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# Sustainable and Inclusive Model for Gifted Education

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## Abstract

This study examines a TV series "Young Sheldon" using Gagné's Differentiated Model of Giftedness and Talent (DMGT) framework to propose a sustainable and inclusive model for gifted education. Using systematic content analysis, it emphasizes the need for tailored educational programs and inclusive practices to nurture gifted students' diverse needs. The series vividly portrays Sheldon's exceptional natural abilities and the environmental as well as intrapersonal catalysts that facilitate the transformation of his natural abilities into developed talents (competencies). Key environmental catalysts such as familial support, mentorship, enriched educational environments, and administrative decisions, while intrapersonal catalysts encompass Sheldon's curiosity, resilience, and intrinsic motivation. The findings in this investigation highlight the real-life activities, stages of growth, and investment that fosters the character's talents. By integrating insights from Sheldon's experiences and the DMGT framework, a cyclic model is proposed, involving early identification, tailored support, regular monitoring, periodic evaluation, celebration of achievements, reflection, and reintegration. This proposed model underscores the necessity of a coordinated effort from parents, teachers, and policymakers to create a holistic and adaptable educational environment for gifted students. The study concludes that a sustainable, inclusive approach to gifted education enhances experiences, aligns with societal equity goals, and ensures potential is maximized for all.

**Keywords:** DMGT Framework, Educational Catalysts, Gifted Education, Inclusive Education, Talent Development, Young Sheldon.

## Introduction

Gifted education is crucial for nurturing exceptional talents that drive innovation and societal progress. However, current models often fail to address the diverse needs of gifted individuals, highlighting the need for sustainable and inclusive approaches (1). Inclusive education, traditionally aimed at integrating students with special needs, now extends to gifted students, promoting equality and social justice by providing high-quality educational opportunities for all (2). Sustainable models of gifted education must also consider socio-emotional development, requiring systemic changes in educational practices and adequately skilled teachers (3). Such inclusive approaches align with global sustainable development goals, particularly those focused on quality education and reducing inequalities, ensuring that gifted individuals from all backgrounds can reach their full potential and contribute to societal development (4). Therefore, developing sustainable and inclusive models for gifted education not only enhances educational experiences but also contributes to broader societal goals of equity and justice.

The Differentiated Model of Giftedness and Talent (DMGT), developed by Françoys Gagné, is a comprehensive framework designed to understand the transformation of natural abilities (gifts) into systematically developed skills (talents) through the influence of various catalysts (5). The DMGT framework is instrumental in distinguishing between giftedness and talent, where giftedness refers to the innate, untrained abilities in specific domains such as intellectual, creative, social, or sensorimotor skills, while talent denotes the exceptional skills or achievements that have been honed through education, practice, and experience. The DMGT identifies several key components essential to this developmental process. Natural abilities represent the raw potential inherent in an individual, which can be observed in early childhood. These abilities are the foundation upon which talents are built. The developmental process encompasses structured



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learning, deliberate practice, and training activities that are necessary to transform these natural abilities into high-level competencies. Intrapersonal catalysts, such as motivation, personality traits, and self-management skills, play a significant role in this process by influencing an individual's engagement and persistence in developmental activities. Environmental catalysts, including family support, educational opportunities, peer influence, and societal factors, provide the necessary resources, encouragement, and opportunities to nurture and develop these abilities into talents (5).

"Young Sheldon," a prequel to "The Big Bang Theory," provides a compelling portrayal of the early life of Sheldon Cooper, a child prodigy navigating the complexities of being highly gifted within a conventional educational system in East Texas. The series explores Sheldon's exceptional intellectual abilities, particularly his advanced understanding of mathematics and science, his precocious vocabulary, and his intense curiosity, alongside the social challenges he faces. These narrative highlights both the potential and obstacles encountered by gifted individuals, offering a valuable context for examining various educational themes and constructs related to gifted education and socio-emotional development. The show underscores significant challenges in inclusive education. For example, Sheldon's experiences exemplify this issue, demonstrating the need for systemic changes in educational practices to better support gifted students (6). The support provided by Sheldon's mother and teachers in the show can be used to illustrate the importance of nurturing environments in fostering giftedness. Furthermore, advocacy for creative educational practices, such as artistic activities, to engage and motivate gifted students has been documented (7). Sheldon's advanced academic engagements in the series suggest this approach. Overall, "Young Sheldon" underscores the necessity of differentiated instruction, creative practices, and supportive environments to foster the development of gifted students, ensuring they receive the necessary resources and opportunities to reach their full potential. These insights can contribute to a broader understanding of the needs and challenges faced by gifted individuals in educational settings.

Understanding and fostering giftedness in an inclusive educational system is a critical endeavor that demands comprehensive research and practical models. "Young Sheldon" provides an excellent case study for examining the complexities involved in nurturing giftedness, particularly through the lens of the Differentiated Model of Giftedness and Talent (DMGT) developed by Françoys Gagné. The show vividly portrays Sheldon Cooper's extraordinary natural abilities, including his advanced understanding of mathematics and science, exceptional logical reasoning, and precocious vocabulary, all of which align with Gagné's definition of gifts as innate, untrained abilities in specific domains (5). Conducting research on this topic is imperative as it provides insights into the environmental catalysts and developmental processes that facilitate the transformation of gifts into talents. Environmental catalysts, such as family support, educational opportunities, and social interactions, play a pivotal role in transforming these innate gifts into cultivated talents, as illustrated by the support of Sheldon's mother, Mary, and his teachers (8). The developmental processes shown in "Young Sheldon" highlight the systematic efforts required to nurture Sheldon's abilities, emphasizing continuous learning, practice, and the right educational environment, which aligns with the DMGT's emphasis on structured practice to develop talents from gifts (9). Conducting this research is crucial for providing a detailed case study of the DMGT framework's practical application, highlighting the importance of environmental and developmental factors in nurturing giftedness, and proposing a sustainable model for gifted education that supports all students, ensuring gifted individuals receive the necessary resources and opportunities to reach their full potential (10).

Fictional characters in movies can serve as powerful tools for fostering real-world educational models and enhancing learning in the classroom. By leveraging narrative elements and character development, educators can create engaging and meaningful learning experiences that resonate with students. Research highlights how films with strong narrative structures improve students' comprehension of complex subjects, enhancing understanding and retention through story arcs and character development (11). This narrative-

based approach supports cognitive and cultural development, particularly in language acquisition and abstract thinking, while facilitating the application of analytical frameworks to foster higher-order thinking and knowledge transfer (12). Moreover, fictional narratives promote problem-solving, teamwork, and deep learning, enabling discussions on sensitive topics and fostering community among learners (13). This study examines "Young Sheldon" as a case study to propose a sustainable, inclusive model for gifted education, demonstrating the practical application of narrative elements to enhance learning outcomes.

Gifted education is a critical component of educational systems worldwide, addressing the unique needs of students with exceptional intellectual capabilities and creative talents. As education systems strive to accommodate diverse student populations, the necessity for sustainable and inclusive models in gifted education has become increasingly evident (5). Developing such models ensures that gifted individuals receive the support needed to maximize their potential while promoting inclusivity and diversity within the educational landscape. The show can highlight the significant role played by environmental catalysts, such as his family and teachers, in fostering his intellectual growth, underscoring the importance of supportive environments in the development of giftedness. Additionally, the developmental processes depicted in the show contribute to Sheldon's transformation from a child with raw abilities to a young individual with refined talents, aligning with the DMGT framework's emphasis on the dynamic interplay of personal effort and external support (5). Drawing insights from Sheldon's experiences, this research proposes a sustainable and inclusive model for fostering giftedness. The model emphasizes the importance of providing supportive environments, and understanding the dynamic developmental processes involved. Sustainability in this context refers to creating educational practices that can be maintained over time, ensuring continuous support for gifted students. Inclusivity emphasizes the need to cater to diverse student populations, ensuring that all gifted individuals, regardless of their backgrounds, have access to the resources and opportunities they need to thrive. The role of various catalyst actors, including family, educators, and the broader community, is crucial in fostering giftedness. Sheldon's mother, Mary, plays a pivotal role in nurturing his intellectual abilities, while his teachers and school environment, despite their challenges, contribute significantly to his development. By examining how these catalysts operate within the DMGT framework, the proposed model aims to create educational environments that are both supportive and inclusive, ensuring that gifted students can develop their talents to their fullest potential (5).

Thus, this study aims to analyze "Young Sheldon" through Gagné's Differentiated Model of Giftedness and Talent (DMGT) framework by examining how the show establishes Sheldon's natural abilities and innate talents, investigating the environmental and intrapersonal catalysts that facilitate the transformation of his gifts into developed talents, and exploring the developmental processes linking his natural abilities to competencies. Additionally, this study proposes a sustainable and inclusive model for gifted education by analyzing the role of various catalyst actors in Sheldon's development.

