding within traditional school settings. Then, the Parent-Led Realignment Process describes how parents recognized multidomain misalignment, engaged in advocacy, developed parallel learning opportunities, and navigated educational decision-making during prolonged mismatch. Finally, the Realignment Model illustrates how intentional environmental modification through Positive Niche Construction may support improved educational fit across the five environments. Together, these models provide a more detailed understanding of how educational misalignment, educational response, and educational realignment interact in shaping educational fit for HG/PG-2e learners.

Ideation–Production Bottleneck Model: Constrained Expression of Ability

The Ideation–Production Bottleneck Model conceptualizes a recurring mismatch between advanced learner ideation and the forms of production most heavily weighted within traditional school settings. In this model, ideation refers to the learner's underlying thinking: ideas, reasoning, conceptual understanding, and intellectual connections. Production refers to the

visible output that schools typically evaluate, including written assignments, task completion, mechanics, pacing, and classroom work product. The bottleneck occurs when learner ideation is substantially more advanced than what can be efficiently translated through required production formats. Across nearly all learners in the present study, written production emerged as a major point of educational misalignment.

Existing literature has identified masking, uneven performance, and discrepancies between advanced reasoning and observable school performance among gifted and 2e learners (Baum et al., 2014; Foley-Nicpon et al., 2013). The Ideation–Production Bottleneck Model extends this work by conceptualizing how advanced ideation may become compressed through conventional production demands within school environments.

Parents repeatedly described learners who verbally demonstrated sophisticated understanding yet struggled to efficiently translate that understanding into the written formats required in school. One young learner's response to required written production included hiding under desks and throwing an iPad when overwhelmed by writing demands. Another middle school learner's nightly homework demands became so consuming that the family eliminated after-school sports because written assignments extended through most evenings. In these cases, the difficulty did not appear to involve understanding the material itself, but translating complex thinking into the written forms required by assigned work. Advanced ideation was frequently compressed during the production process, leaving only a narrowed portion of learner understanding visible through classroom performance. This compression may reflect asynchronous development, including the challenge of organizing highly complex ideas into

linear written form alongside age-typical handwriting, pacing expectations, written expression demands, or disability-related learning needs.

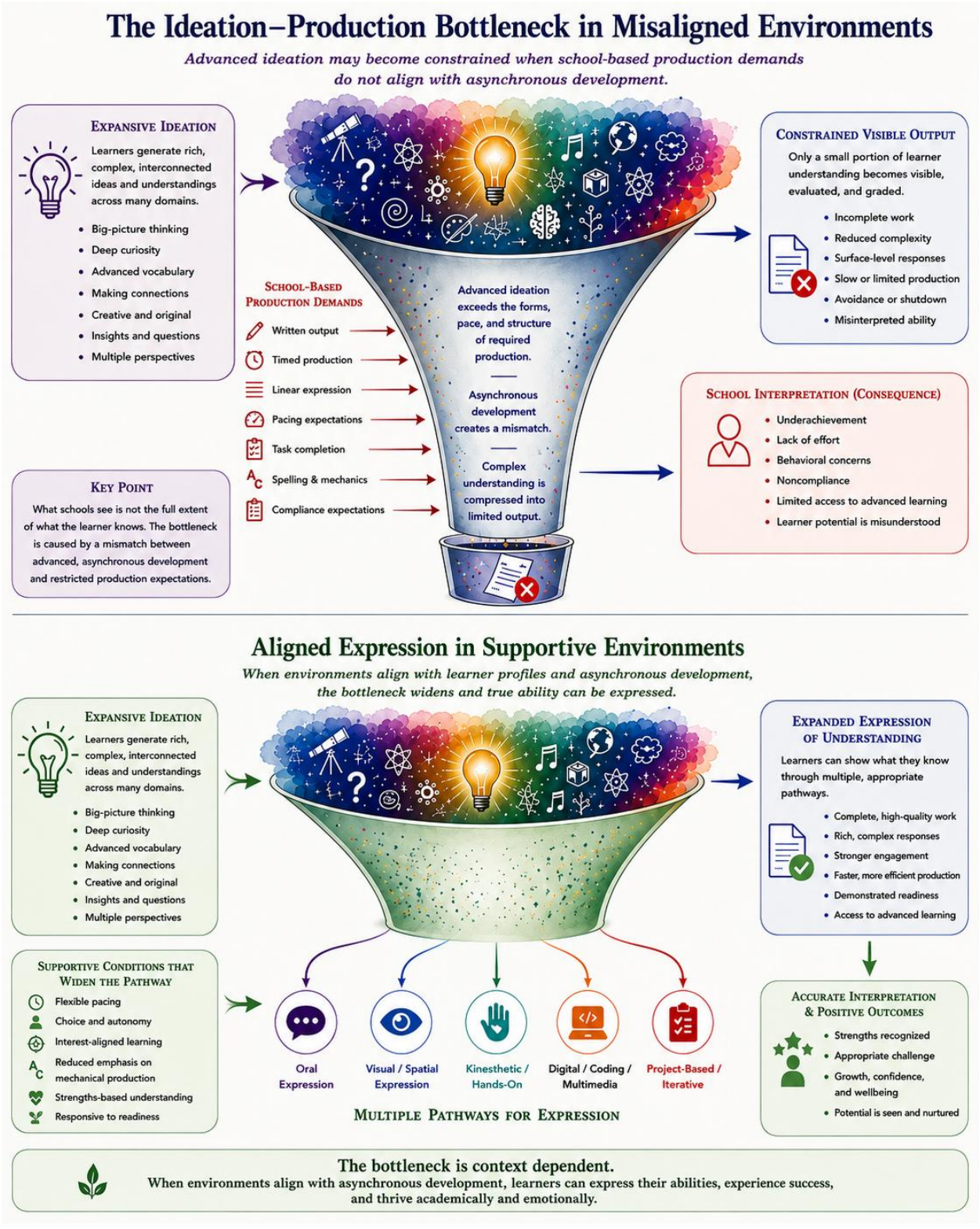
This model illustrates that these bottlenecks were often highly context-dependent rather than fixed indicators of learner capability. Several learners who struggled within conventional classroom production demands later demonstrated extensive writing, independent research, advanced coding, public speaking, or sophisticated project-based work in more aligned environments. One learner who earned only average classroom grades later became the lead author on a scientific journal publication and contributed to a patent application. These patterns suggest that grades, written assignments, and classroom productivity did not always fully reflect the complexity of learner understanding.

The Ideation–Production Bottleneck Model illustrates one mechanism through which multidomain educational misalignment may develop for HG/PG-2e learners. The model highlights how schools may underestimate learner readiness when educational response relies heavily on conventional production demands as indicators of functioning or ability. More broadly, the model suggests that educational environments may require greater flexibility in how advanced understanding is recognized, expressed, and evaluated across asynchronous learner profiles.

Figure 5.2 presents the Ideation–Production Bottleneck Model emerging from these participant experiences.

