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TABLE OF CONTENTS

Leadership and Gifted Education - why it's valued in the Australian Context Jennie Quinn & Penina Kiss	03
Fostering giftedness in primary education: challenges, strategies, and the power of branching out topics Juliane Walker	07
Equitable Identification of Gifted Refugee Students: Challenges and Pathways Ali Alodat	13
Hidden Strengths, Overlooked Needs: Lessons from Parents of Twice-Exceptional Children in Ireland Keri M. Guilbault, Orla Dunne, Leanne Hinch & Colm O'Reilly	20
Designing with Purpose: Applying the ADIC Model in AI-Powered Gifted Education Dr. Abdurrahman Ghaleb Almekhlafi	27
From Potential to Talent: How Parents Nurture Early Giftedness Khadija Ahmed Alsaqqaf and Dr. Mohammad Al-Rashaida	33



March Editorial



LEADERSHIP AND GIFTED EDUCATION - WHY IT'S VALUED IN THE AUSTRALIAN CONTEXT

Jennie Quinn & Penina Kiss

Happy belated New Year. We do hope it has started well for you all. In 2026, we are excited to bring you a new look WTW newsletter, with quarterly installments. If you have ever considered writing or sharing an article with our international audience, we would encourage you to read the WTW guidelines within this publication. The March edition sees our friend and colleague, Nicole Shepherd, take on the role of guest editor, sharing her thoughts on leadership in the current Australian context.



Guest Editor:
Nicole Shepherd

The New South Wales (NSW) Government's 2025-2026 state budget outlined an increase in spending on key educational initiatives. With \$10.4 billion injected into the Better and Fairer Schools agreement (Australian Government Department of Education, 2025) and an additional \$9 billion earmarked for infrastructure, the physical and systemic foundations of NSW schools are being fortified. Of particular significance is the specific expansion of high potential and gifted education (HPGE) funding, which has doubled to \$100 million. This investment promises to expand specialist facilities and increase opportunities for gifted and high potential students.

While it is encouraging to see such a focus, the success of the HPGE initiative relies not just on funds but on exceptional and visionary leadership. Without a robust leadership framework, even the most sophisticated facilities risk becoming underutilised monuments to a missed opportunity.

Effective leadership in gifted education requires more than administrative oversight; it demands what Sergiovanni (2015) describes as a "moral imperative" based on purpose, values, and beliefs. Research by Barnett, Rogers, and Long (2015) identifies specific 'deep-level characteristics' that leaders must possess to enhance teacher capacity in selective environments. These include a passionate mission to ensure students reach their potential, a "whole-person" approach to education, and an optimistic, proactive stance toward contextual constraints.

The leader's role is to cultivate a culture where people and relationships are valued. When a Principal exhibits a genuine belief that change is possible and maintains a long-term vision, it directly correlates with a teacher's willingness and ability to differentiate for high-ability students (Plucker & Callaghan, 2014). In short, the leader is the chief advocate—a role that encompasses the strategic use of models and processes to achieve specific, equitable outcomes for our brightest minds.

To move beyond well-meaning advocacy, leaders must ground their practice in evidence-based frameworks. The National Association for Gifted Children (NAGC) standards (2024) provide guidance, emphasising the need to address both the cognitive and affective domains to ensure continuous growth.

Davis, Rimm, and Siegel (2011) outline 10 steps for administrators of Gifted Programs, designed by Joyce Van Tassel-Baska for the NAGC, and offer a practical checklist for the modern school leader. These steps range from understanding how gifted students learn and differentiating the curriculum to more systemic goals, such as developing service options for students living in poverty, incorporating the arts and institutionalising identification systems from K-12. It highlights the need for leaders to prepare educators to provide quality instruction and to collaborate with stakeholders outside the immediate school environment.

The 2021 update—and subsequent 2025 refinement—of the NSW Department of Education's High Potential and Gifted Education Policy reflects a broader focus informed by current research. By moving toward the language of "High Potential," the policy broadens the focus to include talent development across multiple domains.

A vital inclusion in the 2025 release is the explicit articulation of Roles and Responsibilities. The policy clarifies that the Principal is the "visionary driver" of this change, as set out by the NSW Department of Education (2025):

- optimise talent development of high potential and gifted students across all domains of potential by leading a supportive learning environment that develops the whole student.
- lead and support teachers in assessing and identifying the specific learning needs of high potential and gifted students across all domains of potential and effective differentiation for those students.
- provide and support access to acceleration or advanced learning pathways and opportunities.

- engage in quality professional learning to enhance their understanding of research and practice of the needs of high potential and gifted students across all domains of potential.
- lead collaboration with families, school communities and the wider community to support the talent development of high potential and gifted students.
- lead support for high potential and gifted students through the work of the Learning Support team and school counsellor/psychologist.
- lead the analysis and evaluation of data to enable school monitoring of procedures, programs and practices for high potential and gifted students.
- lead, plan and report on the implementation of the policy through specific procedures, programs and practices to meet the learning needs of high potential and gifted students.
- include quality and evidence-informed teaching practices in school planning that identify explicit goals for high potential and gifted students across all domains of potential.
- manage the staffing and support of programs and classes for high potential and gifted students, including specialist classes and schools.

By embedding these responsibilities into the official policy, the system ensures that HPGE is not a "side project" but a core component of school planning and staffing.

From my recent work with school leadership teams, it is clear that while Principals may not always hold formal post-graduate qualifications in Gifted Education, they must understand its core principles. They must empower staff members who do have that specific expertise and ensure that the school's resources—both financial and human—are directed toward effective, equitable provisions.

Frameworks, policies, and budgets are essential tools, but they remain static without a proactive leader's hand. As we move into this era of strong investment, the challenge for NSW leaders is to take a hands-on approach to change management, ensuring that the "Better and Fairer" promise is realised for every high-potential student.

Our first quarterly edition brings perspectives on gifted education from around the globe. Julianne Walker fosters giftedness in primary education discussing challenges, strategies, and the power of branching out topics. Ali Alodat brings us an important article highlighting challenges and pathways in the pursuit of Equitable Identification for Gifted Refugee Students. Keri M. Guilbault, Orla Dunne, Leeanne Hinch & Colm O'Reilly take a unique look at twice exceptionality in the Irish context and provide key ideas to support educators. Dr. Abdurrahman Ghaleb Almekhlafi's article shows how educators can use the ADIC model to create AI-Powered Gifted Education and finally, Khadija Ahmed Alsaqqaf and Dr. Mohammad Al-Rashaida offers support to parents in their article, From Potential to Talent: How Parents Nurture Early Giftedness.

With our very best,
Jennie and Penina

References

Australian Government Department of Education. (2025). *The Better and Fairer Schools Agreement (2025–2034)*.
<https://www.education.gov.au/recurrent-funding-schools/national-school-reform-agreement/better-and-fairer-schools-agreement-20252034>

Davis, G. A., Rimm, S. B., & Siegle, D. (2011). *Education of the gifted and talented* (6th ed.). Pearson.

Long, L. C., Barnett, K., & Rogers, K. B. (2015). Exploring the relationship between principal, policy, and gifted program scope and quality. *Journal for the Education of the Gifted*, 38(2), 118-140.

National Association for Gifted Children. (2024). *Initial practice-based professional preparation standards for gifted educators*.
<https://www.nagc.org/resources-publications/resources/standards>

NSW Department of Education. (2025). *High potential and gifted education policy*.
<https://education.nsw.gov.au/policy-library/policies/high-potential-and-gifted-education-policy>

Plucker, J. A., & Callahan, C. M. (2014). Research on giftedness and gifted education: Status of the field and considerations for the future. *Exceptional children*, 80(4), 390-406.

Sergiovanni, T. J., & Green, R. L. (2015). *The principalship: A reflective practice perspective* (6th ed.). Pearson.



FOSTERING GIFTEDNESS IN PRIMARY EDUCATION: CHALLENGES, STRATEGIES, AND THE POWER OF BRANCHING OUT TOPICS

Juliane Walker

Abstract:

This article explores the practical strategies and underlying philosophies essential for identifying and nurturing gifted children within the primary school context. By examining the importance of school culture, early identification, teacher preparedness, and the implementation of innovative branching out topics. The article highlights how schools can provide gifted learners with the support they need to thrive both academically and emotionally.