## Conceptual Framework

Gagné's Differentiated Model of Giftedness and Talent (DMGT) offers a comprehensive framework for understanding the transformation of natural abilities into developed talents through the interplay of various catalysts and systematic processes (5). This model identifies several key components as follows:

- Natural Abilities (Gifts): These are the innate abilities in intellectual, creative, social, perceptual, and physical domains that form the foundation of giftedness (5)
- Talent Development: This involves the systematic development of gifts into talents through structured activities, which require the investment of time, effort, and resources.
- Environmental Catalysts: Factors such as family, school, peers, and societal influences play a crucial role in supporting or hindering talent development. These catalysts provide the necessary support, encouragement, and opportunities for nurturing giftedness (5).
- Intrapersonal Catalysts: Personal traits such as motivation, resilience, and personality significantly impact the transformation of gifts into talents. These traits influence an

individual's engagement and persistence in developmental activities.

- Developmental Process: This is the dynamic process through which gifts are transformed into talents. It involves the systematic and continuous investment of resources, structured learning, and deliberate practice (5).

As shown in Figure 1, the relevance of the DMGT to the study of "Young Sheldon" lies in its structured approach to analyzing how the show establishes Sheldon's natural abilities and talents. The framework highlights the critical role of both environmental and intrapersonal catalysts in Sheldon's development, offering valuable insights into how these factors contribute to his talent development. By examining Sheldon's interactions with his family, teachers, and peers, the study can identify key elements that support or hinder the transformation of his natural abilities into talents. Furthermore, DMGT's emphasis on the developmental process aligns with the study's goal of proposing a sustainable model for inclusive gifted education, ensuring that all gifted students receive the necessary support to fully develop their talents in a supportive and inclusive environment (14).

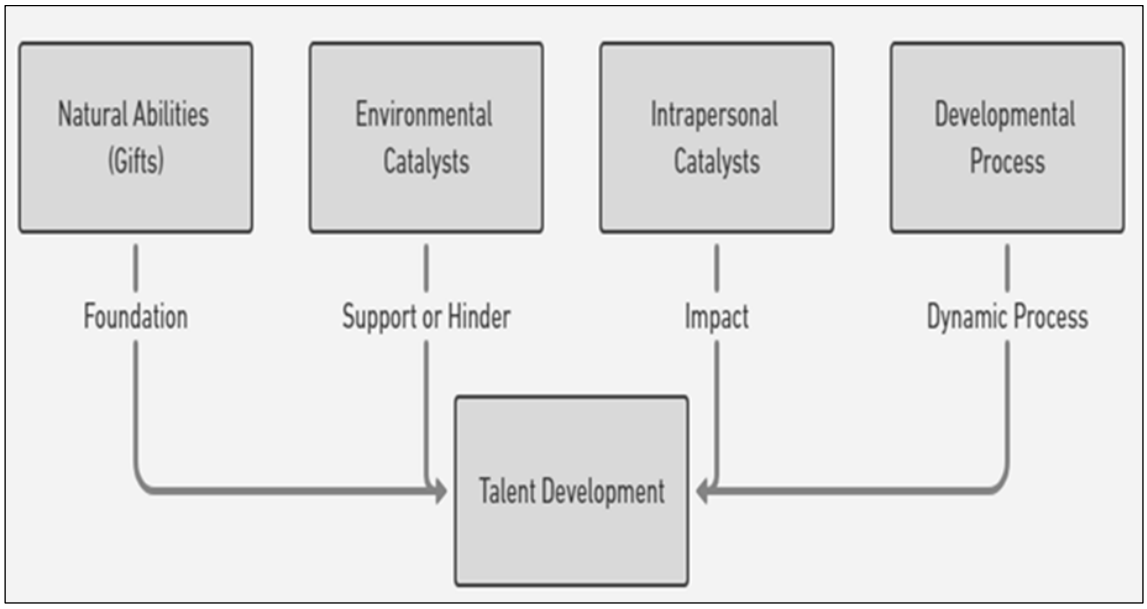


**Figure 1:** Components of Gagné's Differentiated Model of Giftedness and Talent (DMGT)

Inclusive education aims to address the needs of all students within the general education classroom, including those identified as gifted and talented (15). However, inclusive education often focuses primarily on students with disabilities, potentially neglecting the needs of the gifted, which poses ethical challenges and necessitates a distributive justice framework to ensure appropriate resources and opportunities (16). Recent discussions in the field of gifted and talented education (GATE) emphasize the need for equity, diversity, and inclusive practices, suggesting that "giftedness" should be viewed as a process rather than a static trait, enabling all students to exhibit gifted behaviors through appropriate educational practices (15). Implementing inclusive education for gifted students requires differentiating instruction to meet their unique learning needs, utilizing models like the Cognitive-Affective Interaction Model to enhance cognitive complexity and engagement (17). Incorporating creative educational practices, such as artistic activities, is crucial for the inclusion of gifted students, as it fosters their motivation and curiosity (7). Inclusive education policies must explicitly address the needs of gifted students to ensure their full participation and engagement, promoting specialized programs and professional training for educators (2). Despite the potential benefits, barriers such as inadequate teacher training, lack of resources, and misconceptions about giftedness hinder the successful inclusion of gifted students, necessitating systemic changes and holistic instructional strategies (18). Environmental catalysts, such as family support and educational opportunities, play a crucial role in the development of gifted students, as illustrated by Sheldon's character in "Young Sheldon," which highlights the impact of supportive environments on giftedness (8). Developing sustainable and

inclusive models for gifted education not only promotes equity and excellence but also aligns with broader societal goals of ensuring that gifted individuals from all backgrounds can contribute to societal progress.

Gagné's Differentiated Model of Giftedness and Talent (DMGT) has been extensively applied in educational research to understand and nurture the development of gifted individuals. Gagné's DMGT distinguishes between natural abilities (giftedness) and systematically developed skills (talent) through the influence of intrapersonal and environmental catalysts. An overview of differentiation models for gifted and talented individuals, highlighting the necessity of tailored educational programs to cater to their unique needs is provided in this study (19). They emphasize the use of various models to enrich the education process for gifted students. There is also a discussion on Finnish conceptions of giftedness and talent, advocating for differentiated teaching approaches within an egalitarian educational system (20). They explore how DMGT can be adapted to Finnish educational contexts to support gifted students. The integration of technological tools is examined in differentiated education for gifted students, proposing a hybrid model combining online and face-to-face learning as an effective differentiation strategy (21). In a review of the "Handbook of Giftedness and Talent Development in the Asia-Pacific," (22), which emphasizes the importance of considering sociocultural contexts in gifted education and highlights models like DMGT. Additionally, a book chapter discusses the talent development framework's implications for gifted services, contrasting it with traditional views and stressing the importance of domain-specific development (23). Overall, the DMGT provides a robust framework for talent development, but its application reveals the need for inclusive strategies to support all gifted individuals.

The television series "Young Sheldon" provides a comedic yet insightful portrayal of the early life of Sheldon Cooper, a genius physicist from the popular show "The Big Bang Theory." This series not only entertains but also serves various educational purposes. The cultural differences between China and the United States as depicted in "Young Sheldon," were examined with a focus on perspectives regarding humanity, education, kinship, love, and friendship (24). This analysis helps in understanding the contrasting educational values and societal norms between the two countries. Furthermore, it has been investigated the use of antonymy as a translation strategy in "Young Sheldon," highlighting how translation from English to Indonesian can facilitate language learning while maintaining the original humor and context of the series (25). Despite these valuable insights, there is a gap in research concerning the portrayal of a typical gifted child, like Sheldon, and how such a child can be supported. Exploring this aspect can have significant implications for gifted education, providing strategies to better support the intellectual and social development of gifted children while addressing the stereotypes associated with them.

The integration of popular media into educational theory development has emerged as a transformative approach, offering unique opportunities to enhance learning experiences and outcomes. Popular media, including television, music, films, and social media, serves as a relatable and engaging tool for fostering literacy, critical thinking, and active participation among students (26). Studies demonstrate how media like television shows and films, such as *Crash*, stimulate critical discussions on social issues, promoting deeper learning and critical thinking in adult education (27). Social media platforms further enhance collaborative learning, enabling students to engage interactively and improve academic performance through enhanced participation (28). Beyond engagement, popular media aligns with students' everyday interactions, developing their literacy and critical media skills by addressing their preferences and facilitating personalized learning (29). As a tool for critical pedagogy, popular media bridges the gap between theory and practice by using accessible content to explore complex educational theories and societal issues (30). This approach underscores the transformative potential of popular media to not only educate but also challenge societal norms and empower learners to think critically (31).

