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# **Identification of gifted students in different global contexts: literature review**

*By*

**Dr.**

**Mansour Shubrum Alsuwailimi**

**Ministry of Education, Riyadh, Saudi Arabi**

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**Dr. Mansour Shubrum Alsuwailimi (\*)**

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### **Abstract**

The process of identifying gifted students plays a vital role in the nurturing and development of such students as providing appropriate educational opportunities that match their abilities and address their needs depends on proper identification. This paper examines the issue of identifying gifted students in different global contexts by reviewing relevant literature and analysing the procedures used in a range of educational systems. It highlights the practices and procedures used for the identification of giftedness in five countries: Singapore, Malaysia, Finland, the United States (US) and Australia. These countries were selected to provide insights into the influence of a range of factors, including different beliefs, philosophies, policies, ideologies, economic situations and priorities. While many identifying practices differ from country to country, they are consistent in contributing to caring for gifted students. Notably, the country's policy and philosophy, culture and beliefs play a key role in the field of gifted education.

**Key word:** Identification, gifted students, global context.

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(\*) Ministry of Education, Riyadh, Saudi Arabi.

## التعرف على الطلاب الموهوبين في سياقات عالمية مختلفة: مراجعة الأدبيات

د/ منصور السويلمي<sup>(\*)</sup>

### مستخلص الدراسة

تلعب عملية اكتشاف الطلاب الموهوبين دوراً حيوياً في رعاية هؤلاء الطلاب وتمييزهم، حيث إن توفير الفرص التعليمية المناسبة التي تتناسب مع قدراتهم وتلبي احتياجاتهم تعتمد على التحديد السليم. تتناول هذه الورقة مسألة تحديد الطلاب الموهوبين في سياقات عالمية مختلفة من خلال مراجعة الأدبيات ذات الصلة وتحليل الإجراءات المستخدمة في مجموعة من الأنظمة التعليمية. ويسلط الضوء على الممارسات والإجراءات المستخدمة لتحديد الموهبة في خمس دول: سنغافورة وماليزيا وفنلندا والولايات المتحدة وأستراليا. وقد تم اختيار هذه البلدان لتقديم نظرة ثاقبة حول تأثير مجموعة من العوامل، بما في ذلك المعتقدات والفلسفات والسياسات والأيديولوجيات والأوضاع الاقتصادية والأولويات المختلفة. في حين أن العديد من الممارسات التعريفية تختلف من بلد إلى آخر، إلا أنها تتسق في المساهمة في رعاية الطلاب الموهوبين. ومن الجدير بالذكر أن سياسة الدولة وفلسفتها وثقافتها ومعتقداتها تلعب دوراً رئيسياً في مجال تعليم الموهوبين.

**الكلمات المفتاحية:** التعرف، الطلاب الموهوبين، السياق العالمي.

(\*) وزارة التعليم، المملكة العربية السعودية، الرياض.

**Introduction:**

Various countries around the world see investment in gifted education as key to global competition (Laili et al., 2020; Chan, 2018). However, each country's policy for gifted education reflects their philosophy, culture, and beliefs, which play key roles in this field. This can be seen in the practices and procedures that are followed in different national contexts in order to identify gifted children, the range of gifts that they are able to identify, and the nature of the provision and services provided to students identified as gifted. Some countries adopt a more inclusive approach that considers a wide variety of domains of giftedness whilst others demonstrate a narrower focus on limited domains, such as a high ability in mathematics and science (Györi, 2011). Giving extra attention to gifted children also raises questions about how other children are treated, and how to identify gifted students who will receive such attention, providing appropriate educational provisions to meet their needs and develop their gifts. For example, some countries simply take the students who perform the best in examinations, and provide them with special provisions, while others emphasise differentiation for all students by supporting them based on their individual ability, as will be shown through the examples below. The following sections outline the practices and procedures for the identification of giftedness in five countries from different parts of the world: Singapore, Malaysia, Finland, USA, and Australia. These countries have been selected in order to provide a range of different beliefs, philosophies, policies, economic situations, and priorities. Whereas Singapore and Malaysia offer examples of how a centralised approach may be carried out in different contexts. Finland and Australia

offer very different examples of decentralized approaches, and the USA offers an example of vast internal diversity of approaches to gifted education within one nation, as legislation, associated resources, and practices vary from state to state. These global examples are provided below in order to allow for a more extensive understanding of the practices and procedures used to identify gifted students worldwide.