Introduction:

In schools that genuinely embody the principle that “every child matters” and offer personalised learning, students are actively engaged in constructing knowledge as well as shaping their own identities as confident, and successful learners. Such environments foster positive attitudes among both students and teachers, celebrate achievements, encourage openness to innovation, and promote collaboration within the school team and with the wider community. These schools recognise that supporting gifted children is not simply about academic acceleration, but about seeing and nurturing each child’s individuality, emotional wellbeing and potential.

Understanding and supporting gifted learners



Gifted students are, first and foremost, independent individuals often bursting with curiosity and keen to learn, at times already experiencing frustration and little motivation to apply themselves. It is vital for teachers to develop an understanding of these students’ unique profiles, champion their strengths, and introduce them to new areas of talent.

There are different areas of giftedness that will develop and blossom at different stages and ages in life. However, nobody will argue that between early childhood and becoming a specialist in one's field of expertise, a lot of development must take place. One key factor for development will be to facilitate opportunities for learning and building up students' self-esteem and confidence.

Teaching them critical thinking skills and fostering their curiosity will help them develop into individuals who are keen to explore new talent areas and think outside the box. Furthermore, it may prevent frustration or undesirable behaviours that may arise if their needs are overlooked and not met even at an early age in the education system.

Consider, for instance, the experience of a young student entering the Swiss primary school at age six, having already acquired fluent reading and sufficient writing skills (self-taught). This child is ready to learn and excited to finally go to school. When placed in a Grade One classroom with most students being introduced to letters and numbers, such a child may quickly become disengaged, frustrated and underchallenged, withdrawing from the activities or developing undesirable behaviour patterns. Here, the teacher's ability to recognise these needs and provide differentiated challenges, the possibility of acceleration or the child participating in a gifted program is key to sustaining motivation and emotional balance.

The challenge of identification



Identifying gifted pupils - especially at an early age - is demanding. This is especially the case in an inclusion classroom setting where teachers must deal with ever more different challenges. In some cases, teachers might have only attended an optional module on gifted education, and that is insufficient to recognise and foster giftedness in a classroom setting. In addition

to sufficient training, it takes experience, an open mindset and a lot of commitment to understand the complexity and variety gifted children present.

I still encounter teachers who believe that the traits that identify a child as gifted in a classroom environment are good academic performance, a strong willingness to learn, high motivation, and diligence. Although this may be the case for many gifted students, for some, it should not be taken as a given criterion. Some gifted pupils simply do not want to stand out, they want to be part of the community and fit in. As a result, these students, as well as twice-exceptional learners, underachievers, or those from migrant backgrounds, are overlooked and, due to a lack of additional funding, do not get the opportunity to take part in a gifted program.

The statement that a child is “very good at mathematics” is also frequently used as a selection criterion by classroom teachers. Although this may be the case for some, strong grades at primary level in math may reflect diligence rather than innate giftedness. Never mind the fact that there are other talent areas to consider which are often overlooked.

Rather than relying on snapshots or grades alone, classroom teachers and teachers of gifted education should observe students' ability to recognise patterns, think interrelatedly, and solve problems independently within the classroom and in a one-to-one setting. The younger the child the more difficult the identification process. Short interviews and skill assessments such as reading, writing, and open questions help to identify further interests.

Strategy games like "Pentago" or "Quoridor" can reveal a child's capacity for strategic thought. If a possible gifted profile emerges, both parent and child should complete a standardised questionnaire. These insights will determine whether the child will be invited to join the gifted program. However, any child entering a gifted programme should be given a probation period - typically six months - as all this information is not based on a long-term observation.

Effective identification thus requires experienced educators and a holistic, longitudinal approach. It is vital that the selection process is not just a snapshot.

Implementing Gifted Education in a school context: Programmes and strategies

Gifted education needs a supportive educational setting and mindset for development. Pull-out programmes are one widely used possibility to provide structured opportunities for students to develop talents and be exposed to various talent domains. Offering a wide range of projects in different talent domains, pupils can independently recognise and develop their individual strengths. To ensure that these processes do not take place in a vacuum, clearly defined goals, a comprehensible purpose, a time limit and integration into a publicly visible context are required. Without meaningful challenges and tangible results, it is difficult to promote motivation, self-regulated learning and commitment for any learner.

Teaching is most effective when learning activities are linked to broad, meaningful topics allowing for creativity, exploration and deep engagement. Many gifted primary pupils initially lack the strategies and skills to manage independent projects at a higher level. It is therefore important to explicitly teach problem-solving, self-reflection and thinking skills at an early stage. Trust in supportive teachers, who encourage risk-taking and assure students that challenges are manageable, underpins a positive learning experience and the development of self-confidence.

Benefits of implementing Branching out topics in Gifted Education



Branching out topics begin with a broad, open-ended theme, offering students numerous pathways to explore the material based on their interests and choices. This interactive approach places decision-making in the hands of the learners, allowing each pupil to embark on a unique, non-linear journey within the topic. By making the learning experience

personal and meaningful, this method sustains engagement, ensures relevance, and enhances the retention of knowledge.





To facilitate this, the design thinking method (empathize, define, ideate, prototype, and test) can be applied. A divide between classes focussing on science or language is no longer necessary, as students can and should be exposed to both.

This approach encompasses knowledge acquisition, the introduction of tools and learning strategies, hands-on

experimentation with feedback, and ultimately, independent implementation. By providing creative freedom within clearly defined, time-bound goals, students can learn from mistakes in a protected environment, develop perseverance, and nurture a growth mindset (as described by Carol Dweck). These experiences promote not only talent and foster excellence but also emotional stability, motivation, and resilience. Individual strengths are made visible and can be celebrated.

Practical Application and Structure

In practice, pull-out classes benefit from small groups of students from various grades and abilities.

The branching out model runs as an annual theme. Its flexible structure encourages student-led exploration while providing sufficient guidance to ensure progress and depth. This way, all students build upon a shared foundation of knowledge.

Students are encouraged to ask questions and generate ideas, supporting new skill development. They apply their learning in creative projects, such as escape rooms or quizzes, showcased at school events. The process challenges students to demonstrate creativity, translating what they have learnt into engaging, real-world projects. Each unit deliberately combines scientific and linguistic elements, helping pupils make connections and develop a broad skill set.

The importance of connecting, belonging and breaking the ice



Upon entry, each of my students receives a token of uniqueness as a keepsake. I give students a unique piece of petrified wood symbolising their individuality—the patterns are a reminder that everyone can find their own path and their uniqueness is valued and we talk about it. Building relationships and fostering group cohesion is a key element at the start of the school year. I introduce myself to the class with a poster showing my personal interests and what is important to me. My poster always says: "I never want to stop learning" and "I like learning new things".



We usually reflect and discuss these statements in class. Students then create and present their own poster reflecting their interests and values, as well as creating a group logo, building trust and belonging. The poster also serves as the cover of the research exercise book they create. Already during this unit, skills, time management, and talents can be identified by the teacher. It creates a meaningful and deeper connection to the teacher as he/ she becomes a person with interests and a life beyond the classroom.

Branching out topics that I have successfully used with my students:

Explorers & Escape Room:



This unit immerses pupils in themed explorations and discovery, studying trade routes, navigation, and crew dynamics. Learners investigate the differences between researchers, explorers and adventurers, examining the motivations behind expeditions and the challenges faced, such as navigation, including experiments with food preservation, and sourcing drinking water, experimenting with water filtration and distillation. Exploring historic expeditions such as Columbus' journey to the Americas serves as a springboard for examining trade networks and the influences of language and colonialism, with students working together on puzzles and escape room projects to use and share acquired knowledge and consolidate their learning.



On the topic of discovery, connections to Chinese trade and numbers as a kind of secret mathematical code arose by chance. We then explored it further, examining the structure and Chinese system of numbers in comparison to the Western system. We looked at the Chinese finger counting

system used by traders and turned it into a secret code for fellow students. The lesson was a result of an impulse given by the topic and developed by the students, and was completely unplanned.

Explorations of the world's oceans

This unit includes how the oceans were formed, the water cycle and why seas contain salt, supported by research and experiments. Pupils selected and researched their favourite marine animal and presented their findings. Environmental topics encompass coral reef protection and the effects of global warming.

An engaging example emerged during our exploration of the differences in respiration and diving behaviours between fish and marine mammals, specifically whales. The initial comparison led students to investigate the unique ways these animals breathe and dive underwater. This inquiry naturally progressed to researching the depths to which humans can dive while holding their breath, as well as the limits and risks faced by professional divers.