Figure 5.2

Ideation–Production Bottleneck Model for HG/PG-2e Learners


The Ideation–Production Bottleneck in Misaligned Environments
Advanced ideation may become constrained when school-based production demands do not align with asynchronous development.
Expansive Ideation
Learners generate rich, complex, interconnected ideas and understandings across many domains.
Big-picture thinking
Deep curiosity
Advanced vocabulary
Making connections
Creative and original
Insights and questions
Multiple perspectives
School-Based Production Demands
Written output
Timed production
Linear expression
Pacing expectations
Task completion
Spelling & mechanics
Compliance expectations
Advanced ideation exceeds the forms, pace, and structure of required production.
Asynchronous development creates a mismatch.
Complex understanding is compressed into limited output.
Constrained Visible Output
Only a small portion of learner understanding becomes visible, evaluated, and graded.
Incomplete work
Reduced complexity
Surface-level responses
Slow or limited production
Avoidance or shutdown
Misinterpreted ability
School Interpretation (Consequence)
Underachievement
Lack of effort
Behavioral concerns
Noncompliance
Limited access to advanced learning
Learner potential is misunderstood
Key Point
What schools see is not the full extent of what the learner knows. The bottleneck is caused by a mismatch between advanced, asynchronous development and restricted production expectations.
Aligned Expression in Supportive Environments
When environments align with learner profiles and asynchronous development, the bottleneck widens and true ability can be expressed.
Expansive Ideation
Learners generate rich, complex, interconnected ideas and understandings across many domains.
Big-picture thinking
Deep curiosity
Advanced vocabulary
Making connections
Creative and original
Insights and questions
Multiple perspectives
Supportive Conditions that Widen the Pathway
Flexible pacing
Choice and autonomy
Interest-aligned learning
Reduced emphasis on mechanical production
Strengths-based understanding
Responsive to readiness
Oral Expression
Visual / Spatial Expression
Kinesthetic / Hands-On
Digital / Coding / Multimedia
Project-Based / Iterative
Multiple Pathways for Expression
Expanded Expression of Understanding
Learners can show what they know through multiple, appropriate pathways.
Complete, high-quality work
Rich, complex responses
Stronger engagement
Faster, more efficient production
Demonstrated readiness
Access to advanced learning
Accurate Interpretation & Positive Outcomes
Strengths recognized
Appropriate challenge
Growth, confidence, and wellbeing
Potential is seen and nurtured
The bottleneck is context dependent.
When environments align with asynchronous development, learners can express their abilities, experience success, and thrive academically and emotionally.

Note. Researcher-developed conceptual model visually rendered with assistance from ChatGPT and DALL·E. All conceptual content, wording, and iterative revisions originated with, were reviewed by, and were revised by the researcher.

Parent-Led Educational Realignment Process

The Parent-Led Educational Realignment Process conceptualizes educational realignment as an iterative process initiated through parent recognition of multidomain environmental misalignment in their child's school setting. This process model illustrates how families frequently move through cycles of advocacy, supplementation, parallel learning beyond the school setting, educational decision-making, and eventual withdrawal while attempting to establish improved educational fit across the Five Environments. This model is important because it illustrates how educational realignment did not emerge passively or automatically within participant experiences. Instead, educational fit was frequently reconstructed through sustained parent involvement after schools did not effectively resolve ongoing multidomain misalignment.

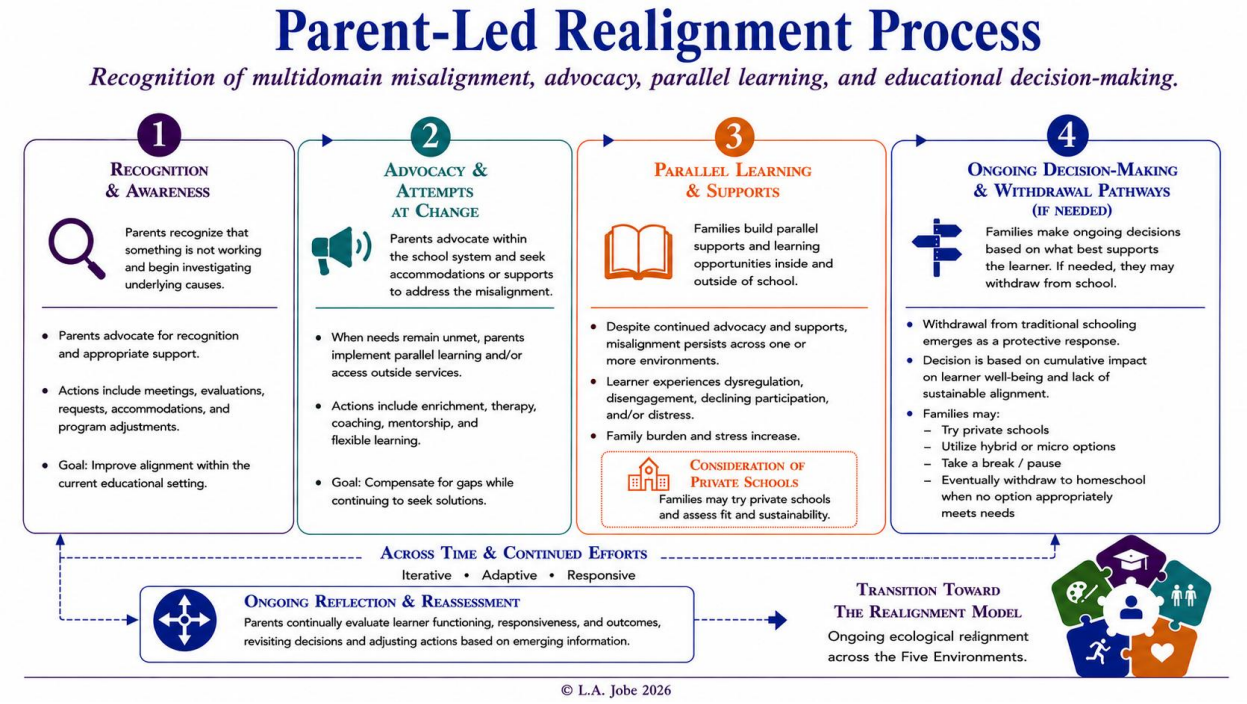
Existing literature has examined parent advocacy among families of gifted and 2e learners when educational environments fail to adequately respond to learner readiness or disability-related needs (Assouline et al., 2015; Jolly & Matthews, 2018). Participant experiences within the present study extended this literature by demonstrating how parent involvement frequently intensified when schools did not effectively respond to learner functioning across environments. Parents often begin by attempting collaborative problem-solving within existing school structures before gradually expanding advocacy efforts and developing learning

opportunities beyond the classroom in response to continued learner distress, underchallenge, disengagement, or school avoidance.

The Parent-Led Educational Realignment Model highlights the meaningful role parents played in shaping educational fit for HG/PG-2e learners throughout the educational decision-making process. Participant experiences repeatedly reflected that withdrawal was rarely immediate or impulsive. Instead, families described prolonged periods of reassessment, continued advocacy, and ongoing environmental modification before broader educational restructuring occurred. The model additionally illustrates that when school environments failed to sustain educational fit, parents frequently stepped in to construct alternative pathways when resources, flexibility, and circumstances allowed. Participant experiences therefore positioned parents as active coordinators of educational fit across the Five Environments when existing school structures could not adequately sustain alignment for HG/PG-2e learners. Figure 5.3 presents the Parent-Led Educational Realignment Process that emerged from these participants' experiences.

Figure 5.3

Parent-Led Realignment Process



Note. Researcher-developed conceptual model visually rendered with assistance from ChatGPT and DALL·E. All conceptual content, wording, and iterative revisions originated with, were reviewed by, and were revised by the researcher.

Realignment Model Based on Positive Niche Construction

Finally, the Realignment Model conceptualizes educational fit as an ongoing ecological interaction among learner functioning and responsiveness across the Five Environments for Growth (Armstrong, 2025; Baum & Schader, 2024). This model is important because it shifts educational fit beyond placement alone and instead conceptualizes alignment as dynamic, multidimensional, and continuously responsive to learner needs. Participant experiences repeatedly demonstrated that changes in alignment within academic/cognitive, social, emotional,

physical/sensory, and creative environments frequently influenced fit across other domains as well.

This model illustrates how educational realignment frequently emerged through forms of positive niche construction in which families actively reconstructed learning conditions through varying resources. Rather than relying upon a single educational structure to meet all learner needs, families frequently described building individualized learning pathways through flexible combinations of advanced coursework, mentorships, therapies, creative opportunities, online learning, independent study, extracurricular activities, and intellectual peer connection tailored to the learner's profile across domains.