The development of sustainable and inclusive education models for gifted students is crucial to ensure that all students have the opportunity to reach their full potential, regardless of their backgrounds or abilities. In this context, implementing differentiated instruction is

essential for meeting the diverse needs of gifted students. For example, this is demonstrated in the way Cognitive-Affective Interaction Model effectively increases cognitive complexity and on-task behavior among high-achieving students (32). Moreover, advocating for incorporating creative educational practices, such as artistic activities, to engage and motivate gifted students (33). Similarly, adopting teacher training program as a critical component of sustainable inclusive education models, as insufficient training undermines the sustainability of gifted education (34). Additionally, using policy and legislative frameworks to foster a significant role, as improving existing education policies can provide an inclusive framework for gifted children (2). Considering this, the success of inclusive education models depends on environmental and intrapersonal catalysts, thus, the need for a combined paradigm of sustainable intercultural and inclusive education is critical (35). Also, highlighting the importance of inclusion is measured to adapt the education system and promote equal opportunities (36). To this end, developing an inclusive curriculum that caters to the needs of gifted students is essential (37). Thus, proposing an inclusive school curriculum model that integrates psychosocial development and emotional intelligence across cultures must be considered (38). Lastly, the sustainability of inclusive education models is influenced by factors such as leadership, teacher turnover, and policy changes (39). By addressing these elements, educational systems can promote equity and excellence, ensuring that gifted students receive the support they need to thrive.

Educational frameworks for fostering gifted education are diverse, integrating philosophical, psychological, and pedagogical approaches to meet the needs of gifted learners across cultural and educational contexts. The Integrated Naqli and Aqli Gifted Education (IGEd) curriculum in Malaysia blends Islamic civilizational values with modern practices, promoting holistic development through intellectual, spiritual, and moral dimensions (40). The Talent Development Megamodel (TDMM) synthesizes psychological literature on creativity and high performance, incorporating both cognitive and non-cognitive factors to guide curriculum design and assessment (41). In Lebanon, a culturally responsive model addresses the needs of both Lebanese and refugee gifted learners, emphasizing teacher preparation and equitable practices (42). The GTCrit framework tackles equity in gifted education by integrating critical theories to address underrepresentation of marginalized communities (43). Despite the existence of diverse frameworks for fostering gifted education, significant gaps remain in understanding how these models can be applied across varying cultural and socio-economic contexts, particularly through innovative methodologies like narrative-based learning.

While there is extensive literature on the inclusion of gifted students within general education classrooms and the application of models like Gagné's Differentiated Model of Giftedness and Talent (DMGT), there remains a significant gap in understanding how these frameworks are practically implemented and illustrated through popular media, such as the television series "Young Sheldon." Existing research predominantly focuses on theoretical frameworks and educational strategies, but there is a lack of empirical studies that investigate the real-life application and visualization of these models through relatable and accessible media formats. Moreover, the influence of environmental catalysts and the developmental processes that transform natural abilities into developed talents in the context of inclusive education needs further exploration. This study aims to bridge this gap by examining "Young Sheldon" as a case study to illustrate these concepts and propose a sustainable, inclusive model for gifted education.The following inquiries served as the basis for the research:

This study examines several key questions using Gagné's Differentiated Model of Giftedness and Talent (DMGT) framework to analyze Young Sheldon. First, how does the show establish Sheldon's natural abilities and innate talents, aligning with the DMGT framework's emphasis on untrained aptitudes? Second, what environmental and intrapersonal factors (catalysts), such as family support, mentorship, and intrinsic motivation, are depicted in the series as facilitating the transformation of Sheldon's gifts into developed talents? Third, what developmental processes are portrayed between Sheldon's natural abilities and his developed talents (competencies), including the activities, growth

stages, and investments required for their nurturing? Finally, how can a sustainable and inclusive model for gifted education be proposed by analyzing the role of various catalyst actors in Sheldon's development as depicted in the series? These questions guide the study in exploring how fictional narratives can inform real-world educational frameworks.

By addressing these questions, the study will contribute to the broader understanding of how fictional narratives can be utilized to inform and enhance real-world educational practices for gifted students, promoting a more inclusive and supportive learning environment.

# Methodology

## Case Study Design and Rationale

The television series "Young Sheldon" was chosen as a case study due to its rich depiction of a gifted child's experiences within a conventional educational and social environment, offering a comprehensive narrative that explores various facets of giftedness, including intellectual, emotional, and social dimensions. The show highlights Sheldon's interactions with his family, peers, and teachers, providing a nuanced view of the environmental and interpersonal factors influencing the development of gifted individuals (44). Gagné's Differentiated Model of Giftedness and Talent (DMGT) is particularly suited for analyzing "Young Sheldon" because it distinguishes between natural abilities (giftedness) and systematically developed skills (talent), emphasizing the role of intrapersonal and environmental catalysts in this transformation (8). This framework allows for a detailed examination of how Sheldon's innate abilities are nurtured and developed through various influences, such as family support, educational opportunities, and social interactions (45). The DMGT framework provides a robust structure for analyzing the complex interplay between Sheldon's natural abilities and his developed competencies, aligning with recent discussions in gifted and talented education (GATE) that view giftedness as a dynamic process (16). By applying the DMGT framework, this case study can provide valuable insights into the practical application of inclusive educational models for gifted students, highlighting effective strategies for supporting their growth and development.

The process of reviewing episodes of "Young Sheldon" involved a systematic content analysis aimed at identifying scenes that highlight Sheldon's academic excellence, problem-solving abilities, social interactions, recognition and achievements, and emotional as well as psychological aspects. Content analysis, defined as a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use (46), was employed to systematically analyze the show's episodes. The protocol to systematically identify and analyze scenes showcasing Sheldon Cooper's abilities in the "Young Sheldon" TV series, using content analysis guided by the Differentiated Model of Giftedness and Talent (DMGT) framework is as follows:

## Categorization Criteria of the Character

- **Natural Abilities (intellectual, creative and perceptual abilities):** Instances where Sheldon exhibits innate intellectual capacities, such as exceptional memory, advanced reasoning, and precocious understanding of complex concepts.
- **Talents (competencies and talents):** Episodes where Sheldon demonstrates developed skills or proficiencies in specific areas, such as achieving high scores in academic competitions or excelling in advanced coursework.
- **Intrapersonal Catalysts:** Scenes that reveal Sheldon's personal characteristics influencing his development, including motivation, resilience, and self-regulation.
- **Environmental Catalysts:** Instances highlighting external factors that support or hinder Sheldon's abilities, such as family support, school environment, and interactions with teachers and peers.
- **Developmental Processes:** Moments depicting the processes through which Sheldon's abilities are nurtured and developed, such as specific educational interventions, mentorship, and structured learning opportunities.

## Episode Selection and Review Process

- **Selection Criteria:** All episodes of "Young Sheldon" will be included to ensure a comprehensive analysis. This holistic approach is justified to capture the full range of Sheldon's

abilities across different contexts and developmental stages.

- **Full Episode Viewing:** Each episode will be watched in its entirety to avoid missing any relevant scenes and to maintain the context of Sheldon's behaviors and interactions (47).

## Data Collection

**Scene Identification:** During viewing, scenes will be marked for their relevance to Sheldon's intellectual, creative, socio-affective, and perceptual-motor abilities as defined by the DMGT framework (5). Notes will be taken on specific instances where Sheldon displays exceptional abilities or encounters significant environmental influences.

## Coding Framework

- **Coding:** coding will categorize these instances into DMGT domains: intellectual, creative, socio-affective, and perceptual-motor. Intrapersonal and environmental catalysts will also be coded to understand their impact on Sheldon's development (5).
- **Intercoder Reliability:** Multiple researchers will independently code the same episodes, followed by consensus meetings to resolve discrepancies. This step ensures coding reliability and validity. Using Cohen's kappa coefficient, targeting a kappa value of at least 0.80 (48), indicating substantial agreement among reviewers.

## Data Analysis

- **Pattern Identification:** Coded data will be analyzed to identify patterns and themes. Focus will be on the portrayal of Sheldon's giftedness, the nurturing or hindering effects of his environment, and the development of his talents over time.
- **Thematic analysis:** Thematic analysis was employed to extract insights from the categorized data, providing a nuanced understanding of the interplay between natural abilities, talents, intrapersonal and environmental catalysts, and developmental processes.

## Validation

- **Member Checking:** Findings will be shared with experts in gifted education and media studies for feedback. This step ensures the accuracy and relevance of the analysis (49).
- **Peer Debriefing:** Regular debriefing sessions with peers will be conducted to discuss the coding process and emerging themes, enhancing the study's credibility.

## Ethical Considerations

Given that the study focused on publicly available media content, ethical considerations were minimal. Nonetheless, the research adhered to best practices for ethical and legal considerations in media research and ensured proper handling of intellectual property rights.

## Developing a Sustainable and Inclusive Model for Gifted Education

The development of a sustainable and inclusive model for gifted education was informed by integrating findings from the case study of "Young Sheldon" and applying insights from the Differentiated Model of Giftedness and Talent (DMGT) framework (5) and thematic analysis. This process involved several key steps to ensure the model is evidence-based and practical for diverse educational settings. Also, the criteria of the model development involve integrating academic and non-academic support systems to nurture giftedness comprehensively as follows:

- **Personalized Learning Paths:** Emphasizes the creation of individualized learning plans that cater to the unique needs and strengths of gifted students. This includes advanced coursework, enrichment programs, and opportunities for independent study.
- **Supportive Environment:** Highlights the need for a supportive educational environment that includes trained teachers, access to resources, and a culture that values diversity and inclusion.
- **Intrapersonal and Environmental Catalysts**: Recognizes the importance of fostering intrapersonal catalysts such as motivation and resilience, and creating positive environmental catalysts including family involvement and peer support.
- **Developmental Processes:** Focuses on continuous assessment and development of gifted students through mentorship, regular feedback, and opportunities for creative and critical thinking.
- **Implementation Strategies:** Practical strategies for implementing the model that promotes inclusive gifted education include professional development for educators, creating partnerships with parents and communities, and policy advocacy for inclusive

gifted education programs. The model also proposes a cyclic collaboration among the key actors to adapt and refine educational practices that ensure continuous improvement in gifted education (50).