Students examined in detail the phenomenon of decompression sickness, considering the physiological dangers associated with rapid changes in pressure during ascent. Curiosity then shifted to the remarkable capabilities of sperm whales, which can descend to depths of 2,000 to almost 3,000 metres and remain underwater for up to two hours, despite possessing lungs similar to those of humans. This prompted questions about whether whales need to pause for air like human divers and how their organs withstand such extreme pressure without sustaining damage.

What began as a straightforward comparison between fish and marine mammals developed into a fascinating investigation of evolutionary adaptations in marine mammals. This process, initiated by the students, showcased their ability to drive inquiry and discover complex biological concepts through hands-on research and critical questioning. Another group of my students wrote letters to various dolphin research centres about brain activity.

They, however, had to learn first that a letter to a scientist does not start with: “Hey dude” and how to write an address on an envelope correctly, as they had never done this before. After this learning curve, they received two detailed and fascinating responses from scientists in Florida and Munich.

Children of the world:

Investigates the lives of children worldwide, highlighting differences shaped by continent, climate, language, food and daily routines. This includes practical activities around language diversity, inventions, and instruments, games, and may extend to charity projects addressing poverty. The class joined school fundraising events.

Natural phenomena: Practical investigations



Are explored through hands-on modelling of the Earth's structure, studying continental drift, earthquakes, and volcanoes. Students engage in practical tasks such as building earthquake-resistant structures and volcanic models (using baking powder/vinegar to replicate carbon dioxide reactions), supported by film materials for illustration.

Conclusion: Resilient, motivated and independent learners

When gifted children are immersed in fields that excite and challenge them, they develop deep identification with their learning. They experience themselves as capable, valued individuals, growing more resilient and willing to learn from setbacks. By recognising and celebrating students' successes and integrating these into the broader school context, educators can encourage consistent positive development.

My long-term experience of implementing these methods shows that students not only recognise their strengths and develop independence and confidence, but also begin to question, connect, and extend their understanding. I encourage all educators involved in gifted education to embrace these approaches and welcome feedback from the wider teaching community.

References

Dam, R. F. (2025, July 18). The 5 Stages in the Design Thinking Process. Interaction Design Foundation - IxDF. <https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process>

Dweck, C. S. (2006). *Mindset: the new psychology of success*. Random House.

Floden, T. (2007). Pentago [Board Game] Kosmos

Marchesi, M. (1997). Quoridor [Board Game] Gigamic

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EQUITABLE IDENTIFICATION OF GIFTED REFUGEE STUDENTS: CHALLENGES AND PATHWAYS

Ali M. Alodat

Abstract

The rising global displacement crisis has intensified the challenges faced by refugee children entering new education systems, including the frequent under-recognition of giftedness within this population. Despite a robust body of research addressing the underrepresentation of culturally and linguistically diverse students (CLD) and learners from low socioeconomic backgrounds in gifted programs, significantly less is known about gifted refugee students as a distinct group.

This systematic review synthesizes 26 empirical studies focused on the equitable identification of underrepresented gifted learners to evaluate whether these practices can be effectively transferred to refugee students or whether refugee-specific models are necessary.

Findings show that while universal screening, nonverbal assessments, dynamic assessment, and culturally responsive tools have improved identification outcomes for underserved students, they are insufficient for addressing the unique challenges faced by refugee learners.

A comparative thematic analysis yielded five overarching themes: identification practices, adaptations for identification, identification challenges, the impact of identification processes, and the limitations of identification tools. These themes provide a comprehensive understanding of the current state of equitable identification of gifted refugee students.

Context and Conceptual Background

Equitable identification of gifted students, a process that ensures fair and unbiased recognition of giftedness, remains a central concern within the field of gifted education. Traditionally, identification has relied on standardized tests, IQ measures, and teacher nominations, approaches that have consistently led to the underrepresentation of culturally, linguistically, and economically diverse students (Naglieri & Ford, 2003; Johnsen, 2022). Scholars have long noted that such tools reflect cultural norms, linguistic expectations, and performance histories that do not align with the lived experiences of marginalized populations (Hodges et al., 2022). This has prompted a shift toward multidimensional and culturally responsive identification approaches designed to counteract structural bias.

However, refugee students occupy a uniquely complex position within this discourse. Although they share specific characteristics with other underrepresented groups, such as linguistic transitions and socioeconomic instability, they also experience additional layers of trauma, displacement, and educational disruption that influence how giftedness is expressed (Alodat et al., 2024). Forced migration often results in inconsistent or nonexistent academic records, psychological distress, interrupted schooling, and rapid cultural and linguistic adjustment. These factors make it challenging for traditional identification tools to capture the abilities of refugee learners accurately.

Refugee students, despite their unique challenges, often demonstrate their giftedness through resilience, exceptional problem-solving, leadership in crisis, multilingual communication, or creative adaptability, traits that traditional assessments rarely measure. The gifted education field increasingly acknowledges that giftedness is culturally and contextually embedded, influenced by environment, experience, and opportunity. However, existing identification frameworks remain grounded in assumptions of educational stability and cultural familiarity that rarely apply to displaced populations. Recognizing and nurturing these unique expressions of giftedness among refugee students can inspire hope and optimism in the field of gifted education.

The limited research directly examining gifted refugee students is a critical concern. Most studies addressing equity in gifted identification focus on CLD students, English learners, or low-income learners (Gubbins et al., 2020; Hemmler et al., 2022). While these populations share some barriers with refugee students, they do not fully capture the lived realities of forced displacement. As a result, applying identification practices validated in stable school systems may risk misidentifying or overlooking refugee learners entirely.

Therefore, a crucial question arises: Can the existing evidence base for equitable gifted identification be reliably extended to refugee populations? Or is there an urgent need for fundamentally new frameworks that integrate trauma-informed principles, cultural humility, and flexible indicators of giftedness? This study addresses these questions through a systematic synthesis of empirical research on underrepresented gifted students, emphasizing the pressing necessity for change in our approach to identifying and supporting gifted refugee students.

Method

This study employed a systematic review and comparative thematic analysis to examine identification practices for underrepresented gifted students and their applicability to refugee learners. A comprehensive search was conducted across Google Scholar, ERIC, Web of Science, Scopus, and ProQuest. The search used Boolean combinations of keywords related to gifted identification, underrepresented populations, CLD students, English learners, socioeconomic disadvantage, dynamic assessment, universal screening, and refugee learners.

Inclusion criteria required that studies be empirical, published between 2000 and 2024, written in English, and focused on identification methods for underrepresented gifted students. Studies that were purely theoretical, focused solely on interventions, or lacked identifiable procedures were excluded from the analysis. The search yielded 4,666 records, which were subsequently screened and narrowed down to 26 final studies

The included studies represented diverse identification models, including nonverbal measures, universal screening, local norms, dynamic assessment, teacher rating scales (e.g., HOPE Scale), and performance-based assessments such as the DISCOVER model (Sarouphim, 2002). Some studies explored district-level innovations in identification policy (Mun et al., 2021), while others compared traditional and non-traditional tools (McKinley, 2000).

Two trained research assistants coded each study using inductive thematic analysis following guidelines for trustworthiness in qualitative research (Nowell et al., 2017). More than two thousand initial codes were generated and refined through axial coding into higher-order categories. Five overarching themes emerged: (1) identification practices, (2) adaptations for identification, (3) identification challenges, (4) impact of identification practices, and (5) limitations of identification tools.

Key Findings

The findings of this review demonstrate that while equitable identification practices for CLD and low-income students offer important insights, they do not fully address the complexities faced by refugee learners.

1. Traditional identification methods exclude underrepresented students

Studies consistently showed that standardized IQ tests, achievement assessments, and teacher referrals disproportionately under-identify CLD, low-income, and minority students (Naglieri & Ford, 2003; Hodges et al., 2018). These tools reflect prior learning opportunities and cultural familiarity, making them particularly unsuitable for refugee students whose educational histories are irregular or interrupted.

2. Non-traditional methods improve equity but are insufficient alone

Nonverbal assessments, such as the Naglieri Nonverbal Ability Test, have shown promise for diverse populations (Lewis et al., 2008). Dynamic assessment approaches demonstrated potential for identifying latent giftedness among CLD students (Lidz & Macrine, 2001). Performance-based assessments, such as the DISCOVER model, identified higher percentages of gifted CLD learners than standardized tests and showed cultural fairness (Sarouphim, 2002).