The Realignment Model is important because it reframes educational fit as a dynamic process requiring continued responsiveness across development rather than a fixed outcome achieved through placement alone. Educational fit depends upon the capacity of educational environments to remain flexible, individualized, and responsive to asynchronous learner development across contexts. Although homeschooling provided the clearest examples of this flexibility within the present study, the implications of the Realignment Model extend beyond homeschool settings and point toward broader possibilities for multidomain educational responsiveness within a range of educational environments.

Figure 5.4 presents the Realignment Model emerging from these participant experiences.

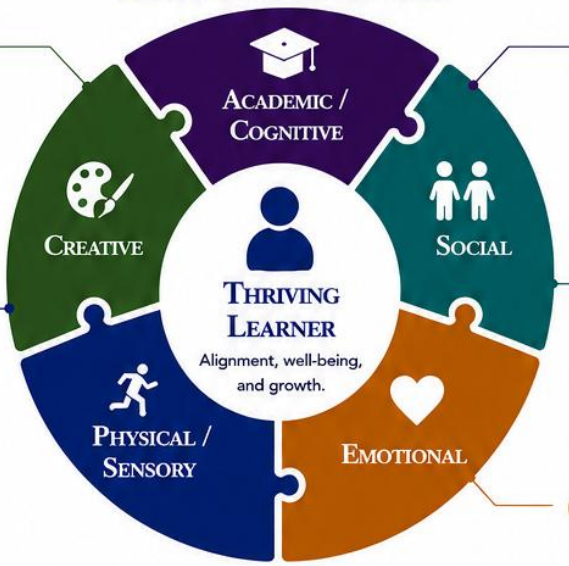
Figure 5.4

Realignment Model

The Realignment Model:

An Ecological Alignment Process Through Positive Niche Construction

Realignment emerges as a dynamic, ecological, iterative process across the Five Environments.



Creative

Expression, originality, curiosity, and sustained engagement in interests.

Academic / Cognitive

Advanced content, deep exploration, complex problem solving, and authentic assessment.

Physical / Sensory

Movement, sensory needs met, healthy routines, and reduced environmental stress.

Social

Connection with like-minded peers, belonging, and meaningful relationships.

Emotional

Safety, autonomy, regulation support, and emotional well-being.

Adaptation & Support Strategies may Include:

Home Education
Intentional, responsive learning at home with access to resources and community.

Community Learning
Classes, co-ops, small groups, and mentorship opportunities.

Co-ops & Microschools
Collaborative, small-scale learning environments.

Online & Virtual Learning
Digital resources, courses, and flexible learning models.

Nature & Place-Based Learning
Real-world, experiential, and nature-connected opportunities.

Therapeutic & Wellness Supports
Therapy, coaching, sensory supports, and holistic care.

Alignment, Safety, and well-being are prioritized within and across all Environments.
Families select and adjust supports that best meet the learner's evolving needs.

Ongoing, Iterative Process

Assess
Observe, listen, and gather information.

→ **Align**
Identify priorities and choose supports.

→ **Implement**
Put strategies into action across environments.

→ **Evaluate**
Monitor outcomes, well-being, and progress.

→ **Adjust**
Adapt strategies as needs and contexts change.

Families may continue to move into different Learning Environments while searching for Full Alignment.

They may prioritize certain environments or supports at any given time.

Public Schools
Traditional, magnet, charter, or district programs.

Private Schools
Independent or faith-based environments.

Parent-Facilitated Learning Opportunities Under the Homeschool Structure
Learning at home, in the community, or at other locations.

Microschools
Small, independent learning communities tailored to learners.

Online / Virtual
Fully online or blended learning models.

Other Placements
Hybrid models, co-ops, learning pods, and custom arrangements.

The Realignment Model supports families in navigating misalignment, making decisions, and creating conditions for the learner to thrive, experience well-being, and reach their full potential.

Together, these four major factors and three explanatory models offer a conceptual explanation for how HG/PG-2e learners and their families moved from prolonged multidomain educational misalignment toward improved educational fit. Educational fit emerged as a dynamic and ongoing process shaped by learner needs, environmental responsiveness, systemic constraints, and parent-led efforts to create alignment across the five environments. These interacting processes ultimately gave rise to the Educational Fit Alignment Framework, introduced in the following section.

The Birth of The Educational Fit Alignment Framework

Collectively, these factors and explanatory models give rise to the Educational Fit Alignment Framework. This framework conceptualizes educational fit for HG/PG-2e learners as an ongoing ecological interaction between learner functioning and environmental responsiveness across the Five Environments. Participant experiences repeatedly demonstrated that asynchronous development did not unfold uniformly across domains and could not be adequately supported through standardized educational structures emphasizing age-based pacing, uniform production expectations, or static educational placement alone. Figure 5.5 illustrates the Educational Fit Alignment Framework.

Figure 5.5

Educational Fit Alignment Framework


The Educational Fit Alignment Framework
A Process of Ongoing Alignment Across the Five Environments
1 Multidimensional Misalignment
Learner needs, strengths, and contexts are misaligned across the Five Environments.
Academic/ Cognitive
Creative
Social
Learner
Physical/ Sensory
Emotional
Misalignment in one area affects others—often resulting in what teachers observe, not the underlying issue.
System Constraints & Misrecognition
Standardization
Time structures
One-size-fits-most
Resource limitations
Institutional rigidity
Bottleneck (Compression)
Asynchronous development is compressed by school-based production demands.
Lack of Recognition
Learner strengths, needs, and ways of learning are often overlooked or misunderstood.
2 System Constraints & Misrecognition
School systems often compress learner development through structural constraints and misrecognition.
Persistent misalignment continues.
3 Parent–Led Realignment Process — Across Time & Continued Efforts
As school settings fail to respond appropriately, parents lead the process of realignment.
Iterative • Adaptive • Responsive
Recognition & Advocacy
Parents recognize that something is not working and begin investigating underlying causes.
Parents advocate within the school system and seek accommodations or supports to address the misalignment.
Parallel Learning & Support
Families build parallel supports and learning opportunities inside and outside of school.
Consideration of Private Schools
Families may try private school as an alternative for fit and sustainability.
Ongoing Decision-Making & Withdrawal (If Needed)
Families make ongoing decisions based on what best supports the learner. If needed, they may withdraw from school.
Withdrawal Pathways
Try private schools
Utilize hybrid or micro options
Take a break / pause
Eventually withdraw to homeschool when no other pathways meet their learner's needs
4 Realignment Model Based on Positive Niche Construction
Realignment emerges as a dynamic, ecological, iterative process across the Five Environments.
Alignment, fit, and flourishing emerge through ongoing adaptation across contexts and time.
A protective response that prioritizes alignment, safety, and wellbeing.
Three Explanatory Models within the Framework
Ideation–Production Bottleneck Model
Explains how asynchronous learner development is compressed by school-based production demands, creating misalignment.
Parent–Led Realignment Process
Explains the iterative process families use to navigate misalignment, make decisions, and adjust across contexts and environments.
Realignment Model Based on Positive Niche Construction
Explains educational realignment as a dynamic, ecological, iterative process across the Five Environments that leads to alignment, fit, and flourishing.

Note. Researcher-developed conceptual model visually rendered with assistance from ChatGPT and DALL·E. All conceptual content, wording, and iterative revisions originated with, were reviewed by, and were revised by the researcher.