- **Ethical Considerations:** It involves ensuring the model promotes equity and access for all students, respecting the diverse backgrounds and needs of gifted individuals, and maintaining a commitment to ethical research and practice in education (17).

The proposed model for gifted education, informed by the DMGT framework and thematic analysis of "Young Sheldon," offers a comprehensive approach to nurturing giftedness in a sustainable and inclusive manner (5).

## Results

In answering research question 1, the analysis illustrates Sheldon's journey from a gifted child to a successful adult, highlighting his competencies and natural abilities as defined by the DMGT framework. As shown in Figure 2, Sheldon exhibits significant natural abilities primarily in the mental domain, reflecting his exceptional intellectual capabilities. However, he lacks natural abilities in the physical domain, specifically gross motor (GM) and gross coordination (GR) skills, which can be attributed to his slight stature. His competencies span various fields highlighted by DMGT, indicating a well-rounded development of talents in academics, RIASEC (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional) domains, and video games. Despite this, he does not exhibit any talent or interest in sports activities. This is evident in Season 1, Episode 3, where Sheldon devises various schemes to avoid participating in physical education and sports at school. Details of the results can be found in the supplementary material (see supplementary material for detailed results).

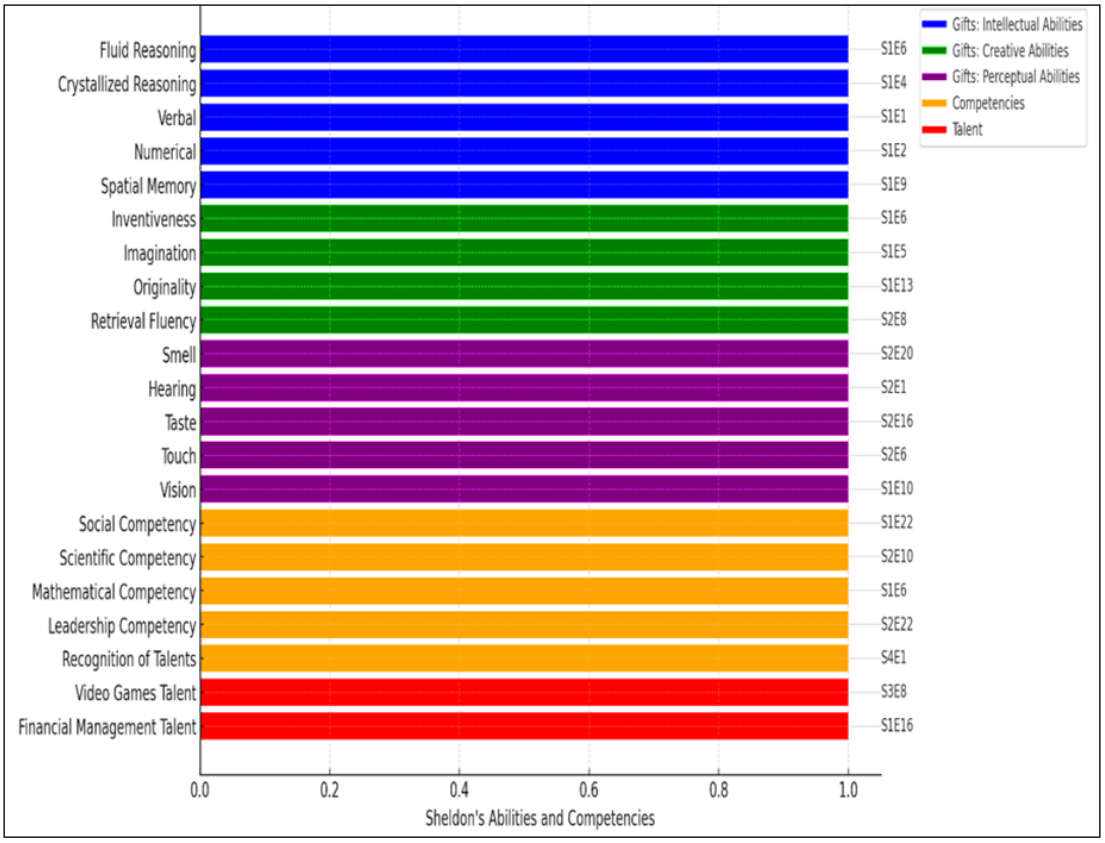


**Figure 2:** Visualization of Sheldon's Natural Abilities and Competencies across Seasons and Episodes

In response to research question 2, this study investigates the environmental and intrapersonal factors depicted in "Young Sheldon" that facilitate the transformation of Sheldon's natural abilities into developed talents, utilizing Gagné's Differentiated Model of Giftedness and Talent (DMGT) framework. As depicted in Table 1, environmental catalysts include a supportive familial environment, illustrated by his mother's acceptance of his scientific curiosity despite her religious beliefs, and the intellectual stimulation provided by his mentor, Dr. Sturgis. Furthermore,

administrative decisions, such as accelerating his education, and the enriched educational environment contribute significantly to his cognitive development. Intrapersonal catalysts include Sheldon's personality traits of curiosity and resilience, as well as his self-awareness and intrinsic motivation for learning. His physical traits, such as his smaller stature and associated challenges, also play a role in shaping his experiences. These catalysts collectively influence the transformation of Sheldon's gifts into developed talents, as demonstrated by his academic achievements and intellectual growth.

**Table 1:** Environmental and Intrapersonal Factors that Facilitate the Transformation of Sheldon's Natural Abilities into Developed Talents in Young Sheldon TV Show

| Category | Subcategory | Episode Example | Description |
|---|---|---|---|
| Environmental | Milieu - Physical and Cultural Environment | Season 2, Episode 17 | The science fair provided a platform for Sheldon to showcase his intellectual abilities, reinforcing his interest in science and encouraging excellence. |
| Environmental | Milieu - Social and Familial Environment | Season 3, Episode 6 | Sheldon's mother, Mary, supported his needs by creating a 'germ-free' zone, illustrating a supportive familial environment that enables him to focus on academics. |
| Environmental | Individuals - Parents and Family | Season 2, Episode 3 | Mary's acceptance and support of Sheldon's scientific interests, despite her own religious beliefs, foster a positive familial influence encouraging Sheldon's pursuits. |
| Environmental | Individuals - Teachers and Mentors | Season 2, Episode 10 | Dr. Sturgis's mentorship provided Sheldon with intellectual stimulation and guidance essential for his development. |
| Environmental | Resources Enrichment - Curriculum and Pedagogy | Season 1, Episode 22 | The advanced curriculum and pedagogy in high school challenged Sheldon intellectually, supporting his cognitive development. |
| Environmental | Administrative - Grouping and Acceleration | Season 1, Episode 1 | Placing Sheldon in high school classes despite his young age provided appropriate challenges, preventing boredom and fostering academic growth. |
| Intrapersonal | Physical Traits | Season 1, Episode 1 | Sheldon's youth and small stature emphasize his intellectual precocity and distinctiveness in a high school environment. |
| Intrapersonal | Handicap | Season 1, Episode 4 | Sheldon's hypersensitivity and resulting behaviors from traumatic experiences highlight his vulnerabilities and the need for support. |
| Intrapersonal | Health | Season 2, Episode 11 | Stress-induced physical ailments, such as a stomach ulcer, illustrate the interplay between Sheldon's mental and physical states. |
| Intrapersonal | Mental Traits - Temperament | Season 1, Episode 2 | Sheldon's rigid temperament and need for routine are evident in his strong reactions to changes in his environment. |
| Intrapersonal | Mental Traits - Personality | Season 2, Episode 10 | Sheldon's interactions with Dr. Sturgis reveal his deep intellectual enthusiasm and curiosity. |
| Intrapersonal | Mental Traits - Resilience | Season 3, Episode 14 | Sheldon's perseverance in the face of repeated failures demonstrates his resilience. |

| | | | |
|---|---|---|---|
| Intrapersonal | Goal Management - Self-Awareness | Season 1, Episode 6 | Sheldon's recognition of the impact of extracurricular activities on his academic performance shows his self-awareness. |
| Intrapersonal | Goal Management - Awareness of Others | Season 2, Episode 5 | Participation in a university research study helps Sheldon understand the social dynamics around him. |
| Intrapersonal | Goal Management - Motivation | Season 2, Episode 10 | Sheldon's intrinsic motivation is driven by his deep value for knowledge and intellectual growth. |
| Intrapersonal | Goal Management - Interests and Passions | Season 3, Episode 5 | Sheldon's intense interest in new scientific concepts drives his motivation and engagement. |
| Intrapersonal | Goal Management - Volition | Season 1, Episode 1; Season 3, Episode 14 | The autonomy provided by his accelerated education and his perseverance despite setbacks highlight his volitional traits. |