Universal screening and local norms increased equitable access across marginalized groups (Hemmler et al., 2022; Lee & Peters, 2022), offering a promising future for gifted identification. However, even these tools were developed for relatively stable school contexts. Refugee learners, who may experience trauma, inconsistent school attendance, language instability, or limited content exposure, require additional adaptations.

3. Identification adaptations are necessary for equity

Studies recommended flexible cut-off scores, multi-step identification models, and the use of multiple data sources to capture nuanced student profiles (Johnsen, 2021). Expanding conceptions of giftedness to include creativity, leadership, problem-solving, and resilience was emphasized (Kuo, 2022). For refugee students in particular, HOPE scale data highlights the need for culturally adapted teacher rating systems (Alodat et al., 2024), though such systems require stable teacher-student relationships.

4. Numerous challenges limit equitable identification

Across studies, cultural and linguistic biases, a lack of professional development, inconsistent policy structures, and inadequate resources have hindered the identification of equity (Hemingway, 2022; Gubbins et al., 2020). These systemic barriers are magnified for refugee students, who face additional displacement-related challenges such as trauma, mobility, and psychosocial stress.

5. Equitable identification practices yield positive outcomes

When multi-method, culturally responsive identification systems were implemented, underrepresented students gained access to enriched learning opportunities, experienced improved academic engagement, and demonstrated enhanced socio-emotional well-being (Gubbins et al., 2020; Mun et al., 2021). These benefits, though promising, have not been meaningfully extended to refugee populations due to limited research and inadequate assessment models.

Practical Implications

Findings from this study highlight several important implications for educators, policymakers, and researchers.

First, identification frameworks must become trauma-informed and context-responsive. Refugee students require assessment systems that recognize how displacement, trauma, and linguistic transition affect performance. Such systems should focus on potential rather than prior achievement, integrating dynamic assessment, performance tasks, and culturally situated evaluations.

Second, educators must receive specialized professional development that addresses trauma, cultural humility, and the diverse manifestations of giftedness among refugee students. Teachers play a central role in rating scales, classroom observations, and qualitative assessments; thus, training is essential for minimizing bias and improving accuracy.

Third, national and district-level policy reform is critical. Identification procedures must explicitly include refugee students within definitions of underrepresented gifted populations, mandate universal screening, and require flexible cut-offs and multiple data sources.

Fourth, research partnerships between universities, ministries, and humanitarian organizations are needed to validate assessment tools and explore culturally grounded markers of giftedness in refugee communities.

Finally, adopting a broader conception of giftedness, as recommended by talent development scholars (VanTassel-Baska, 2021), is essential for recognizing the adaptive, creative, and leadership traits exhibited by refugee learners.

Conclusion

This study reveals that although existing identification practices for underrepresented gifted students offer valuable insights, they are insufficient for accurately capturing the abilities of refugee learners. Refugee students live within contexts marked by trauma, cultural displacement, and disrupted educational experiences, conditions that require assessment models fundamentally different from those developed for stable school environments. While nontraditional assessments and culturally responsive strategies enhance equity, they must be adapted to reflect the unique psychosocial and educational realities of displaced learners.

There is an urgent need for trauma-informed, culturally grounded, flexible, and multidimensional identification systems that prioritize potential over past performance and acknowledge diverse expressions of giftedness. Addressing this gap is both an academic and moral imperative, essential for ensuring that gifted refugee students receive the recognition, opportunities, and support they deserve.

References

- Alodat, A. M., Gentry, M., & Lee, H. (2024). Validity evidence of the HOPE Teacher Rating Scale-Arabic version for identifying gifted refugee students. *Gifted Child Quarterly*, 68(4), 251-263
<https://doi.org/10.1177/00169862241256047>
- Gubbins, E. J., Siegle, D., Peters, P. M., Carpenter, A. Y., Hamilton, R., McCoach, D. B., Puryear, J. S., Langley, S. D., & Long, D. (2020). Promising practices for improving identification of English learners for gifted and talented programs. *Journal for the Education of the Gifted*, 43(4), 336-369. <https://doi.org/10.1177/0162353220955241>
- Hemingway, S. (2022). Referral, identification, and retention of underrepresented gifted students. *International Journal for Talent Development and Creativity*, 10(1-2), 205-216.
<https://doi.org/10.7202/1099953ar>
- Hemmler, V. L., Azano, A. P., Dmitrieva, S., & Callahan, C. M. (2022). Representation of Black students in rural gifted education: Taking steps toward equity. *Journal of Research in Rural Education*, 38(2), 1-25.
- Hodges, J., Mun, R., & Rinn, A. (2022). Disentangling inequity in gifted education: The need for nuance in racial/ethnic categories, socioeconomic status, and geography. *Gifted Child Quarterly*, 66(2), 154-156.
<https://doi.org/10.1177/00169862211040533>
- Hodges, J., Tay, J., Maeda, Y., & Gentry, M. (2018). A meta-analysis of gifted and talented identification practices. *Gifted Child Quarterly*, 62(2), 147-174.
<https://doi.org/10.1177/0016986217752107>
- Johnsen, S. K. (2021). *Identifying gifted students: A practical guide (3rd ed.)*. Routledge.
<https://doi.org/10.4324/9781003235682>
- Johnsen, S. K. (2022). *The assessment standard in gifted education: Identifying gifted students. In NAGC Pre-K-Grade 12 Gifted Education Programming Standards (2nd ed.)*. Routledge.
- Kerr, B. A. (2017). *Resilience and gifted children. In Teaching Gifted Children*. Routledge.
- Kuo, C. (2022). Expanding the conception of giftedness to talent development. *Gifted Education International*, 38(3), 438-444.
<https://doi.org/10.1177/02614294211062298>
- Lee, L. E., & Peters, S. J. (2022). *Universal screening: A process to promote equity. In Handbook on Assessments for Gifted Learners*. Routledge.
- Lewis, J. D., DeCamp-Fritson, S. S., Ramage, J. C., McFarland, M. A., & Archwamety, T. (2008). Selecting for ethnically diverse children who may be gifted using Raven's Standard Progressive Matrices and Naglieri Nonverbal Abilities Test. *Multicultural Education*, 15(1), 38-42.
- Lidz, C. S., & Macrine, S. L. (2001). An alternative approach to the identification of gifted culturally and linguistically diverse learners: The contribution of dynamic assessment. *School Psychology International*, 22(1), 74-96.
<https://doi.org/10.1177/01430343010221006>
- McKinley, D. R. (2000). *An investigation of the concurrent validity of the SAGES-P Reasoning subtest, the SABE, and the MAT-SF...* (Doctoral dissertation). University of South Carolina.
- Mun, R. U., Ezzani, M. D., Lee, L. E., & Ottwein, J. K. (2021). Building systemic capacity to improve identification and services in gifted education: A case study of one district. *Gifted Child Quarterly*, 65(2), 132-152. <https://doi.org/10.1177/0016986220967376>
- Naglieri, J. A., & Ford, D. Y. (2003). Addressing underrepresentation of gifted minority children using the Naglieri Nonverbal Ability Test (NNAT). *Gifted Child Quarterly*, 47(2), 155-160.
<https://doi.org/10.1177/001698620304700206>



Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria.

International Journal of Qualitative Methods, 16(1), 1-13. <https://doi.org/10.1177/1609406917733847>

Sarouphim, K. M. (2002). DISCOVER in high school: Identifying gifted Hispanic and Native American students. *Journal of Secondary Gifted Education*, 14(1), 30-38. <https://doi.org/10.4219/jsge-2002-385>

VanTassel-Baska, J. (2021). A conception of giftedness as domain-specific learning: *A dynamism fueled by persistence and passion*. In R. J. Sternberg & D. Ambrose (Eds.), *Conceptions of giftedness and talent* (pp. 443-466). Springer International Publishing. https://doi.org/10.1007/978-3-030-56869-6_25

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HIDDEN STRENGTHS, OVERLOOKED NEEDS: LESSONS FROM PARENTS OF TWICE-EXCEPTIONAL CHILDREN IN IRELAND

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Authors' Note

All italicized quotations in this article represent illustrative examples drawn from aggregated parent comments in the CTYI study. They are paraphrased to reflect common themes and sentiments expressed by participants, not verbatim excerpts. Correspondence concerning this chapter should be addressed to Keri Guilbault at kguilba1@jhu.edu.