### **Research Objectives:**

- 1- To review practices and procedures for identifying gifted students in different global contexts.
- 2- To recognize the impact of economic factors, beliefs, philosophies, policies, ideological and cultural factors, and national priorities on the process of identifying and nurturing gifted students.

### **Research Terminology:**

**Gifted students** are defined as "those students who are identified as possessing demonstrated or potential abilities that give evidence of high performing capabilities in intellectual, creative, specific academic or leadership areas, or ability in the performing or visual arts and who require services or activities not ordinarily provided by the school in order to fully develop such capabilities." (Council of State Directors of Programs for the Gifted, 1999, p. 18)

### **1- Singapore:**

Singapore is a densely populated, multi-cultural city-state in South-East Asia, bordering Malaysia and Indonesia. It has a population of around 6 million people. The largest ethnic group in Singapore is Chinese, at 74.3%, followed by Malay and Indian at 13.4% and 9.1%, respectively (CIA, 2024). Education in Singapore is strongly influenced by Confucian

values which emphasise the importance of working hard, and a good working environment (Neihart & Teo, 2013). Children are therefore seen as equal in potential, but with different rates of development and motivation (Neihart & Teo, 2013). Following independence in 1965, Singapore transformed to a “highly developed and successful free-market economy” (CIA, 2024). Singapore now has one of the world’s fastest growing economies, with a higher per capita Gross Domestic Product (GDP) than many Western European countries (Neihart & Teo, 2013). The rapid economic transformation of Singapore from ‘Third World’ to ‘First World’ status within three decades may be seen as driven by the nation’s focus on education as a vital component of development (Yeo & Pfeiffer, 2018). (Spring, 1998) refers to this focus on education as a catalyst of economic growth: “schooling for economic growth”(Spring, 1998, p. 56).

Singapore is widely known worldwide for its impressive education system (Alqassab, 2020; Lee et al., 2013; Tan et al., 2016). (Neihart and Teo, 2013) explain that education is a strong national priority, which may be because Singaporeans generally believe that education and a strong work ethic are at the core of the nation’s development and are responsible for their economic strength. Csermely (2010) suggest that his may be seen to make Singapore a “gift-nurturing state” and “gift-nurturing society”, where giftedness is highly valued in official state messaging and is regularly discussed in the media, for example with The Straits Times newspaper often publishing entire articles about giftedness. Students in Singapore are generally taught by well-trained teachers and schools are equipped with the latest technical and computer facilities. The aim of the Ministry of Education, which oversees the development of the entire system, is stated to be to help students “discover their own talents, to make the best of these talents, to...realise their potential, and to develop a passion for learning” (Ministry of Education Singapore, 2023).

Singapore is among the top 5 in the world, according to PISA comparisons, and in the top 3 according to the Trends in International Mathematics and Science Study (TIMSS) (Neihart & Teo, 2013; OECD, 2018). According to (Neihart and Teo, 2013), this reflects Singapore's valuing of each pupil as equal, pushing every child to work hard in an approach that they describe as "not as Chinese as China or as Western as England"(Neihart and Teo, 2013, p. 291), aligning with an incremental view of ability in which anything is possible with hard work and persistence. Arrangements for gifted students in Singapore reflect these cultural values and beliefs by prioritising a good standard of education for all students and allowing them the time to show their potential. Consequently, the identification of gifted pupils in Singapore may be seen to allow time for all pupils to find their "hidden gifts", showing the importance of providing all pupils with the right environment to develop their gifts and talents (Neihart & Teo, 2013, p. 291). Furthermore, it is argued to be a "moral obligation" for parents, teachers, and students to allow time for these gifts to emerge, meaning that there is less emphasis on early identification (Neihart & Teo, 2013, p. 291). In this vein, it may be seen that Singapore has "openly declared themselves merit-based" (Mandelman et al., 2010, p. 289).