The third research objective of this study was to explore the developmental processes between Sheldon's natural abilities and his developed talents (competencies) as depicted in "Young Sheldon," based on the Differentiated Model of Giftedness and Talent (DMGT) framework. As shown in Figure 3, the analysis of various scenes from the show highlights the activities, stages of growth, and investment components essential for Sheldon's talent development. In Season 1, Episode 1 ("Pilot"), Sheldon starts high school at the age of nine, gaining access to a more advanced educational program, showcasing the advanced curriculum and challenging environment that cater to his intellectual level. In Season 2, Episode 2 ("A Rival Prodigy and Sir Isaac Neutron"), Sheldon competes in a science fair with a sophisticated project on quantum mechanics, demonstrating how the physical and educational environment provides opportunities for advanced learning. The progression in social skills is illustrated in Season 1, Episode 22 ("Vanilla Ice Cream, Gentleman Callers, and a Dinette Set"), where Sheldon transitions from being socially awkward to gaining proficiency in social interactions through his experiences with his grandmother's suitor. Dr. Sturgis acknowledges Sheldon's rapid progress in understanding complex scientific theories in Season 2, Episode 10 ("A Stunted Childhood and a Can of Fancy Mixed Nuts"), highlighting his accelerated learning pace. The significant time commitment required for his pursuits is shown in Season 3, Episode 8 ("An Entrepreneurialist and a Swat on the Bottom"), where Sheldon invests extensive hours into his entrepreneurial project. Financial support is depicted in Season 2, Episode 3 ("A Crisis of Faith and Octopus Aliens"), where Sheldon's family provides various resources for his scientific experiments. Additionally, in Season 3, Episode 10 ("Teenager Soup and a Little Ball of Fib"), Sheldon's psychological energy and resilience to manage stress and maintain dedication to his goals are highlighted. These episodes collectively illustrate the multifaceted investment necessary for nurturing Sheldon's exceptional abilities, effectively showcasing the developmental processes between his natural abilities and developed talents as outlined in the DMGT framework.

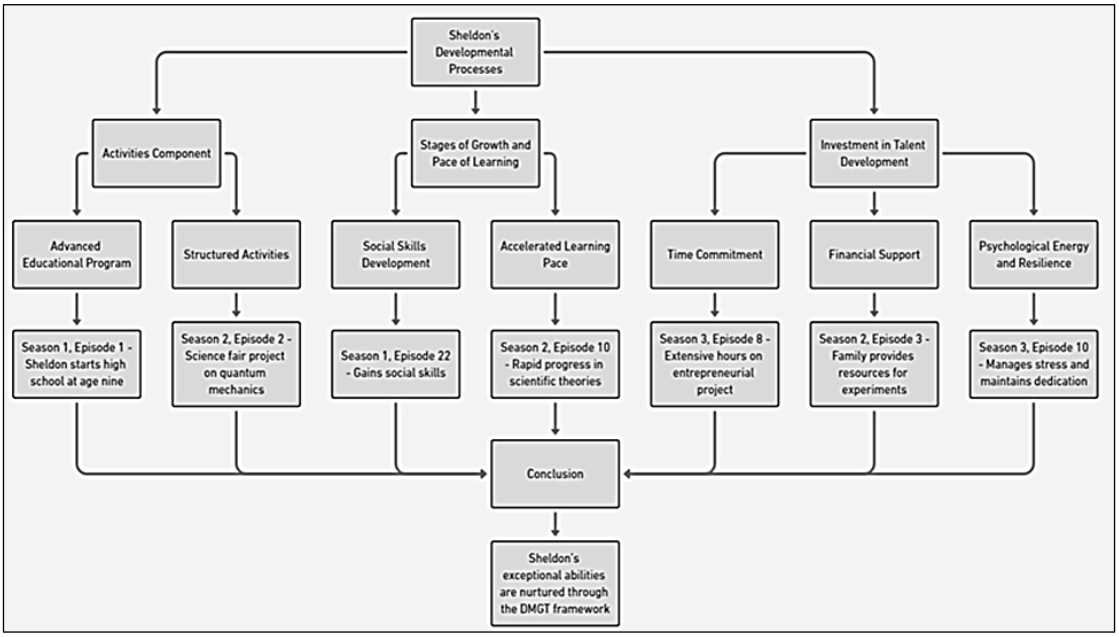


**Figure 3:** Flowchart of Sheldon's Developmental Processes in Young Sheldon TV Show

The 4th research objective involves proposing cyclic sustainable and inclusive model for gifted education. This is designed by analyzing the role of various catalysts in Sheldon's development as depicted in "Young Sheldon." This model integrates both environmental and intrapersonal catalysts, ensuring continuous adaptation to the unique needs of gifted students. Environmental catalysts include platforms for showcasing talents, supportive physical and familial environments, mentorship programs, advanced curriculums, and appropriate grouping and acceleration policies. Intrapersonal catalysts focus on health and wellness programs, support for sensitivities, structured routines, intellectual enthusiasm, self-awareness, intrinsic motivation, personal interests, and autonomy in educational pursuits. As shown in Figure 4, the cyclical process of the proposed model for gifted education begins with identification, where students are assessed for giftedness using standardized tests and teacher or parent referrals. Following identification, support is provided through tailored mentorship, advanced curriculums, and flexible grouping strategies to match their cognitive levels and interests. Monitoring involves continuous observation and regular health check-ups to ensure well-being and address any sensitivities. Evaluation consists of periodic assessments to gauge academic progress and personal development. Based on these evaluations, adjustments are made to educational approaches, ensuring they remain challenging and engaging. Celebration acknowledges student achievements, fostering motivation and a sense of accomplishment. Reflection involves students, teachers, and parents reviewing progress and setting new goals, promoting continuous growth. Finally, reintegration reassesses needs and integrates new environmental and intrapersonal catalysts, ensuring the model adapts to evolving student requirements, thus maintaining a sustainable and inclusive educational environment.

For example, the show highlights how Sheldon undergoes the cyclic process of gifted education through various environmental and intrapersonal catalysts. Initially, his giftedness is identified by his early academic achievements and parental recognition. Support comes from his mother creating a germ-free zone and his high school's advanced curriculum, providing a stimulating environment (Supportive Environment) (Season 1, Episode 22; Season 3, Episode 6). Monitoring is evident as his family and teachers regularly check on his progress and health, addressing his sensitivities (Monitoring) (Season 2, Episode 11). Evaluation occurs through feedback from mentors like Dr. Sturgis, who guides his intellectual growth (Developmental Processes) (Season 2, Episode 10). Adjustments are made as he skips grades and engages in new challenges to prevent boredom (Implementation Strategies) (Season 1, Episode 1). Celebration of his achievements, such as winning science fairs, boosts his confidence (Season 2,

Episode 17). Reflection happens through family discussions about his progress and setting new goals. Finally, reintegration ensures continuous adaptation to his evolving needs, maintaining a supportive environment. These rationales, derived from Sheldon's experiences, underscore the necessity of a tailored (Personalized Learning Paths), inclusive approach (Ethical Consideration) to gifted education.