Hidden Strengths, Overlooked Needs: Lessons from Parents of Twice-Exceptional Children in Ireland

Some children seem to exist in two completely different worlds at the same time. They might solve complex problems long before their classmates but struggle to finish written work. They are bursting with curiosity and creative ideas, yet they are also dealing with anxiety or have trouble focusing. These children are known as twice-exceptional (i.e., 2e), students who are both gifted and have a disability or learning difference. Parents of 2e children know the paradox well: their child's advanced thinking can mask learning disabilities, while those same challenges can hide giftedness.

In systems designed to notice one or the other (but rarely both), these children often go unseen and underserved. At the Centre for Talented Youth Ireland (CTYI) at Dublin City University (DCU), we sought to examine the experiences of families raising twice exceptional children.

Despite growing international scholarship on twice-exceptionality, Irish parents' voices and perspectives remain absent from the literature. Our recent study represents the first effort to capture these experiences within the Irish context.

Centre for Talented Youth – Ireland

The Centre for Talented Youth Ireland (CTYI) at Dublin City University is Ireland's only formal organization dedicated to serving gifted children and adolescents. CTYI provides academically stimulating experiences while supporting students' social and emotional needs. The self-funded organization serves approximately 6,000 students annually through its DCU hub and regional centres nationwide (Dunne et al, 2025).

Students are identified through the Talent Search process or educational psychologist referral. Ireland lacks systematic policy frameworks for recognizing gifted and twice-exceptional learners, who remain underserved (Cross et al., 2022). While Ireland's 1998 Education Act included "exceptional ability," this was removed in subsequent legislation. The EPSEN Act (DES, 2004) has a narrow definition of special educational needs, only referring to learning restrictions due to disability. Neither Ireland's National Council for Special Education (NCSE) nor the National Council for Curriculum and Assessment (NCCA) provide adequate guidance for twice-exceptional learners. The NCCA's (2008) draft guidelines for gifted students, while supporting school policy development, failed to provide sufficient classroom practice guidance (O'Reilly, 2018). Given this gap in research and policy support, our study examined the experiences of twice-exceptional learners and their families within the Irish education system.

Our Study

We invited parents of twice-exceptional children aged 6–12 who attended CTYI enrichment programs in the summer of 2025 to share their perspectives through an anonymous online survey. Each of these children had been identified as gifted through CTYI talent-search testing or by a psychologist and had at least one diagnosed learning difference such as autism, ADHD, dyslexia, or developmental coordination disorder (DCD). Parents (N = 232) answered questions about what kinds of special education and gifted education services their children receive in school, how many hours of support are provided each week, and how satisfied they are with those services. Open-ended questions also invited parents to describe, in their own words, what is and is not working for their twice-exceptional child in Ireland's schools.

A Snapshot of Twice-Exceptional Learners in Ireland

Nearly two-thirds of the children had been diagnosed with autism, one-third had ADHD, and over one-quarter had dyslexia. Many had multiple diagnoses, in fact, more than half of families reported two or more disabilities, with some noting up to six co-occurring conditions. Other commonly reported diagnoses included dyspraxia, sensory processing disorder, and anxiety. This diversity reflects what many families experience worldwide: twice-exceptionality rarely fits neatly into a single category. These children require integrated, flexible supports that address both their cognitive strengths and their learning differences or social-emotional challenges. Yet, parents' comments revealed confusion about terminology and lack of access to such services. Some were unsure whether their child's diagnosis qualified for educational support, while others said professionals had downplayed giftedness because the disability was the priority.

What Irish Schools Provide—and What They Don’t

When we asked about special education support, roughly two-thirds of parents said their child received some help at school. Most of those services amounted to just one to two hours per week, usually in small-group or pull-out sessions. When we asked about gifted education, however, the story changed dramatically. Only 1 in 5 children received any gifted education services in school, and nearly three-quarters received none at all. Even among the few who did, most received only one or two hours per week. In other words, twice-exceptional children in Ireland are three times more likely to get support for their disabilities than for their gifts, despite both profoundly shaping their educational needs.

How Parents Feel About School Services

When asked to rate their satisfaction on a 5-point scale, parents expressed broad frustration with both special education and gifted education services, though the gap between the two was large (See Table 1). Even families whose children did receive gifted services showed only modest satisfaction (average score just above 3, or “neutral”). In comments, parents described the school’s focus on deficits (e.g., remediation, therapy, and compliance) rather than challenge and enrichment.

Table 1
Parent Satisfaction Levels

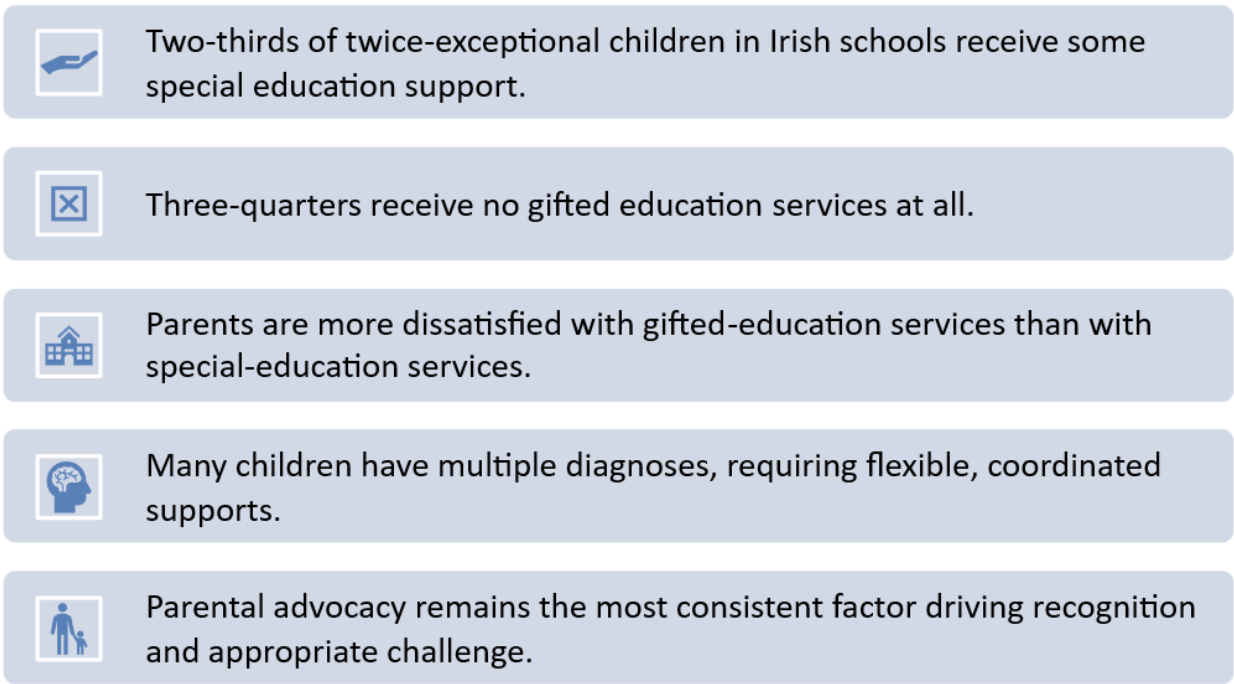
Type of Service	N	Mean Rating	Interpretation
Special Education – All Responses	232	2.75	Slightly below “neutral”
Gifted Education – All Responses	111	2.12	Clearly “dissatisfied”
Gifted Education – Receiving Services	44	3.07	“neutral”

Note. Parents rated the statement using a 5-point Likert scale.

Parents as Advocates and Interpreters

Parents told us they had to educate the educators about twice-exceptionality. For example, one parent of a 10-year-old female student said, “I feel like I have to constantly explain my child to the school. They don’t see how she can be both ahead and struggling. It’s exhausting having to fight for her needs to be understood.” Parents described hours spent coordinating reports between psychologists, teachers, and therapists, or having to prove that their child needed both support and challenge. This dual advocacy role can be emotionally exhausting (Guilbault et al., 2024). Parents reported feeling dismissed when raising concerns about their child’s gifted education needs or blamed when their child’s behaviour reflected unrecognized frustration. See Figure 1 for key findings from the study.

Figure 1. Key Findings



As mentioned previously, there is no national gifted education policy and no dedicated government funding for gifted programs in Ireland. The absence of policy has practical consequences, as illustrated by our study’s findings. There are no teacher training requirements on giftedness or 2e and no standardized identification procedures in schools. Without statutory obligations, awareness and support depend largely on individual school leadership and teacher initiative. For now, programs like CTYI remain the only nationwide option for advanced learners.