The Singaporean education system is based on meritocracy, where "access to educational opportunities is and should be provided based on ability and accomplishments (merit)" (Mandelman et al., 2010, p. 288), and can be seen to impact on the pragmatic centralised, top-down educational system in place in Singapore. Thus, gifted education programmes are open to students who are seen as having displayed sufficient merit through their

test results to receive those resources, leading to fierce competition between students to access gifted education (Chua, Morck & Yeung, 2022; Cavanagh, 2005; Ginsburg et al., 2005). In this way, Singapore's gifted identification procedures focus on finding the top 1% of students based on talent, regardless of family background (Györi, 2011). However, although the Singapore education system depends on defining 'merit' by high-risk test results, this may be seen as a flawed method, potentially failing to identify some gifted students due to their poor performance on the test day for reasons outside of their control such as illness or family issues.

The Singapore educational system primarily focuses on preparing students for high stakes examinations. Consequently, teachers in Singapore dedicate much time to training their students concerning how to maximise their performance in these tests. Indeed, appropriate test preparation has been recognised as a significant element of educational contexts characterised by the identification of merit via high stakes testing (Neihart & Tan, 2016). In Singapore, preparing and practicing for examinations has become a notable element of 'testing culture' with teachers and families emphasising the importance of good quality preparation and training for tests. This is manifested, for example, by the growth of profit-based tutoring institutions for exam preparation, with many families paying tutors in order to prepare their children for exams (Tan, 2017).

The "screening for giftedness" takes place at the end of Grade 3, when all students take locally designed national examinations, with the top 1% going forward to the Gifted Education Programme (Neihart & Teo, 2013, p. 291). Examinations are conducted in two stages: screening, and then selection. All children take the first exam in English language and mathematics in August, with the top scoring 8% of students invited to take another test in English



language, mathematics, and general ability in October (Ministry of Education Singapore, 2023). This results in around 500 students each year attending the Gifted Education Programme at a choice of nine primary schools, each of which offers the same programme of curriculum enrichment focused on mathematics and scientific technology (Ministry of Education Singapore, 2023). This might be seen to indicate that processes for the identification of gifted students in Singapore are strongly influenced by the economic priorities of the country, with gifted students being identified in subjects that are perceived to help Singapore to achieve economic growth and development such as mathematics and science (Caleon & Subramaniam, 2008, Lee, & Ho, 2022).

Students who do not progress to the Gifted Education Programme at the end of Grade 3 have another opportunity to determine their appropriate educational path based on their performance in the Primary School Leaving Examination (PSLE). While PSLE examination scores do not allow students to enter the gifted programme, they can be streamed into Express, Normal (academic), or Normal (technical) courses (Ministry of Education Singapore, 2023). Parents may also choose to enter their children for individual examinations with a registered psychologist who uses IQ tests to screen for Exceptionally Gifted Children, although this is a rare distinction at around three children per 100,000 (Ministry of Education Singapore, 2023).

As with many other Asian nations, gifted education in Singapore focuses on STEM subjects (Chan, 2018). As a result, focusing on Singaporean students' excellent performances in recent international tests, such as the Programme for International Student Assessment (PISA), might be seen as ignoring the fact that artistic gifts may still be seen as not being appreciated highly enough in the Singaporean context: "the arts were accorded low priority, given the view that scarce national resources should be diverted to develop the fledgling economy, reflecting the ideology of pragmatism and survival" (Kong & Yeoh, 2003, p.

174). However, some critics have expressed concerns that Singapore's education system should pay attention to students who are gifted in other domains than those of maths, science, technology, and languages that have been emphasised in recent years (Lee et al., 2013).

## **2- Malaysia :**

Malaysia is in South-East Asia and borders Brunei, Indonesia, Singapore and Thailand. Its population is over 31 million people. The largest ethnic group at 61.7% includes Malay and indigenous people, followed by Chinese and Indian at 20.8% and 6.2%, respectively (CIA, 2024). Classed as an “upper middle-income country”, its economy has developed since the 1970s, and is gradually including high-tech and skilled services (CIA, 2024). Malaysia’s search for gifted children was therefore seen as part of its move away from relying on its natural resources as it develops human resources (Aziz et al., 2021, Fields, 1997). More recently, however, the Malaysian Ministry of Education has emphasised the development of every child’s potential (Yassin et al., 2012, Shakir & Ali, 2021). This change reflects the Malaysian Ministry of Education seeing the development of higher-ability students as part of its educational philosophy.