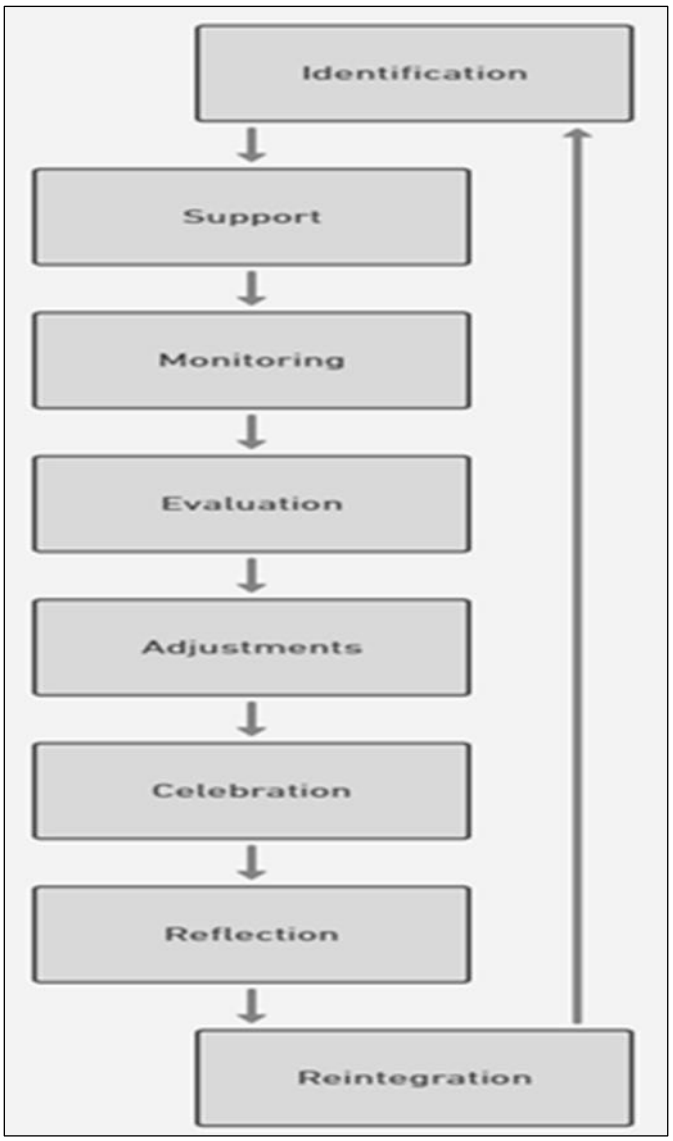


**Figure 4:** Cyclic Sustainable and Inclusive Model for Gifted Education

## Discussion

The examination of "Young Sheldon" using Gagné's Differentiated Model of Giftedness and Talent (DMGT) framework reveals significant insights into how Sheldon's natural abilities and talents are developed and nurtured within an inclusive educational context. Sheldon's exceptional intellectual abilities in the mental domain are consistently highlighted throughout the series, aligning with the necessity of tailored educational programs for gifted individuals (51), while his lack of physical abilities contrasts with a holistic view of giftedness. Incorporating creative educational practices, as seen in Sheldon's advanced academic pursuits, is crucial for engaging and motivating gifted students (46). Effective policy frameworks are essential to support inclusive education, ensuring gifted learners receive appropriate resources and opportunities (2). The analysis of "Young Sheldon" highlights the importance of recognizing and nurturing natural abilities and systematically developing talents through supportive environments and differentiated instruction. The show provides a relatable illustration of theoretical principles, emphasizing the need for inclusive educational models that

foster the full potential of gifted students, promoting equity and excellence in education.

In investigating the environmental and intrapersonal factors depicted in "Young Sheldon" that facilitate the transformation of Sheldon's natural abilities into developed talents using Gagné's Differentiated Model of Giftedness and Talent (DMGT) framework, several key themes emerge, providing insights into sustainable and inclusive models for gifted education. The significant role of environmental catalysts, such as the supportive familial environment exemplified by his mother's acceptance of his scientific curiosity despite her religious beliefs, is highlighted in the series (8). Mary's support encourages Sheldon to pursue his interests without feeling alienated. The intellectual stimulation provided by his mentor, Dr. Sturgis, offers essential guidance and advanced discussions, supporting (23) findings on mentorship in gifted education. Administrative decisions, such as accelerating Sheldon's education, prevent boredom and foster academic growth, underscoring the necessity of differentiated instruction (52). Enriched educational environments, like advanced high school science classes, provide necessary intellectual challenges crucial for gifted learners. Intrapersonal catalysts also play a vital role in Sheldon's transformation. His personality traits, such as curiosity, resilience, and intrinsic motivation for learning, align with the Cognitive-Affective Interaction Model (18). Sheldon's self-awareness and goal management further illustrate his progression from a gifted child to a developed talent. His resilience, demonstrated through various challenges, emphasizes the importance of psychological traits in managing stress and maintaining dedication to goals (53). "Young Sheldon" underscores the importance of creating supportive environments that include family support, mentorship, and enriched educational opportunities. These elements are essential for nurturing gifted individuals. The series also highlights the need for differentiated instruction and creative educational practices to cater to the unique needs of gifted students. By fostering these environmental and intrapersonal factors, educational models can promote equity and excellence, ensuring that gifted students reach their full potential (8). The show thus provides a comprehensive view of how supportive environments and personal attributes work together to transform natural abilities into developed talents, offering a valuable blueprint for sustainable and inclusive gifted education.

The third research objective of this study explored the developmental processes between Sheldon's natural abilities and developed talents, using the Differentiated Model of Giftedness and Talent (DMGT) framework. The analysis of "Young Sheldon" highlights key activities, stages of growth, and investment components essential for talent development. Starting high school at nine, Sheldon accesses an advanced educational program that stimulates his cognitive abilities through a challenging curriculum (8). His participation in a science fair with a sophisticated project emphasizes the role of enriched educational environments in fostering intellectual engagement (47). Sheldon's social skill progression, seen through improved social interactions, underscores the importance of social development in gifted education (54). Mentorship's significance is evident as Dr. Sturgis recognizes Sheldon's rapid comprehension of complex theories, highlighting accelerated learning through guidance (55). The extensive time commitment Sheldon invests in an entrepreneurial project demonstrates the role of sustained effort in talent development (56). Familial financial support for his experiments illustrates the impact of resource availability on nurturing talent (54). Additionally, Sheldon's resilience and stress management highlight the importance of psychological traits in overcoming challenges and maintaining dedication to goals (53). Collectively, these elements illustrate the multifaceted investments required for nurturing giftedness, effectively demonstrating the developmental processes from natural abilities to developed talents as per the DMGT framework, reinforcing the need for comprehensive support systems in gifted education (8).

The fourth research objective involves proposing a cyclic sustainable and inclusive model for gifted education by analyzing the role of various catalysts in Sheldon's development as depicted in "Young Sheldon.". The cyclical process of the proposed model for gifted education begins with identification, where students are assessed for giftedness using standardized tests and teacher or parent referrals, ensuring early recognition of

potential (57). Following identification, support is provided through tailored mentorship, advanced curriculums, and flexible grouping strategies to match cognitive levels and interests. Monitoring involves continuous observation and regular health check-ups to ensure well-being and address any sensitivities (58). Evaluation consists of periodic assessments to gauge academic progress and personal development, allowing for timely adjustments to educational approaches, ensuring they remain challenging and engaging (59). Celebration acknowledges student achievements, fostering motivation and a sense of accomplishment (60). Reflection involves students, teachers, and parents reviewing progress and setting new goals, promoting continuous growth and adaptation (61). Finally, reintegration reassesses needs and integrates new environmental and intrapersonal catalysts, ensuring the model adapts to evolving student requirements, thus maintaining a sustainable and inclusive educational environment (62). These stages collectively highlight the necessity of a tailored, inclusive approach to gifted education, ensuring that gifted students receive comprehensive support to fully develop their potential (63). This proposed model as a cyclic process is developed to ensure continuity, making the framework sustainable over time by embedding regular feedback loops and adaptive mechanisms that respond to students' evolving needs. By maintaining continuity, this cyclic framework embeds sustainability, ensuring long-term relevance and effectiveness for supporting gifted students throughout their educational journey.

Implementing a sustainable and inclusive model for gifted education, as proposed, requires a coordinated effort from parents, teachers, and policymakers. Each group plays a crucial role in ensuring that the educational needs of gifted students are met in a holistic and adaptable manner. Utilizing standardized tests, teacher referrals, and parent observations to identify gifted students early allows for early recognition of potential. Parents provide insights into their child's interests and abilities, ensuring early recognition, while teachers conduct assessments and identify students showing advanced capabilities. Policymakers develop and enforce policies mandating early identification procedures in schools (64). Tailored mentorship, advanced curriculums, and flexible grouping strategies are essential to match cognitive levels and interests, with parents supporting their child's educational pursuits, teachers delivering advanced curriculums and mentorship programs, and policymakers allocating resources for specialized programs and training (65). Continuous observation and regular health check-ups ensure student well-being and address sensitivities, with parents monitoring their child's health, teachers regularly assessing progress, and policymakers establishing frameworks for regular assessments (66). Periodic assessments gauge academic progress and personal development, allowing timely adjustments to educational approaches, with parents providing feedback, teachers administering assessments, and policymakers ensuring comprehensive evaluations (59). Acknowledging student achievements fosters motivation and a sense of accomplishment, with parents celebrating successes, teachers recognizing achievements in the classroom, and policymakers promoting recognition programs (60). Regular reviews of progress and setting new goals promote continuous growth and adaptation, with parents reflecting on progress with teachers, teachers facilitating discussions, and policymakers supporting frameworks for regular reviews (61). Reassessing needs and integrating new catalysts ensure the model adapts to evolving student requirements, with parents staying informed about changing needs, teachers updating teaching strategies, and policymakers ensuring educational policies are flexible and adaptable (62). By implementing these strategies, parents, teachers, and policymakers can create a supportive, dynamic, and inclusive educational environment that nurtures the potential of gifted students.

Thus, implementing the above model across diverse socio-economic and cultural contexts requires tailored strategies that address varying needs and resources. First, early identification of gifted students can be achieved through culturally responsive assessments that recognize diverse expressions of giftedness, ensuring inclusivity across different socio-economic groups (67). Second, personalized learning plans should incorporate locally relevant content, integrating cultural knowledge and practices into advanced curricula to make education relatable and

engaging (68). Third, collaborative efforts among parents, educators, and policymakers are essential. Parents can offer cultural insights, teachers can adapt instruction to reflect local contexts, and policymakers can allocate resources for underserved communities (69). Mentorship programs leveraging local experts and community leaders can further enrich learning while promoting equity (70). Finally, continuous monitoring and flexible policies ensure the model evolves to meet the unique challenges and opportunities of diverse contexts.