Educational realignment emerged through individualized reconstruction of learning conditions across environments. Families described dynamically sourcing academic challenge, intellectual peer connection, mentorship, sensory responsiveness, autonomy, therapeutic support, creative opportunity, and self-directed inquiry through multiple educational resources tailored to the learner's highly uneven developmental profile. Educational fit emerged as an iterative process of alignment requiring ongoing responsiveness to learner readiness, regulation, intensity, social belonging, and expression of understanding across development. Several families considered or even enrolled in private schools between public school withdrawal and homeschooling, eventually transitioning to homeschooling when no other available school setting offered necessary realignment. A few families moved between homeschooling and other school placements several times in this process. One of the families in this study also transitioned back to a public high school International Baccalaureate program. At the same time, that parent still described a continued lack of alignment in several aspects, which reflects the prioritization in aligned environments that many families expressed when they had not found a way to match all of their children's needs in one placement alone.

Although these processes were most visible through homeschooling within the present study, the Educational Fit Alignment Framework extends beyond homeschool settings specifically. The framework suggests that educational fit for HG/PG-2e learners may depend less upon a single placement model and more upon the ability of educational environments to flexibly

respond to asynchronous development across the Five Environments. Within classroom settings, this may include greater flexibility in pacing, broader opportunities for advanced conceptual engagement, including multi-year full grade and subject acceleration, varied forms of demonstrating understanding, responsive sensory conditions, and increased recognition that learner functioning may appear differently across environments. Ultimately, the Educational Fit Alignment Framework offers a conceptual lens for understanding how educational environments may move beyond static placement models toward more responsive and developmentally aligned educational pathways for HG/PG-2e learners.

Implications

Implications for Educational Fit

The Educational Fit Alignment Framework suggests the importance of approaching educational fit for HG/PG-2e learners as a multidimensional and responsive process rather than a fixed placement decision. Parents consistently described increased engagement, regulation, and expression of advanced understanding when learners had access to appropriately challenging material, flexibility in pacing, opportunities for self-directed exploration, and learning environments aligned with their patterns of development across the five environments. These findings suggest that access to intellectual challenge, creativity, flexibility, and meaningful engagement should be understood as central components of educational fit for HG/PG-2e learners.

This new framework additionally suggests the importance of expanding how schools recognize and respond to advanced ability. Participant experiences repeatedly demonstrated that advanced understanding was not always reflected through conventional forms of production,

particularly within environments emphasizing directed written output or compliance-based evaluation. Broader approaches to assessment and instructional response, including open-ended inquiry, advanced problem solving, oral discussion, alternative demonstrations of understanding, and flexible pathways for acceleration, may allow for more accurate recognition of learner readiness and cognitive complexity.

The Educational Fit Alignment Framework further suggests that educational responsiveness may require greater flexibility across educational systems. Increased access to subject acceleration and multi-grade acceleration, dual enrollment, hybrid learning structures, advanced coursework, and individualized pacing may support stronger alignment between learner readiness and educational opportunity. Findings additionally suggest value in developing more permeable boundaries between homeschool and traditional school contexts through expanded access to district courses, extracurricular participation, College Board assessments, and collaborative educational partnerships.

Implications for Equity, Access, and Family Partnership

These study findings suggest that access to appropriate educational fit often depended upon parent advocacy, knowledge, time, and financial resources. Many families described prolonged efforts to work within existing school structures prior to withdrawal, including communication with teachers, volunteering, supplementation outside school, assessment requests, and advocacy for accommodations or acceleration. These findings suggest the importance of developing more accessible and responsive pathways within public education so that appropriate educational fit does not depend primarily upon a family's ability to independently construct alternatives.

The Educational Fit Alignment Framework also highlights the important role parents may play in recognizing patterns of multidomain misalignment and contributing meaningful insight regarding learner needs across settings. Parents frequently described becoming central participants in educational decision-making, environmental modification, and ongoing alignment efforts. More collaborative partnerships between families and schools may support earlier intervention and stronger educational alignment before withdrawal becomes necessary.

Finally, the findings suggest the importance of increased awareness and professional understanding of HG/PG-2e learner profiles within educational systems. Greater integration between gifted education, twice-exceptional support, and multidomain approaches to educational fit may help schools move toward more flexible, individualized, and responsive educational environments capable of supporting a broader range of advanced learners.

Recommendations for Future Research

Further research is needed to examine how recognition of ability is shaped by constraints on expression across educational contexts. The findings suggest that advanced understanding may not be fully visible when evaluation relies on limited forms of output. Additional research is needed to examine how policies related to acceleration, dual enrollment, and access to advanced coursework are implemented in practice, including barriers related to age, school requirements, and barriers for homeschool learners.

Additionally, future research should also examine and empirically test the conceptual framework and explanatory models developed in this study, including the process of environmental misfit, parent advocacy, and parallel learning, withdrawal as an adaptive

response, and subsequent realignment through Positive Niche Construction across the Five Environments for Growth. While the Educational Fit Alignment Framework and three models conceptualized in this study, the Ideation-Production Bottleneck Model, Parent-Led Realignment Process, and Educational Realignment Model, are grounded in cross-case analysis, they require further validation across broader and more diverse populations of learners, including those who remain in traditional school settings as well as those who transition across multiple educational contexts.

In particular, future studies should investigate the extent to which the sequence identified in this study functions as a generalizable process rather than a context-specific pattern. This includes examining whether environmental misfit consistently precedes increased parent advocacy and parallel learning, how long these parallel systems are sustained, and what conditions contribute to withdrawal decisions versus continued attempts at in-system adaptation. Research should also examine whether withdrawal operates as an adaptive response across settings and learner profiles, and under what conditions it leads to improved alignment across academic, social, emotional, physical, sensory, and creative domains.

Further research is needed to examine Positive Niche Construction as an ongoing and dynamic process rather than a fixed outcome. This includes studying how families iteratively design and redesign learning environments, how access to resources and institutional flexibility influences this process, and how learners themselves increasingly participate in constructing their own educational pathways over time. Longitudinal studies would be especially valuable in examining how alignment shifts across developmental stages and how earlier decisions shape later educational and professional trajectories.

Finally, additional research is needed to examine how schools and other educational stakeholders can facilitate educational realignment within existing educational settings. Future studies should investigate the policies, practices, and environmental conditions that support alignment across the academic/cognitive, social, emotional, physical/sensory, and creative environments, reducing reliance on parent-led realignment efforts and expanding access to educational fit for a broader range of learners.

Together, this line of research has the potential to refine, extend, and validate the models proposed in this study, while contributing to a more nuanced and actionable understanding of educational fit for HG/PG and HG/PG-2e learners across settings.

Conclusion

This dissertation examined the educational experiences of HG/PG-2e learners who participated in both public school and homeschool settings through two research questions focused on educational fit across the Five Environments for Growth and the role of parents in advocacy, decision-making, and educational withdrawal processes. Using Bingham's (2023) five-stage deductive and inductive analytic process, Baum and Schader's (2024) Five Environments for Growth served as the study's framework, with interpretations informed through the lens of Armstrong's (2025) conceptual interpretation of Positive Niche Construction.

Conceptual synthesis of themes resulted in four major findings that collectively gave rise to the introduction of the Education Fit Alignment Framework. The findings demonstrated that educational fit for HG/PG-2e learners did not emerge as a static placement outcome, but as a dynamic ecological interaction between learner functioning and environmental conditions across

academic/cognitive, social, emotional, physical/sensory, and creative domains of experience. Participant experiences repeatedly reflected how multidomain educational misalignment contributed to dysregulation, disengagement, constrained expression of ability, ideation–production bottlenecks, and eventual withdrawal from traditional school settings when alignment could not be sustained.

Three explanatory models further clarified these processes. First, the Ideation–Production Bottleneck Model demonstrated how advanced understanding may become obscured when schools rely heavily on conventional forms of production to interpret learner ability and readiness. Next, the Parent-Led Realignment Process described how families recognized multidomain misalignment, engaged in advocacy, developed parallel learning opportunities, and navigated educational decision-making during prolonged mismatch. Finally, the Realignment Model conceptualized educational fit as an ongoing process of alignment across the five environments, illustrating how greater environmental responsiveness supported engagement, regulation, social belonging, creativity, talent development, and expression of understanding.