Recommendations

Addressing only the disability component of twice-exceptionality, while neglecting advanced learning needs and student strengths, has lasting consequences. Children who receive constant intervention for their learning differences, but no enrichment or acceleration may internalize a sense of deficiency rather than potential.

Some of the youngest students in our study, as young as age six, were already showing signs of frustration and boredom at school, as reported by their parents. Others noted that their child's creative ideas were dismissed as off task or disruptive. The path forward lies in integration: strength-based education that addresses both giftedness and disability together. Based on our findings and the collective wisdom of the families we heard from, here are four key steps for schools to take to support twice-exceptional students:

1. Create integrated student support plans, such as an Individualized Education Plan (IEP), for all 2e students that address both giftedness and disability.
2. Provide teacher training on twice-exceptionality.
3. Acknowledge giftedness and 2e in national education policy.
4. Encourage parent partnerships and advocacy through regular communication.

This research represents the first large-scale look at parent perspectives on twice-exceptionality in Ireland. The message from families is clear and consistent – children thrive when schools see the whole picture. Twice-exceptional learners need educational experiences that challenge their intellect while supporting their differences.

Parents need professionals who listen, respect their insight, and share responsibility for advocacy. The Irish experience demonstrates what happens when policy frameworks fail to address twice-exceptionality – thousands of students are left to navigate education systems that recognize only half of who they are. Yet, these families' experiences also show that meaningful change is achievable.

Regardless of national context, progress begins with a fundamental shift in recognizing that twice-exceptionality encompasses both strengths and challenges.

References

- Cross, J. R., Cross, T. L., & O'Reilly, C. (2022). *Irish gifted students: Self, social, and academic explorations*. Centre for Talented Youth Ireland and Center for Gifted Education at College of William and Mary. Available at <https://www.dcu.ie/ctyi/irish-gifted-students-self-social-and-academic-explorations>
- Department of Education and Science (DES). (2004). Education for persons with special educational needs act. *Department of Education and Science*. <http://www.irishstatutebook.ie/eli/1998/act/51/enacted/en/print.html>
- Dunne, O., O'Reilly, C., & O'Hara, J. (2025). Positive discoveries: Identity development and the experiences of gifted LGBTQ+ students in Ireland. *Gifted and Talented International*, 1-14. <https://doi.org/10.1080/15332276.2025.2518162>
- Guilbault, K. M., Eckert, G., & Szymanski, A. (2024). Caregiver perceptions of the social and emotional characteristics of gifted children from early childhood through the primary school years. *Roeper Review*, 46(4), 265-281. <https://doi.org/10.1080/02783193.2024.2392096>
- National Council for Curriculum and Assessment (NCCA). (2008). *Exceptionally able students: Draft guidelines for teachers*. National Council for Curriculum and Assessment. Available at https://ncca.ie/media/1975/exceptionally_able_students_draft_report_on_the_consultation_2008_.pdf
- O'Reilly, C. (2018). Gifted education in Ireland. *Gifted Child Today*, 41(2), 89-97. <https://doi.org/10.1177/1076217517750701>

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DESIGNING WITH PURPOSE: APPLYING THE ADIC MODEL IN AI-POWERED GIFTED EDUCATION

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Abstract:

In the context of teaching gifted students or those with dual exceptionalities, particularly in the context of AI and digital learning, additional attention should be paid to their special needs, as well as greater flexibility in instruction. The ADIC (Almekhlafi Digital Interactive Content) Model, developed and validated by Almekhlafi in the year 2020, is a four-step research-based instructional design model. The model can cope with gifted education in an AI context by enabling teachers, instructional designers, and curriculum developers to design and develop interactive digital content adaptable to gifted education.

The model has four phases (Plan, Design, Create, and Evaluate), comprising flexibility, combining teaching and learning theories, multimedia design, and learner-centered instructional delivery methods, which are instrumental to gifted education.

As the model stresses accuracy and flexibility concerning the utilization of state-of-the-art digital tools and AI in designing the digital learning content, it extends the opportunities for creative and high-quality digital content empowered by AI and other technologies. Thus, it encourages the incorporation of differentiation of real-time and responsive feedback, as well as individual and adaptive, data-driven instruction, tailored to all learning and teaching environments.

In gifted education, this is particularly important, as it fosters the design of digital interactive content that aligns with higher-order, deep, and enriched thinking skills, as well as rigorous and creatively exploratory tasks.

The keywords:

Gifted Education, ADIC Model, Instructional Design, AI Integration, Interactive Digital Content, Personalized Learning.

Introduction

The progress in Artificial Intelligence is leading to a paradigm shift in relation to the creation, storage, and distribution of learning resources, including digital interactive content. Gifted students with high abilities often find themselves at the threshold of ordinary educational methods. The educational needs of such students are differentiated in terms of the learning amenities offered by the institution and the emotional and cognitive processing models.

The ADIC Model has informed the development of digital interactive content to address learners' needs, considering their skills and abilities, learning styles, and individual differences. Research acknowledges the straightforward applicability of the ADIC Model due to its iterative nature (Almekhlafi, 2020). The four different phases of the model guarantee the systematic design and development of learning and teaching digital interactive content. It emphasizes the integration of advanced technology, leading to interactivity and effective application of pedagogy (Almekhlafi, 2020).

Contrary to conventional linear design models, such as ADDIE, ADIC reduces inflexibility in planning, design, production, and evaluation cycles. Such flexibility is crucial in the case of gifted learners, whose needs are dynamic and constantly changing, and demand prompt feedback and self-correcting adjustments. However, the primary purpose of ADIC has been built on the idea of providing interactive digital content as opposed to the other models; its four stages are malleable, flexible, and interconnected to facilitate change and rapid implementation, making it ideal for the use in the field of gifted education, where needs and intellect are the primary considerations, and the content must be suitable, accommodating, and morally sound (Almekhlafi, 2022). The following outlines the ADIC model as an adaptable **Framework for Gifted Education**:

1. Planning: Alternative Planning; Design with Complexity in Mind

The Planning phase establishes the foundation of developing the instructional interactive digital content by assessing the learner's needs and prioritizing the goals. In a gifted education case, the advanced learner profile should be incorporated in the planning by:

- Compacting of a curriculum and acceleration to eliminate redundancy,
- Conformity to global standards established by the NAGC or WCGTC,
- Making sure that the composition of SMART goals entails the formulation of clear outcomes, including the various goals set for gifted individuals.
- Involving stakeholders (teachers, parents, and counselors) in the planning process.
- Selection of a suitable theoretical framework, such as constructivism or UDL, that could inform curriculum mapping for gifted education.
- Involving gifted learners in co-planning, which will lead to autonomy and metacognition, supporting the principles of talent development and learner empowerment.

2. Design: Structuring to Depth and Divergence

The design stage converts the vision into a formal architecture of learning. This involves:

- Building higher-order thinking activities based on the skills of analysis and evaluation as well as synthesis.
- Designing avenues of innovative problem-solving that swing towards divergent thinking.
- Designing an open-minded and adaptable plan that encourages self-paced and independent learning.

At this stage, designing accessibility-based and usability-based storyboards, concept maps, and interface designs for the interactive digital content is the focus of the model. For gifted learners, this would entail designing non-linear tracks, offering students a choice, and providing more intellectually stimulating opportunities. It can be seen in the outlines and screen design elements that underpin the importance of creative autonomy and intellectual risk-taking. When applied reflectively, AI tools can build adaptive processes and customized solutions. Nevertheless, all the design decisions must be centered on the instructional outcomes and goals as related to gifted education.

3. Production: Bringing Instruction to Life

In the Production phase, when tailored to gifted learners, the designed blueprint is transformed into the enjoyable digital interactive experiences that involve:

- Simulations that are interactive, real-life problem-solving, and scenario-based learning.
- Gamification that is enhanced through mastery tracking and the discovery of self-guided exploration.
- Generative AI tools that focus on inquiry and creativity.

As this phase focuses on integrating various technologies, including software and app integration, collaboration tools, and interactive assessments, with gifted education, these technologies, including AI, could lead to high-quality interactive, inclusive content, ensuring accessibility and addressing the needs of twice exceptional and multilingual learners. This is based on the application of multimodal textual assistance, including speech-to-text, visual mapping, and translation.