The pedagogical implications of the findings underscore the importance of personalized and flexible educational strategies that cater to the diverse needs of gifted students. By adopting Gagné's DMGT framework, educators can systematically develop students' talents through structured learning and practice, ensuring that each student's unique abilities are nurtured. This approach requires significant professional development for teachers to recognize and respond to the varied intellectual, social, and emotional needs of gifted students (71). Additionally, implementing a curriculum that is both challenging and engaging is crucial for maintaining the motivation and interest of gifted students, preventing underachievement and disengagement (72). The media representation of giftedness, as illustrated in "Young Sheldon," plays a pivotal role in shaping public perceptions and educational policies regarding gifted education. By highlighting the nuanced experiences of a gifted individual, the show raises awareness about the importance of providing appropriate support and resources for gifted students. This representation can influence educational stakeholders to advocate for more inclusive and comprehensive policies that address the needs of gifted learners. However, it is also important to critically assess these representations to avoid perpetuating stereotypes or unrealistic expectations about giftedness. Accurate and diverse portrayals in media can contribute to a more informed understanding of the complexities involved in nurturing gifted individuals, promoting a more equitable and supportive educational environment (73).

Lastly, the examination of "Young Sheldon" using Gagné's Differentiated Model of Giftedness and Talent (DMGT) framework reveals how Sheldon's natural abilities are nurtured through inclusive education. The show highlights the importance of environmental catalysts, such as familial support and advanced educational programs, and intrapersonal catalysts, like curiosity and resilience, in developing his talents (8). Implementing a sustainable and inclusive gifted education model requires early identification through standardized tests and referrals, tailored mentorship, advanced curriculums, continuous monitoring, periodic evaluations, and celebrating achievements (74). Parents, teachers, and policymakers each play crucial roles: parents provide support and insights, teachers deliver advanced instruction and mentorship, and policymakers ensure resources and frameworks for effective education (75). This comprehensive approach ensures that gifted students receive the necessary support to fully develop their potential, promoting equity and excellence in education (2).

## Conclusion

The exploration of "Young Sheldon" using Gagné's Differentiated Model of Giftedness and Talent (DMGT) framework provides valuable insights into the development and nurturing of giftedness within an inclusive educational context, highlighting Sheldon's exceptional intellectual abilities and the significant role of environmental and intrapersonal catalysts in transforming natural abilities into developed talents. The proposed cyclic model for gifted education underscores the importance of early identification, tailored support, continuous monitoring, periodic evaluation, and celebration of achievements, advocating for a coordinated effort from parents, teachers, and policymakers to create a holistic and adaptable educational environment for gifted students. However, the study's reliance on a fictional series limits its generalizability, and future research should include empirical studies and real-life case studies to validate the model. Another key limitation of this study lies in the reliance on the fictional character Sheldon Cooper from *Young Sheldon* as a case study to conceptualize and propose an inclusive model for gifted education. While Sheldon's portrayal offers valuable insights into the environmental and intrapersonal catalysts that support giftedness, it also embodies significant social challenges that may not be universally representative of all gifted individuals. This duality risks inadvertently reinforcing stereotypes that giftedness is

inherently associated with social awkwardness or emotional difficulties. Readers are cautioned to interpret these findings with an awareness of the limitations of fictional narratives, as they often exaggerate traits for dramatic effect. Consequently, while this study provides a meaningful framework, it is essential to complement these insights with empirical research on real-life gifted individuals to avoid overgeneralizing or perpetuating narrow views of giftedness. Recommendations include investing in professional development for educators, developing an inclusive curriculum, advocating for comprehensive educational policies, and encouraging parental involvement. This study contributes to the field by proposing a sustainable and inclusive model that integrates insights from theoretical frameworks and media representations, emphasizing the importance of supportive and adaptive educational environments. In conclusion, the findings underscore the need for sustainable and inclusive models in gifted education, ensuring that gifted students receive the necessary support to reach their full potential, aligning with broader societal goals of equity and excellence, and contributing to the development of future innovators and leaders.

## Abbreviation

Nil.

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Nil.

## Author Contributions

All authors have equally contributed.

## Conflict of Interest

Author declared that there is no conflict of interest.

## Ethics Approval

Not applicable.

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# References

1. Shutaleva A, Martyushev N, Nikonova Z, Savchenko I, Kukartsev V, Tynchenko V, et al. Sustainability of inclusive education in schools and higher education: Teachers and students with special educational needs. Sustainability. 2023;15(4):3011.
2. Ninkov I. Education policies for gifted children within a human rights paradigm: A comparative analysis. Journal of Human Rights and Social Work. 2020;5(4):280–9.
3. Ainscow M, Sandill A. Developing inclusive education systems: The role of organisational cultures and leadership. International journal of inclusive education. 2010;14(4):401–16.
4. Rad D, Redeş A, Roman A, Ignat S, Lile R, Demeter E, et al. Pathways to inclusive and equitable quality early childhood education for achieving SDG4 goal—a scoping review. Frontiers in psychology. 2022;13:955833.
5. Gagné F. Transforming gifts into talents: The DMGT as a developmental theory. High ability studies. 2004;15(2):119–47.
6. Mun RU, Ezzani MD, Lee LE, Ottwein JK. Building Systemic Capacity to Improve Identification and Services in Gifted Education: A Case Study of One District. Gifted Child Quarterly. 2021 Apr;65(2):132–52.
7. Carroll LK. In their own voices: Helping artistically gifted and talented students succeed academically. Gifted Child Today. 2008;31(4):36-43.
8. Gagné F. Motivation within the DMGT 2.0 framework. High ability studies. 2010;21(2):81–99.
9. Feldhusen JF. Transforming gifts into talent: the DMGT theoretical model—a response. High Ability Studies. 2004;15(2):151–2.
10. Eryılmaz R. Sustainable learning in gifted students: The relationship between cultural capital and lifelong learning. Sustainability. 2024;16(23):10702.
11. Salvador-Sarauz P, Cobos M. Narrative as a Key Element for Learning Through Videos. In ECTM 2023-2023 IEEE 7th Ecuador Technical Chapters Meeting; 2023. https://repositorio.uti.edu.ec/handle/123456789/6146
12. Ayhan KJ. Transferring knowledge to narrative worlds: applying power taxonomy to science fiction films. International Studies Perspectives. 2020;21(3):258–74.
13. Fischer BA. Fact or Fiction? Designing Stories for Active Learning Exercises. Journal of Political Science Education. 2019 Apr 3;15(2):179–90.
14. Spoon R, Rubenstein LD, Shively K, Stith K, Ascolani M, Potts ML. Reconceptualizing professional learning within the gifted field: Exploring the instruct to innovate model. Journal for the Education of the Gifted. 2020;43(3):193–226.
15. Lo CO, Lin-Yang RC, Chrostowski M. Giftedness as a framework of inclusive education. Gifted Education International. 2022;38(3):431–7.
16. Tirri K, Laine S. Ethical challenges in inclusive education: The case of gifted students. In: Ethics, equity, and inclusive education. Emerald Publishing Limited. 2017;9:239–57.
17. Tatematsu E. Cognitive Developmental Approaches Toward Inclusive Education: Informal Assessments in Individual Practice. In: Developing Inclusive Environments in Education: Global practices and curricula. IGI Global Scientific Publishing. 2023;72-94.
18. Siegle D, Gubbins EJ, O'Rourke P, Langley SD, Mun RU, Luria SR, et al. Barriers to underserved students' participation in gifted programs and possible solutions. Journal for the Education of the Gifted. 2016;39(2):103–31.
19. Göksu DY, Gelişli Y. Differentiation Models for the Curriculum of Gifted and Talented Individuals: A Literature Review. International Journal of Educational Research Review. 2023;8(2):268–279.