Although these processes were most visibly reflected through homeschooling within participant experiences, the findings suggested broader implications extending beyond homeschool settings. Educational fit for HG/PG-2e learners appeared to depend less upon a single placement decision and more upon the capacity of educational environments to remain flexible, individualized, and responsive to asynchronous development across contexts. Participant experiences further suggested that educational responsiveness may require schools to move beyond narrowly standardized interpretations of identification, readiness, performance,

regulation, and achievement toward more multidimensional understandings of learner functioning and development.

Parent reflections underscored the sustained effort frequently required to navigate these processes within existing educational systems, particularly when learner needs remained poorly understood or insufficiently supported. At the same time, participant experiences also demonstrated the substantial changes that became possible when educational conditions were more closely aligned with learner readiness, strengths, interests, regulation, sensory functioning, creativity, and patterns of development. Learners who previously demonstrated chronic overwhelm, disengagement, school avoidance, limited production, or constrained expression of ability frequently showed increased curiosity, engagement, confidence, creativity, independence, sustained inquiry, and willingness to participate in learning once more aligned educational conditions were established.

Ultimately, the findings of this study suggest the need for more flexible, responsive, and multidimensional approaches to educational fit for HG/PG-2e learners across educational contexts. More importantly, the findings also suggest that learners in misaligned educational contexts are not inherently disengaged, unmotivated, or incapable of great success. Participant experiences repeatedly demonstrated that when educational environments became more responsive to asynchronous development and multidomain learner functioning, substantial shifts in engagement, expression, regulation, and talent development often followed. The findings of this study, therefore, point toward hopeful possibilities for educational systems, educators, and families willing to collaboratively construct environments in which HG/PG-2e learners are

recognized not only for their challenges, but for the depth, intensity, creativity, and potential they bring to the learning process.

References

A Survey about Students' and Families' Experience with Their Schools and Homeschooling. (2022). *Part of the 2023 National Household Education Survey.* U.S. Department of Education, National Center for Education Statistics. https://nces.ed.gov/nhes/pdf/pfi/2023_pfi.pdf

Ahmad, M., & Wilkins, S. (2024). Purposive sampling in qualitative research: A framework for the entire journey. *Quality & Quantity,* 1–19.

Alshamsi, A. (2024). Conceptions of intelligence, giftedness, and talent over time. *Sino-US English Teaching,* 21(12), 559–565.

Armstrong, T. (2010). Neurodiversity: Discovering the extraordinary gifts of autism, ADHD, dyslexia, and other brain differences. ReadHowYouWant.com.

Armstrong, T. (2011). *The power of neurodiversity: Unleashing the advantages of your differently wired brain.* Balance.

Armstrong, T. (2025). *The power of neurodiversity: Unleashing the advantages of your neurodivergent brain* (2nd ed.). Balance.

Assouline, S. G., & Whiteman, C. S. (2011). Twice exceptionality: Implications for school psychologists in the post–IDEA 2004 era. *Journal of Applied School Psychology,* 27(4), 380–402.

Baum, S., & Olenchak, R. (2022). Twice-exceptional students: Ameliorating an educational dilemma. In *Creating equitable services for the gifted: Protocols for identification, implementation, and evaluation* (pp. 20–38). IGI Global Scientific Publishing.

Baum, S. M., Renzulli, S., & Jobe, L. A. (2026). The twice-exceptional adolescents: Who are they? What do they need? In *The handbook of secondary gifted education* (pp. 155–184). Routledge.

Baum, S. M., & Schader, R. M. (2024). *Suite of Tools™ level one training workbook* [Training workbook]. Bridges Graduate School of Cognitive Diversity in Education.

Baum, S. M., Schader, R. M., & Owen, S. V. (2021). *To be gifted and learning disabled: Strength-based strategies for helping twice-exceptional students with LD, ADHD, ASD, and more.* Routledge

Becker, A. B. C., Maurer, J., Daseking, M., & Pauls, F. (2024). Measurement invariance of the WISC-V across a clinical sample of children and adolescents with ADHD and a matched control group. *Journal of Intelligence,* 12(1), Article 6. https://doi.org/10.3390/jintelligence1201000

Bingham, A. J. (2023). *From data management to actionable findings: A five-phase process of qualitative data analysis*. Routledge.

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health,* 11(4), 589–597.

California Department of Education. (2025, September 3). *Schooling at home.* https://www.cde.ca.gov/sp/ps/homeschool.asp

Coalition for Responsible Home Education. (n.d.). *Homeschool umbrella schools.* In *Homeschool options.* Retrieved July 2025, from https://responsiblehomeschooling.org

Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). Wiley.

Columbus Group. (1991, July). *Unpublished definition of giftedness*. Columbus, OH.

Connolly-Sporing, A., Cody, R. A., & Plucker, J. A. (2024). Gifted students learning in homeschool settings: Research and policy recommendations. *Journal of School Choice,* 18(4), 638–652. https://doi.org/10.1080/15582159.2024.2422246

Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Sage.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.

Davidson Institute. (2023). *Davidson Young Scholars: Eligibility & criteria*. https://www.davidsongifted.org/gifted-programs/young-scholars/admissions/eligibility-and-testing

Davidson Institute. (2025, August 18). *Programs & support for the profoundly gifted.* https://davidsongifted.org

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* Plenum.

De Wit, J., & Wood, S. (2025). *Highly and profoundly gifted children: Insights and perspectives*. Routledge.

Duvall, S. (2021). A research note: Number of adults who homeschool children growing rapidly. *Journal of School Choice,* 15(2), 215–224. https://doi.org/10.1080/15582159.2021.1912563

Feldman, H. (2019). How young children learn language and speech. *Pediatrics in Review,* 40(8), 398–411.

Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). Sage.

Foley-Nicpon, M., Assouline, S. G., & Colangelo, N. (2013). Twice-exceptional learners: Who needs to know what? *Gifted Child Quarterly, 57*(3), 169–180. https://doi.org/10.1177/0016986213490021

Gross, M. U. (2000). Exceptionally and profoundly gifted students: An underserved population. *Understanding Our Gifted,* 12(2), 3–9.

Gross, M. U. M. (2004). *Exceptionally gifted children* (2nd ed.). Routledge. https://doi.org/10.4324/9780203561553

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? *Field Methods,* 18(1), 59–82.

Gunawardena, M., Bishop, P., & Aviruppola, K. (2024). Personalized learning: The simple, the complicated, the complex, and the chaotic. *Teaching and Teacher Education,* 139, 104429.

Haase, J. L., & Hancock, L. (2022). The social-emotional impact of living 2E: It's not just a school thing. In *Springer eBooks* (pp. 155–170). https://doi.org/10.1007/978-3-031-10378-0_11

Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2017). Code saturation versus meaning saturation. *Qualitative Health Research,* 27(4), 591–608.

Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).

JHU School of Education. (2024, October 16). *Homeschool growth: 2023–2024.* Institute for Education Policy. https://education.jhu.edu/edpolicy/policy-research-initiatives/homeschool-hub/homeschool-growth-2023-2024

Jobe, L. (2024, November 23). *Navigating educational options: Why gifted/2e families frequently change schools* [Conference presentation]. NAGC 2024 Convention, Seattle, WA, United States.

Johnson, K. (2024). Educational fit and profoundly gifted learners in age-based classrooms. *Roeper Review, 46*(2), 95–108.