4. Evaluation: Reflection and Feedback Formulation

The Evaluation phase is a process of constant evaluation and reflection to make sure the developed content is of high quality. It includes summative evaluation, piloting, and revision. For gifted learners, the content should encompass more than merely content evaluation for enhancement. Elements and features related to gifted learners should be evaluated in the developed digital interactive content, such as the socio-emotional fit, the correspondence or lack thereof between the learner's interests and motivation, and the developed digital interactive content.

For gifted contexts within AI-enhanced digital content, this step could include formative self-assessment, peer reviews, and AI-supported analytics for progress monitoring and enrichment suggestions. For teachers, adaptive dashboards display cognitive peaks, moments of frustration, and revision iteratively. AI can build personal instructional courses with great skill, identify

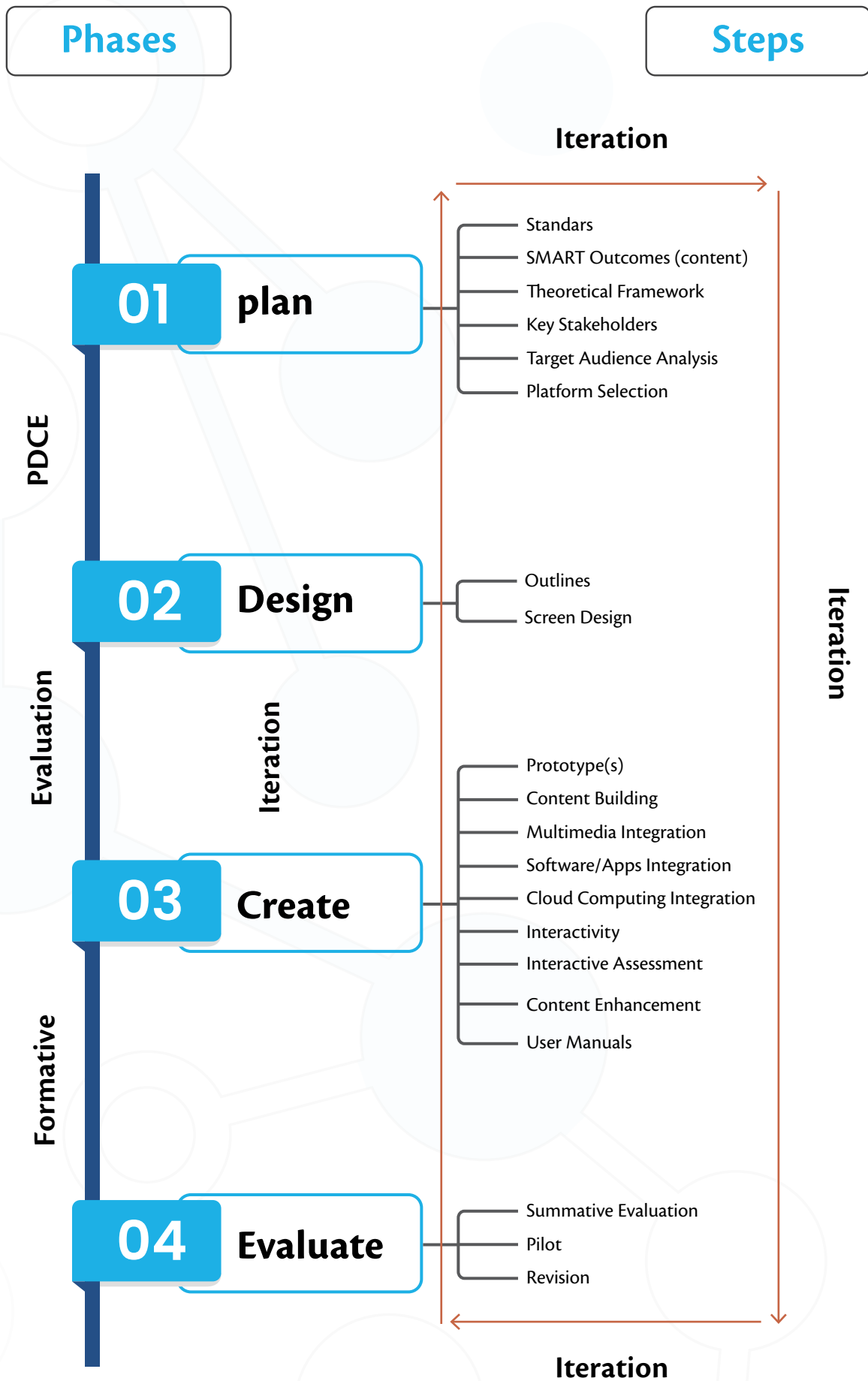


Figure 1. ADIC Model Phases and Steps

Conclusion: Designing with Impact, Intention, and Integrity

Interactive learning and instructional strategies are not successful solely by having interactive elements; rather, they succeed when these elements are integrated into the planned strategy. When correctly developed and implemented, interactive content can transform education, positively affect learners at different levels of the learning process, and deliver information in a way that changes learners rather than merely enlightening them (Daffrin, 2024).

DIC Model is a statement of a value system that incorporates human-centeredness, equity, excellence, and innovation in the pedagogical framework. As the AI in the field of education has transformative capacity, the model will ensure that gifted students are not left behind, as they will be included in increasingly rigorous and challenging integrated learning experiences through developing AI-enhanced digital content that advances with them as they progress.

ADIC is an active model that empowers teachers, instructional designers, and curriculum developers with the authority to contribute to changes in education, rather than merely reacting to them. For gifted students, it means there is available material at an adjusted challenge level that can be used to nurture them.

Combined with AI, ADIC is significantly able to drive innovations in:

- Extensible opportunities for enrichment.
- Accurate learning processes.
- Analytics caused early talent recognition.
- Challenging and Psychologically Safe Educational content.

Based on the ADIC philosophy, intentionality and integrity are essential to support students with exceptional abilities in fostering positive innovation that meets their needs. Integrated learning experiences provide the opportunity to tap into untapped potential, as does a clear vision.

In this sense, ADIC, when applied to gifted education, serves as a digital framework and a philosophy that perceives and empowers learners, instructors, designers, and content developers as creators and innovators for intelligent, interactive digital content. The opportunities are unlimited.

References

Almekhlafi, A. G. (2020). Designing and creating digital interactive content framework: Description and evaluation of the Almekhlafi digital interactive content model. *Science Education International*, 31(2), 130–141.

Almekhlafi, A. G. (2022).

ADIC: Hands-on Guide for Designing and Developing Digital Interactive Content (English Version). Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences, in partnership with the International Task Force on Teachers for Education 2023, hosted by UNESCO.

Daffrin (2024). The Ultimate Guide to Designing Interactive Course Content. Retrieved from <https://blog.braincert.com/the-ultimate-guide-to-designing-interactive-course-content/>

Fellinger, K. (2025). Create Digital Learning Content: A Step-by-Step Guide. Retrieved from <https://www.knowledgeworker.com/en/blog/create-digital-learning-content>



FROM POTENTIAL TO TALENT: HOW PARENTS NURTURE EARLY GIFTEDNESS

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Introduction

Parents are the earliest and most consistent facilitators of their child's talent development. The home is where curiosity, language, and motivation first take root, before formal schooling. In Gagné's Differentiated Model of Giftedness and Talent (DMGT), gifted potential refers to natural abilities that can be transformed into developed talents through practice, opportunity, and support (Gagné, 2004, 2020).

Contemporary perspectives show that excellence develops over time when children have access to rich resources, coaching, and psychosocial skills such as persistence and self-regulation (Subotnik, Olszewski-Kubilius, & Worrell, 2011). Everyday family routines, such as shared reading, open-ended play, and dinner conversations, are powerful growth levers.

Why Parents Matter

From a DMGT perspective, the family context operates as an environmental catalyst that converts potential into talent by providing rich language, targeted feedback, optimal challenges, and motivational support (Gagné, 2004, 2020). Motivation is shaped by adults' responses to effort and mistakes. When parents treat errors as information and normalize struggle, children are more likely to adopt a growth mindset and persevere despite difficulties (Dweck, 2012; Haimovitz & Dweck, 2016).

Parents also play a vital role in advancing equity in identification and support for their children. Many advanced learners from low-income and minoritized groups remain under-identified (Plucker & Peters, 2016). Simple steps, such as documenting observations, maintaining a small portfolio, and communicating regularly with teachers, help schools recognize strengths and match instruction to readiness. Universal screening, in particular, increases the participation of underrepresented students in gifted programs (Card & Giuliano, 2016).