20. Laine S, Tirri K. Finnish conceptions of giftedness and talent. Conceptions of giftedness and talent. Cham: Palgrave Macmillan. 2021;235–249.
21. Doğan GA. Differentiation for the Gifted: Opportunities Provided by Distance-Online Education. In: Advancing STEM Education and Innovation in a Time of Distance Learning. IGI Global. 2023;73–92.
22. Smith SR. Handbook of giftedness and talent development in the Asia-Pacific. Springer. 2021;1-1507.
23. Olszewski-Kubilius P, Subotnik R, Worrell F. Domain-specific abilities and characteristics: Evolving central components of the talent development megamodel. High Ability Studies. 2023;34(2):159–74.
24. Chang, Liu. A Preliminary Analysis of the China-US Cultural Differences Based on the TV Series Young Sheldon. Academic Journal of Humanities & Social Sciences. 2022;5(7):54–8.
25. Tambunan SD. Antonymy Strategy in Translating Utterances from English into Indonesian in a Series Entitled "Young Sheldon" Season 01 Episodes 1-5. Jurnal Sosial Humaniora dan Pendidikan. 2023;2(3):56–60.
26. Lee JH. Using popular music as a teaching tool: a literature review. Asia-pacific Journal of Multimedia Services Convergent with Art, Humanities, and Sociology. 2015;5(1):99–106.
27. Wright RR, Sandlin JA. Seinfeld, The Simpsons, and Seductive Vampire Slayers: A Literature Review of Adult Education and Popular Culture: Adult Education Research Conference. 2008;1-7.
28. Al-Rahmi WM, Zeki AM. A model of using social media for collaborative learning to enhance learners' performance on learning. Journal of King Saud University-Computer and Information Sciences. 2017;29(4):526–35.
29. Bippert K. Popular Media and Grade 6-12 Literacy: A Review of Practitioner Literature. Connecting Disciplinary Literacy and Digital Storytelling in K-12 Education. 2021;1–23.
30. Cramp A, McDougall J. Doing theory on education: Using popular culture to explore key debates: Routledge. 2018;1-240. https://doi.org/10.4324/9781315167039
31. Suprayogi MN, Valcke M, Godwin R. Teachers and their implementation of differentiated instruction in the classroom. Teaching and teacher education. 2017;67:291–301.
32. Lawrence-Brown D. Differentiated instruction: Inclusive strategies for standards-based learning that benefit the whole class. American secondary education. 2004;32(3):34–62.
33. Biasutti M, Concina E, Frate S. Social sustainability and professional development: Assessing a training course on intercultural education for in-service teachers. Sustainability. 2019;11(5):1238.
34. Sorkos G, Hajisoteriou C. Sustainable intercultural and inclusive education: Teachers' efforts on promoting a combining paradigm. Pedagogy, Culture & Society. 2021;29(4):517–36.
35. Medina-García M, Doña-Toledo L, Higueras-Rodríguez L. Equal opportunities in an inclusive and sustainable education system: An explanatory model. Sustainability. 2020;12(11):4626.
36. Fahri I, Hufad A, Tarsidi D, Aprilia ID. The Curriculum Model for Inclusion Schools for Gifted and Talented Based on Psychosocial and Emotional Intelligence Abilities. In Atlantis Press. 2019;95–97.
37. Shakeri GR, Abbasi E, Gramipour M. Designing and validating the curriculum model of the elementary school with an emphasis on emotional intelligence. Res Teach. 2022;10(4):117-82.
38. Sindelar PT, Shearer DK, Yendol-Hoppey D, Liebert TW. The sustainability of inclusive school reform. Exceptional Children. 2006;72(3):317–31.
39. Zakaria Z, Hilmi ABA, Ali ZM, Rahman TAFTA, Usop R, A'wani Abd Aziz N, et al. RAAIS Character Ethic Framework: Integrating the Civilisational Values and Principles in the Islamic Gifted Education Model. 'Abqari Journal. 2024;31(2):48–67.
40. Subotnik RF, Olszewski-Kubilius P, Corwith S, Calvert E, Worrell FC. Transforming gifted education in schools: Practical applications of a comprehensive framework for developing academic talent. Education Sciences. 2023;13(7):707.
41. Antoun M. Framing the education for gifted Lebanese and gifted refugees in Lebanon. Frontiers in Psychology. 2022;13:1077278.
42. Caroleo SA. A Revised GTCrit Framework: A Broadened Critical Lens for Gifted and Advanced Education Settings. Berkeley Review of Education. 2023;12(2):81-108
44. Piske FHR, Stoltz T, Machado J. Creative Educational Practices for Inclusion. Online Submission. 2014;5:803–8.
45. Ho PS, Chong SN. The talent development of a musically gifted adolescent in Singapore. International journal of music education. 2010;28(1):47–60.
46. Krippendorff K. Content analysis: An introduction to its methodology: Sage. 2018;1-453
47. Neuendorf KA. The content analysis guidebook: Sage. 2017;1-438
48. Savage T, McIntosh A, Fréchède B. Interrater reliability assessment of a qualitative video analysis protocol to assess injury mechanisms and risks. British journal of sports medicine. 2011;45(4):372–372.
49. Creswell JW, Poth CN. Qualitative inquiry and research design: Choosing among five approaches: Sage. 2016; 1-447
50. Freeman B. Policy cycle in higher education, theories of. Encyclopedia of International Higher Education Systems and Institutions, Springer. 2020; 2245–2251. https://doi.org/10.1007/978-94-017-8905-9_152
51. García-Martínez I, Gutiérrez Cáceres R, Luque de La Rosa A, León SP. Analysing educational interventions with gifted students: Systematic review. Children. 2021;8(5):365.
52. Friedman RC, Lee SW. Differentiating instruction for high-achieving/gifted children in regular classrooms: A field test of three gifted-education models. Journal for the Education of the Gifted. 1996;19(4):405–36.
53. Belousova A, Syurtukova M, Drozdova I, Churyukin G. Features of emotional intelligence of gifted high school students with different educational profiles. In EDP Sciences; 2024. 07011. https://doi.org/10.1051/bioconf/202411607011

54. Olszewski-Kubilius P, Lee SY, Thomson D. Family environment and social development in gifted students. Gifted Child Quarterly. 2014;58(3):199–216.
55. Hébert TP, Olenchak FR. Mentors for Gifted Underachieving Males: Developing Potential and Realizing Promise. Gifted Child Quarterly. 2000 Jul;44(3):196–207.
56. Sánchez PA, de Haro-Rodríguez R, Martínez RM. Barriers to student learning and participation in an inclusive school as perceived by future education professionals. Journal of New Approaches in Educational Research (NAER Journal). 2019;8(1):18–24.
57. Brigandi CB, Weiner JM, Siegle D, Gubbins EJ, Little CA. Environmental perceptions of gifted secondary school students engaged in an evidence-based enrichment practice. Gifted Child Quarterly. 2018;62(3):289–305.
58. Yıldız S, Altay N, Toruner EK. Health, care and family problems in gifted children: A literature review. Journal for the Education of Gifted Young Scientists. 2017;5(3):15–24.
59. Hopkins A. A program evaluation of an academic and behavioral program created for gifted students with autism. 2024;1-164. https://hdl.handle.net/11274/16226
60. Blyznyuk T, Sydoriv S. Celebrating Diversity. The Space of Inclusive Education: Voices from Ukraine and Beyond. 2024;53:193.
61. Rabon PG. Gifted and…Teacher reflection and transformation in response to teaching gifted students. Electronic Theses and Dissertations.2024;(189):1-254.
62. Arnstein KB, Desmet OA, Seward K, Traynor A, Olenchak FR. Underrepresented Students in Gifted and Talented Education: Using Positive Psychology to Identify and Serve. Education sciences. 2023;13(9):955.
63. Tucker B, Hafenstein NL, Jones S, Bernick R, Haines K. An integrated-thematic curriculum for gifted learners. Roeper Rev. 1997;19(4):196-199.
64. Slater E. The identification of gifted children in Australia: The importance of policy. TalentEd. 2018;30(1):1–16.
65. Pfeiffer SI. Handbook of giftedness in children. Psychoeducational theory, research and best practices. 2008;177–98.
66. Molapo TP, Salyers M. Parent-teacher shared commitment as a predictor for teachers' attitudes toward gifted students and gifted education. Journal of Studies in Education. 2014;4(1):190–205.
67. Nortvedt GA, Wiese E, Brown M, Burns D, McNamara G, O'Hara J, et al. Aiding culturally responsive assessment in schools in a globalising world. Educ Asse Eval Acc. 2020 Feb;32(1):5–27.
68. Bulger M. Personalized learning: The conversations we're not having. Data and Society. 2016;22(1):1–29.
69. Gilmore L, Mann G, Pennell D. Inclusive Secondary Schooling: Challenges in Developing Effective Parent-Teacher Collaborations. In: Boyle C, Allen KA, editors. Research for Inclusive Quality Education: Springer Nature Singapore. 2023; 183–192.
70. Lopez AE. Collaborative Mentorship: A Mentoring Approach to Support and Sustain Teachers for Equity and Diversity. Mentoring & Tutoring: Partnership in Learning. 2013 Aug;21(3):292–311.
71. Drąsutė V, Kuodienė R. Nurturing Teachers Excellence in Gifted Education-Results, Experiences, and Challenges. 2024;1-8. https://conference.pixel-online.net/files/foe/ed0014/FP/0619-DEV6592-FP-FOE14.pdf
72. Aydın M, Yurdugül H. Developing a Curriculum Framework of Artificial Intelligence Teaching for Gifted Students. Kastamonu Education Journal. 2024;32(1):14–37.
73. Lasekan O. Identification and adoption of themes in the big bang theory sitcom to foster academic cultural competencies of doctoral students in english for academic conversation classroom. Frontiers in Psychology. 2021;12:699662.
74. Brazzolotto M. Sustainable Education to Promote Inclusion in Gifted Children throughout Socialization, after COVID-19 Pandemic. Formazione & insegnamento. 2022;20(1 Tome II):664–77.
75. Penney S, Wilgosh L. Fostering parent-teacher relationships when children are gifted. Gifted Education International. 2000;14(3):217–29.