Jolly, J. L., Matthews, M. S., & Nester, J. (2013). Homeschooling the gifted: A parent's perspective. Gifted Child Quarterly, 57(2), 121–134. https://doi.org/10.1177/0016986212469999

Jolly, J. L., & Matthews, M. S. (2017). Why we blog: Homeschooling mothers of gifted children. Roeper Review, 39(2), 112–120. https://doi.org/10.1080/02783193.2017.1289579

Jolly, J. L., & Matthews, M. S. (2018). The chronicles of homeschooling gifted learners. Journal of School Choice, 12(1), 123–145. https://doi.org/10.1080/15582159.2017.1354644

Jolly, J. L., & Matthews, M. S. (2020). The shifting landscape of the homeschooling continuum. Educational Review, 72(3), 269–280. https://doi.org/10.1080/00131911.2018.1552661

Kearney, K. (1996). *Highly gifted children in full inclusion classrooms* (ED425575). ERIC. https://files.eric.ed.gov/fulltext/ED425575.pdf

King, S. (2022). The education context for twice-exceptional students: An overview of issues in special and gifted education. *Neurobiology of Learning and Memory,* 193, 107659. https://doi.org/10.1016/j.nlm.2022.107659

Kingsbury, I. (2021). Online learning: How do brick-and-mortar schools stack up to virtual schools? *Education and Information Technologies,* 26(6), 6567–6588. https://doi.org/10.1007/s10639-021-10450-1

Kula, S. (2018). Homeschooling gifted students: Considerations for research and practice. In *Curriculum development for gifted education programs* (pp. 151–171). IGI Global Scientific Publishing.

Lakens, D. (2022). Sample size justification. *Collabra: Psychology,* 8(1), 33267. https://doi.org/10.1525/collabra.33267

Lee, L. J. (2016). Cutting class: Experiences of gifted adolescents who switched to homeschooling. *Home School Researcher, 32*(3). https://nheri.org/home-school-researcher-cutting-class-experiences-of-gifted-adolescents-who-switched-to-homeschooling/

Lee, S. Y., Olszewski-Kubilius, P., & Thomson, D. (2021). Creativity and classroom environments in gifted education. *Gifted Child Quarterly, 65*(3), 201–216. https://doi.org/10.1177/00169862211012345

Lenhard, A., & Daseking, M. (2022). Accounting for intraindividual profiles in the Wechsler Intelligence Scales improves the prediction of school performance. *Children,* 9(11), 1635. https://doi.org/10.3390/children9111635

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* Sage.

Lovecky, D. V. (1994). Exceptionally gifted children: Different minds. *Roeper Review,* 17, 116–120.

Maddocks, D. L. S. (2018). Cognitive and achievement profiles in students with twice-exceptionality. *Gifted Child Quarterly, 62*(1), 37–51. https://doi.org/10.1177/0016986217738057

Marland, S. P., Jr. (1972). *Education of the gifted and talented: Report to the Congress of the United States by the U.S. Commissioner of Education*. U.S. Government Printing Office.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Mullen, C. A., & Bartlett, T. C. (2022). Charter movement controversy: An American public charter school case study. *Education Inquiry,* 15(3), 367–384. https://doi.org/10.1080/20004508.2022.2112420

National Association of Gifted Children. (n.d.). *Frequently asked questions about gifted education.* Retrieved July 1, 2025, from https://nagc.org/page/frequently-asked-questions-about-gifted-education

National Center for Education Statistics. (2014). *NCES statistical standards* (NCES 2014-097). U.S. Department of Education, Institute of Education Sciences. https://nces.ed.gov/statprog/standards.asp

National Center for Education Statistics. (2018). *National Household Education Surveys Program of 2016: Data file user's manual* (NCES 2018-100). U.S. Department of Education, National Center for Education Statistics. https://nces.ed.gov/pubs2018/2018100.pdf

National Center for Education Statistics. (2021). *National Household Education Surveys Program of 2019: Data file user's manual* (NCES 2021-030). U.S. Department of Education, National Center for Education Statistics. https://nces.ed.gov/pubs2021/2021030.pdf

National Center for Education Statistics. (2023, September). *2019 homeschooling and full-time virtual education rates* (NCES 2023-101). U.S. Department of Education, Institute of Education Sciences. https://nces.ed.gov/pubs2023/2023101.pdf

National Center for Education Statistics. (2025). *Fast facts: Homeschooling.* U.S. Department of Education, Institute of Education Sciences. https://nces.ed.gov/fastfacts/display.asp?id=9

National Center for Education Statistics. (n.d.). *National Household Education Surveys Program (NHES): Access NHES public use data through direct downloads.* https://nces.ed.gov/nhes/dataproducts.asp

National Conference of State Legislatures. (2023, June 28). *Four-day school week overview.* https://www.ncsl.org/education/four-day-school-week-overview

Ohls, S., Covelli, L., & Schweig, J. (2025). *Microschools as an emerging education model: Implications for research and evaluation* (Research Report RR-A3698-1). RAND Corporation.

Onwuegbuzie, A. J., & Collins, K. M. T. (2007). A typology of mixed-methods sampling designs in social science research. *The Qualitative Report,* 12(2), 281–316.

Papadopoulos, D. (2020). Psychological framework for gifted children's cognitive and socio-emotional development: A review of the research literature and implications. *Journal for the Education of Gifted Young Scientists,* 8(1), 305–323. https://doi.org/10.17478/jegys.666308

Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Sage.

Peters, S. J. (2022). The challenges of achieving equity within public school gifted and talented programs. *Gifted Child Quarterly, 66*(2), 82–94. https://doi.org/10.1177/00169862211002535

Raiford, S. E., Holdnack, J. A., Drozdick, L. W., & Weiss, L. G. (2015). *WISC–V assessment and interpretation: Scientist-practitioner perspectives*. Academic Press.

Reis, S. M., Baum, S., & Burke, E. (2014). An operational definition of twice-exceptional learners: Implications and applications. *Gifted Child Quarterly,* 58(3), 217–230. https://doi.org/10.1177/0016986214534976

Reis, S. M., Madaus, J., Gelbar, N., & Baum, S. (2025). *Strength-based pedagogy for smart students with disabilities: Using interest-based strategies for academic and personal success.* Taylor & Francis.

Reis, S. M., & McCoach, D. B. (2000). The underachievement of gifted students: What do we know and where do we go? *Gifted Child Quarterly, 44*(3), 152–170. https://doi.org/10.1177/001698620004400302

Rubin, S. C., & Sanford, C. (2021). *Pathways to personalization: A framework for school change.* Harvard Education Press.

Ryan, R. M., & Deci, E. L. (2020). *Self-determination theory: Basic psychological needs in motivation, development, and wellness.* Guilford Press.

Scafidi, B. (2025). *The enrollment decline windfall: Enrollment declines leave more resources for students remaining in public schools.* EdChoice. https://www.edchoice.org/wp-content/uploads/2025/02/2025-The-Enrollment-Decline-Windfall.pdf

Schultz, R. A. (2018). Recognizing the outliers: Behaviors and tendencies of the profoundly gifted learner in mixed-ability classrooms. *Roeper Review,* 40(3), 191–196. https://doi.org/10.1080/02783193.2018.1469068

Sempeles, E., & Cui, J. (2024). *Parent and family involvement in education: 2023* (NCES 2024-113). U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2024113

Shemshack, A., & Spector, J. M. (2020). A systematic literature review of personalized learning terms. *Smart Learning Environments,* 7(1), 33.

Silverman, L. K. (1997). The construct of asynchronous development. *Peabody Journal of Education,* 72(3–4), 36–58.