Strategies for Implementing Support at Home and School

1) Designing enriched experiences for young learners

They read and talked together daily using open-ended questions. Keep a rotating set of open-ended materials, such as puzzles, art supplies, musical instruments, STEM kits, books, and inexpensive recyclables, to invite exploration and problem solving. Plan brief field experiences to libraries, museums, and parks, followed by reflections and small “make-and-share” projects.

Digital maker tools, such as Scratch, can help shift technology use from consumption to creation (Resnick, 2017). The aim is to provide an optimal challenge by pitching tasks just beyond current mastery, consistent with both the DMGT and the zone of proximal development (Gagné, 2004, 2020; Vygotsky, 1978). Public libraries and community organizations broaden access to mentors and informal STEM experiences and provide cost-effective enrichment (Bell, Lewenstein, Shouse, & Feder, 2009; Plucker & Peters, 2016).

2) Encouraging motivation and a growth mindset

Emphasize the process over the person. Praise effort, strategies, and planning rather than ability labels such as smart. Pair feedback with short reflection prompts like “What did I try?” and “What will I try next?” to build resilience (Dweck, 2012; Gunderson et al., 2013).

Provide autonomy within the structure by offering choices among tasks, protected time for deep interests, and clear expectations with supportive guidance.

These practices align with research on basic psychological needs for autonomy, competence, and relatedness and help sustain motivation and well-being across development (Deci & Ryan, 2000; Ryan & Deci, 2017).

3) Collaborating early with educators

Collaboration should begin before challenges escalate. Share observations and a simple portfolio of work samples and interests to inform screening and placement (Pfeiffer, 2015). Inquire about universal screening, flexible grouping, curriculum compacting, enrichment, and subject or whole-grade acceleration (Colangelo, Assouline, & Gross, 2015; Rogers, 2007). Agree on specific goals and periodic progress reviews so that adjustments can be made quickly and efficiently. Research shows that grouping and acceleration, when guided and monitored, are effective options for reducing disengagement (Steenbergen-Hu, Makel, & Olszewski-Kubilius, 2016).

4) Building self-regulation and executive functions

Predictable routines, visual schedules, and checklists should be used. Model planning aloud by setting goals, breaking tasks into steps and estimating time. Gradually extend the focus with short work periods, followed by movement or imaginative play. Teach coping and self-monitoring to address perfectionism, which can undermine performance and well-being (Flett & Hewitt, 2014). Strong executive functions enable children to benefit from advanced curricula without undue stress (Diamond, 2013; Neihart, Pfeiffer, & Cross, 2016).

5) Ensuring balanced and purposeful technology use

Prioritize platforms that promote creation, such as programming, digital drawing, and building, rather than passive scrolling. Children should be supported in setting achievable goals, sharing products with authentic audiences, and connecting with mentors and community resources. Balance intensity with sleep, relationships, unstructured play, and monitored screen time (Resnick, 2017; Neihart et al., 2016).

Conclusion

Parents play a vital role in transforming early gifted potential into sustained growth by shaping opportunities, mindsets, and support at home and in partnership with schools.

The strategies outlined here—enriched experiences, process-focused motivation, early collaboration, executive-function development, and purposeful technology use—translate evidence into daily practice. When families and educators work together, more children receive the right level of challenge, informed guidance, and motivation that turns early potential into long-term achievement.

References

- Assouline, S. G., Colangelo, N., VanTassel-Baska, J., & Lupkowski-Shopluk, A. (Eds.). (2015). *A nation empowered: Evidence trumps the excuses holding back America's brightest students* (Vol. 1). Belin-Blank Center.
- Bell, P., Lewenstein, B., Shouse, A. W., & Feder, M. A. (Eds.). (2009). *Learning science in informal environments: People, places, and pursuits*. National Academies Press.
- Card, D., & Giuliano, L. (2016). Universal screening increases the representation of low-income and minority students in gifted education. *Proceedings of the National Academy of Sciences*, 113(48), 13678–13683.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- Diamond, A. (2013). Executive functions. *Annual Review of Psychology*, 64, 135–168.
- Dweck, C. S. (2012). *Mindset: Changing the way you think to fulfil your potential*. Little, Brown.
- Dweck, C. S., & Yeager, D. S. (2020). A growth mindset about intelligence. In G. M. Walton & A. J. Crum (Eds.), *Handbook of wise interventions: How social psychology can help people change* (pp. 9–35). Guilford Press.
- Flett, G. L., Hewitt, P. L., Oliver, J. M., & MacDonald, S. (2002). Perfectionism in children and their parents: A developmental analysis. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 89–132). American Psychological Association.
- Gagné, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High Ability Studies*, 15(2), 119–147.
- Gagné, F. (2020). Differentiating giftedness from talent: *The DMGT perspective on talent development*. Routledge.
- Gunderson, E. A., Gripshover, S. J., Romero, C., Dweck, C. S., Goldin-Meadow, S., & Levine, S. C. (2013). Parent praise to 1- to 3-year-olds predicts children's motivational frameworks 5 years later. *Child Development*, 84(5), 1526–1541.
- Haimovitz, K., & Dweck, C. S. (2016). What predicts children's fixed and growth intelligence mindsets? Not their parents' views of intelligence but their parents' views of failure. *Psychological Science*, 27(7), 859–869.
- Neihart, M., Pfeiffer, S. I., & Cross, T. L. (Eds.). (2016). *The social and emotional development of gifted children: What do we know?* (2nd ed.). Routledge/Prufrock Press.
- Pfeiffer, S. I. (2015). *Essentials of gifted assessment*. Wiley.
- Plucker, J. A., & Peters, S. J. (2016). What research-supported interventions help address excellence gaps? The Center for Gifted Studies, Western Kentucky University.
- Plucker, J. A., & Peters, S. J. (2016). *Excellence gaps in education: Theory, research, and practice*. Harvard Education Press.
- Resnick, M. (2017). *Lifelong kindergarten: Cultivating creativity through projects, passion, peers, and play*. MIT Press.
- Rogers, K. B. (2007). Lessons learned about educating the gifted and talented: A synthesis of the research on educational practice. *Gifted Child Quarterly*, 51(4), 382–396.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Press.
- Steenbergen-Hu, S., Makel, M. C., & Olszewski-Kubilius, P. (2016). What one hundred years of research says about the effects of ability grouping and acceleration on K–12 students' academic achievement: Findings of two second-order meta-analyses. *Review of Educational Research*, 86(4), 849–899.
- Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2011). Rethinking giftedness and gifted education: A proposed direction forward based on psychological science. *Psychological Science in the Public Interest*, 12(1), 3–54.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.



CALL FOR ARTICLES

We would like to invite you to write an article for the WorldTalentWeb newsletter. The theme and writing style are open for the author to determine.

Articles could take the shape of an interview with a specialist in the field, a report on research or a recent event, a book or resource review etc. The guidelines for the article are listed below.

Please submit your article to the following email: WorldTalentWeb@ha.ae

Guidelines for submitting an article for the WorldTalentWeb newsletter:

1. A submitted article should be between 800 to 2000 words, not including references.
2. WorldTalentWeb newsletter caters to the international community and thus, all articles should be written in English.
3. American or British spelling is accepted.
4. All non-native English speakers should make sure to check their articles for language accuracy before submitting them.
5. The article should be in Times New Roman font, size 12 pt.
6. Authors should avoid using footnotes.
7. Authors should adhere to the APA style and/or formatting guidelines provided in the APA Manual, 7th Edition.
8. The article should be submitted with embedded photos, and tables, and figures if relevant.
9. The article should be submitted as an email attachment as a Microsoft Word document.
10. Articles should be word-processed and single-spaced with 1 inch (2.54 cm) at the top, bottom, left, and right of every page as per the APA 7th edition requirements.
11. Authors should strictly observe the copyrights-requirements and cite the work of others correctly.
12. Relevant permission should be obtained if photos of people are used. An email giving permission to use photos publicly is sufficient.
13. Authors should include their full name, title, institutional affiliation, and a high-resolution color photo.
14. If an article was published before elsewhere, then only submit a summary of the original document with acknowledgment.
15. Authors are encouraged to use supportive pictures.
16. The editorial team reserves the right to edit articles accepted for publication.



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