Speirs Neumeister, K. L. (2023). Maximizing the potential of twice-exceptional learners: Creating a framework of stakeholder supports. *Gifted Child Quarterly, 68*(1), 19–33. https://doi.org/10.1177/00169862231193699

Teachers College Institutional Review Board. (2022). *Institutional Review Board* [Web page]. Teachers College, Columbia University. https://www.tc.columbia.edu/institutional-review-board/

Ting, H., Memon, M. A., Ramayah, T., & Cheah, J.-H. (2025). Snowball sampling: A review and guidelines for survey research. *Asian Journal of Business Research,* 15(1), 1–15. https://doi.org/10.14707/ajbr.2025.1341

U.S. Department of Education, NCES. (2022). *A Survey about Students' and Families' Experience with Their Schools and Homeschooling*. In *Parent and Family Involvement in Education (PFI), 2023* instrument documentation.

Wechsler, D. (2012). *Wechsler preschool and primary scale of intelligence—Fourth edition (WPPSI–IV)*. Pearson.

Wechsler, D. (2014). *Wechsler intelligence scale for children—Fifth edition (WISC–V)*. Pearson.

Weiss, L. G., Saklofske, D. H., Holdnack, J. A., & Prifitera, A. (2016). *WISC–V assessment and interpretation: Scientist-practitioner perspectives*. Academic Press.

Wilson, A. C. (2024). Cognitive profile in autism and ADHD: A meta-analysis of performance on the WAIS-IV and WISC-V. *Archives of Clinical Neuropsychology,* 39(4), 498–515. https://doi.org/10.1093/arclin/acad073

Wood, V. R. (2024). Prevalence of emotional, intellectual, imaginational, psychomotor, and sensual overexcitabilities among highly-profoundly gifted children (A mixed-methods study). *Education Sciences,* 14(8), Article 817. https://doi.org/10.3390/educsci14080817

Wood, S., & Laycraft, D. T. (2020). Understanding the profoundly gifted learner: Profiles, needs, and educational considerations. *Gifted Child Today, 43*(4), 233–244.

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage.

Young, N. (2023). *Young gifted students in the homeschool setting: How parents support their child's learning needs* [Doctoral dissertation, Bridges Graduate School of Cognitive Diversity]. https://bgs.edu/wp-content/uploads/2024/08/Young-Gifted-Students-in-the-Homeschool-Setting_Nancy-Young-06_2023.pdf

Yssel, N., Speirs Neumeister, K. L., & Burney, V. H. (2020, October 27). Students with special needs who are gifted and talented (twice exceptional). *Oxford Research Encyclopedia of Education.* Oxford University Press. https://doi.org/10.1093/acrefore/9780190264093.013.1234

Appendix A: Screening Survey Questions (Quantitative)

Thank you for your interest in this research study about the educational experiences of highly/profoundly gifted learners with documented learning differences (HG/PG-2e) who have left traditional public school to homeschool. This doctoral research study examines how HG/PG-2e learners' academic, social, emotional, creative, and motivational needs are supported across these different educational environments. The goal of this research is to better understand these experiences so that future gifted education practices and policies.
This dissertation study is being conducted by Lisa Jobe, Doctoral Candidate at Bridges Graduate School of Cognitive Diversity. Dr. Susan Baum is the Committee Chair of this dissertation. All protocols have been IRB-approved.

Once eligibility is confirmed, participants will take part in a voluntary Zoom interview with the researcher, Lisa Jobe, that will last approximately 60-90 minutes.

Directions:
Please complete this initial "eligibility screening" to determine whether your family's educational profile fits this particular study.

If you are eligible to participate in this study, the researcher will email you with a) further details about the study and participants' rights and protections; and b) the consent form. You may then elect to participate in the research by returning the signed consent form to the researcher, Lisa Jobe, at lisa.jobe@bgs.edu.
Your voluntary responses will remain confidential and will be used only to determine eligibility for participation. This short screener takes approximately five minutes to complete. You may opt out at any time.

Section 1: Confirm Eligibility

1. Are you the parent or legal guardian of a current or former K–12 learner in the United States?
   □ Yes
   □ No (If no, the screener will end.)

2. Has your learner experienced both of the following U.S. educational environments for at least one semester each? (Both required)
   □ Traditional public school
   a. How long has your learner been in traditional public education?

   □ Homeschooling

   b. How long has your learner been in homeschooling?

(If one or both are not selected, the screener will end.)

3. Has your learner been assessed using an individually-administered Wechsler intelligence test (WISC-V, WISC-IV, or WPPSI-IV), **or** has your learner been accepted into Davidson Young Scholars (DYS)?

Only Wechsler assessments (or verified DYS acceptance) are accepted to ensure standardized and comparable measurement of profound giftedness.

□ Yes
□ No (If no, the screener will end.)

6. Does your learner meet one of the following scores or program eligibility criteria? (Select one)

□ WISC-V: Standard score of 145 or higher on one of the following broad composites:

Full Scale IQ (FSIQ)

General Ability Index (GAI)

Expanded GAI (EGAI)

Nonverbal Index (NVI)

Verbal Expanded Crystallized Index (VECI)

Expanded Fluid Index (EFI); OR

□ WISC-V: Standard score of 145 or higher on two of the following index scores:

Verbal Comprehension Index (VCI)

Visual Spatial Index (VSI)

Fluid Reasoning Index (FRI)

Quantitative Reasoning Index (QRI)

Working Memory Index (WMI);

□ WISC-IV: Standard score of 145 or higher on FSIQ or GAI; OR

□ WPPSI-IV: Standard score of 145 or higher on FSIQ or GAI; OR

□ Davidson Young Scholars (DYS) acceptance, which requires documentation of profoundly gifted eligibility through Wechsler scores.

5. Has your learner received at least one formally diagnosed disability from a licensed professional or school team?
   □ Yes
   □ No (If no, the screener will end.)

6. Please indicate which documentation is available. (Select all that apply)
   □ Diagnostic evaluation report from a licensed clinician
   □ Active or former Individualized Education Program (IEP)
   □ Active or former Section 504 Plan
   □ School multidisciplinary evaluation documenting disability
   □ Other (please specify): _____

7. Which disability category or categories apply? (Select all that apply)
   □ Autism Spectrum Disorder
   □ Attention-Deficit/Hyperactivity Disorder or Executive Functioning Disorder
   □ Anxiety disorder, Obsessive-Compulsive Disorder, or other emotional disability
   □ Dyslexia, Dysgraphia, or Dyscalculia
   □ Auditory Processing Disorder (APD)
   □ Cerebral Visual Impairment (CVI) or other visual impairment
   □ Motor Coordination Disorder or Developmental Coordination Disorder (DCD)
   □ Other (brief description): _____

Documentation Upload (Required for Eligibility Verification)

8. Please upload one Wechsler results page (WISC-V, WISC-IV, or WPPSI-IV) that includes qualifying composite and/or index scores OR one DYS acceptance confirmation (confirmation can be obtained via this link.)
   (Upload field)

9. Please upload one (or more) page(s) of a school, clinical, or other evaluative report that identifies your child's learning disability diagnosis/diagnoses.
   (Upload field)

   IRB Data Security Statement: Uploaded documents are used to verify eligibility.

   Participants may redact addresses and school-identifying information before upload. All

uploaded materials will be stored in a secure password-protected digital location and encrypted in transit through Google's secure HTTPS protocol. Following completion of the study, any personally identifying information not already redacted will be permanently removed, and only de-identified eligibility attributes (e.g., qualifying assessment classification or documented disability category) will be retained in a coded dataset linked to participant pseudonyms. All de-identified retained data will be used solely to support analysis and audit trail requirements and will be permanently destroyed at the conclusion of the study.

Section 2: Demographic Information

The following optional questions help the researcher better understand the diversity of family circumstances represented in this study. Information such as location, community setting, and homeschool structure may influence access to educational opportunities and resources. Your responses will help ensure that findings are interpreted accurately within the context in which each learner's educational experience occurred. All items are voluntary, and you may skip any question.

Q10. State(s) where your learner was in public school and homeschooling:
[Short write-in response]

Q11. How would you describe your residential community setting during these times? (check all that apply)
☐ Rural
☐ Suburban
☐ Urban
☐ Prefer not to answer

Q12. What is your learner's current age?
[Write-in]

Q13. What is your learner's current grade or grade-level equivalent:
☐ Pre-Kindergarten
☐ Kindergarten
☐ Grade 1
☐ Grade 2
☐ Grade 3
☐ Grade 4
☐ Grade 5
☐ Grade 6

☐ Grade 7
☐ Grade 8
☐ Grade 9
☐ Grade 10
☐ Grade 11
☐ Grade 12
☐ Post–high school
☐ Other: [write-in]

Q14. How would you describe your learner's race or ethnicity? (check all that apply)
☐ American Indian or Alaska Native
☐ Asian
☐ Black or African American
☐ Hispanic or Latino/a/x
☐ Middle Eastern or North African
☐ Native Hawaiian or Other Pacific Islander
☐ White
☐ Another race or ethnicity: [write-in]
☐ Prefer not to answer

Q15. What was your household work situation during the time homeschooling occurred (check all that apply)
☐ One parent employed full-time outside the home
☐ One parent employed part-time outside the home
☐ Two parents employed outside the home
☐ Parent(s) not employed outside the home
☐ Prefer not to answer

Q16. Is your learner a first- or second-generation American? (check all that apply)
☐ First-generation (born outside the U.S.)
☐ Second-generation (born in the U.S. with one or both parents born outside the U.S.)
☐ Neither
☐ Prefer not to answer

Section 3: Contact Information

Q17. Your name: _____

Q18. Email address: _____

(Used only for eligibility confirmation and interview scheduling.)

Eligibility Confirmation Display (Shown Only if Eligible)

Thank you for your interest in this research! Based on your responses, you appear to meet the eligibility criteria for this study.

Once confirmed, the researcher will email you with a detailed consent form where the research study will be described in depth, including your rights and protections. If you elect to participate in the study, please submit the signed consent form to the researcher's email at lisa.jobe@bgs.edu. They will then reach out to you to schedule your interview. Participation is voluntary, and you may withdraw at any time.

Non-Eligibility Display (Shown Only if Participant Does not Meet the Above Criteria)

While your profile does not meet the eligibility criteria of this research, we thank you for your interest.

Lisa Jobe, Doctoral Candidate
lisa.jobe@bgs.edu
Researcher's Name and Contact Information

Dr. Susan Baum
susan.baum@bgs.edu
Supervisor's Name and Contact Information

Appendix B : Semi-Structured Qualitative Zoom Interview Guide

Introduction:

● Thank you for volunteering and for taking the time to talk with me today.

● I am Lisa Jobe, a doctoral candidate at Bridges Graduate School, conducting these interviews for my doctoral dissertation, studying profoundly gifted-2e learners who left public education to homeschool, and to what extent each learning environment met their learning needs.

● My dissertation will be published on the Bridges Graduate School website, and I may speak at conferences or write professionally about these findings, but your contributions will be anonymous. Nothing you say will be associated with you specifically. I won't use your name, just pseudonyms, and I will redact any other potentially-identifiable information that you share. Your contributions will be very helpful and important. Please answer as freely and openly as you can.

● I'll record the interview so that I can capture your words exactly, then create a transcript of our conversation that I will use to uncover themes that emerge from the research process. I may also jot some notes while you talk. You will also be given an opportunity to review this transcript to correct or add anything that you wish.

● I will save some time at the end of our interview for you to ask me any questions you may have.

● Do you have any questions for me before we record and begin?

[Push record] Confirm permission to record the interview.

Part 1: Introduction & Descriptive Context

Q1. To begin, could you please share a bit about your child and what their educational journey has been like?

Prompts: *How would you describe them as a learner? How would you describe their core strengths? What types of things are they deeply interested in?*

Q2. Thinking through that journey, what kinds of school or learning environments have they experienced over the years?

Prompts as needed: What grades were spent in public school? When did homeschooling become part of the picture?

Q3. Where were you located while navigating these different school settings?

Prompts as needed: Did anything about your local or state residence shape the options you had?

Part 2. Public-School Experiences

(Aligned to RQ1 & RQ2)

Q4. When your child was in public school, what did school feel like for them day-to-day?

Prompts: What did they enjoy? When did things feel harder? How did they seem emotionally during that time?

Q5. How did the school respond to areas where your child needed support or flexibility?

Prompts: Any services related to advanced learning? Any services for learning or attention challenges? For emotional or sensory challenges? What seemed to help? What did not?

Q6. During that time in public school, did the school itself identify your child as gifted and/or with a learning challenge?

Prompts as needed: Did you agree or disagree with those identifications? Examples? Was there a formal gifted program or practice? Were there barriers to those services?

Q7. In what ways did the public school support your child's learning and interests?

Prompts: Were there opportunities that challenged or inspired them? Areas they felt were boring or "not enough?" Can you think of any specific opportunities for creative choice or for self-direction?

Q8. In what ways did your child make social connections with peers?

Prompts: Where did they find their primary friendships (classroom, extracurriculars, etc)? Did they connect with a teacher or other adult mentor? Did they have trouble connecting with others? Did they feel socially fulfilled during this time? Please describe who they primarily connected?

Q9. What kinds of conversations did you have with teachers or the school about your child's needs?

Prompts: What were the responses like? If there were barriers, how did the school describe those

(i.e., policy restrictions, teacher feedback, etc)? How did this impact you– emotions, time spent advocating, etc?

Q10. What ultimately led you to decide that public school was no longer the right fit?

Part 3. Homeschooling *(Aligned to RQ3 & RQ4)*

Q11. What factors made you decide specifically to homeschool?

Prompt: What were you hoping would be different for your child?

Q12. Please describe in detail what learning looked like once you were homeschooling.

Prompts: What did a typical day or week look like? What physical environment created your child's best learning (at a desk, outdoors, etc.)? What type of schedule worked best (same time of day as public school, breaks, etc)

Q13. What types of social connections or friendships did your child form while homeschooling? Can you please give me an example of one or two of those relationships–where formed, primary connections, age, or geographic differences?

Q14. What kinds of resources or supports have you used while homeschooling?

Prompts: Did you have educational support from other professional educators? Can you describe what types of curriculum, co-ops, online classes, and AP/Dual enrollment are available? parent-taught curriculum, mentors, enrichment, dual enrollment, extracurriculars, therapies?)

Q15. Can you tell me about a time when homeschooling worked especially well for your child?

Prompts: What made that moment or experience a great fit?

Q16. Even with homeschooling, were there any needs that were still hard to meet?

Prompts: Social connections, advanced opportunities, services, structure

Part 4. Motivation and Well-Being *(Aligned to RQ5)*

Q17. When do you see your child most excited to learn or deeply engaged in something?

Prompts: What does that look like? How do you respond or support them when that excitement shows up?

Q18. When do you notice their motivation decrease or shut down?

Prompts: How do they act? What seems to make learning feel more difficult?

Q19. How did your child's motivation and confidence feel in public school?

Prompts: What did you notice from their behavior, emotions, or energy?

Q20. How has motivation and confidence felt for your child while homeschooling?

Prompts: Any examples where they initiated learning on their own?

Part 5. Reflections and Looking Forward

Q21. Looking back over the entire journey, what has worked best for your child overall?

Q22. What advice would you offer to other families who have children like yours?

Q23. What do you wish public schools understood about learners like your child?

Q24. Is there anything else you think would be important for me to understand about your child's experiences?

Closing:

Wonderful! This is all that I have.

● Thank you again for taking the time to participate in this interview.

● I just want to mention again that this interview is confidential and anonymous.

● May I circle back by email with any follow-up questions?

[End recording]