In light of this philosophy, the Malaysian government has developed a national strategy for the more effective nurturing of gifted students, the Malaysia Education Blueprint 2013-2025, that seeks to provide a roadmap for better identifying gifted students and providing for their needs within expanded gifted programmes. Other Asian economies, such as Hong Kong, Singapore, and South Korea, have successfully grown in recent years, partly thanks to governmental investment in the development of education, and gifted education in particular, which may be seen as functioning as an

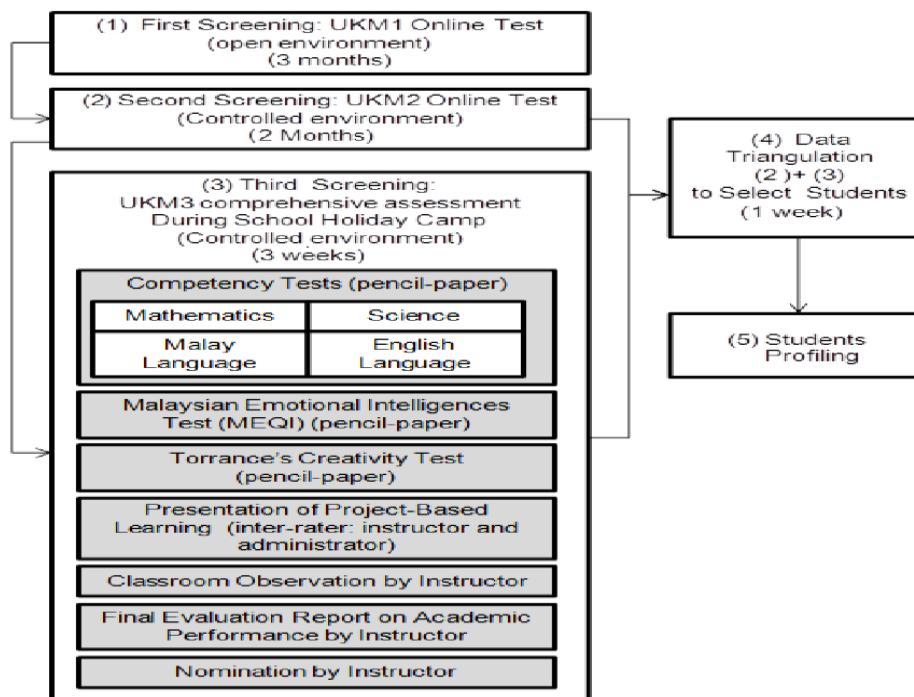
inspiration for Malaysia. The following quotation from the Malaysia Education (Malaysia, 2012) Blueprint 2013-2025 demonstrates this:

“As Malaysia becomes a developed economy, grooming top talent will become increasingly important towards achieving our growth objectives. Competitive Asian economies, such as Hong Kong, Singapore, and South Korea, employ education for gifted students as a driver of human capital development and national innovation. These countries provide an education for gifted children” (Malaysia, 2012, p. 4).

Malaysia has previously performed below average on TIMSS, and did not participate in the recent PISA study, but the 2015 TIMSS results show improvements which put Malaysia near to the top third of countries (Mullis et al., 2016). This improvement is reflected in increased spending of around 5% of the Gross Domestic Product (GDP) on education (The World Bank, 2018). Gifted education starts with assessment by the Malaysian National Gifted Centre, known as PERMATApistar. They use a series of three standardised tests for students between the ages of nine and fifteen years old in order to identify gifted students (Ishak & Bakar, 2017).

The three tests, known as UKM1, UKM2 and UKM3, each focus on assessing a different element of intelligence or ability. UKM1 aims to assess a child's intellectual verbal and non-verbal reasoning. UKM2 seeks to assess a student's creativity, reasoning, learning potential, attention, verbal abilities, and concentration span. UKM3 is a comprehensive assessment covering a range of subject areas such as mathematics, science, and languages (Ishak & Bakar, 2017). UKM1 is the first step in the process of identifying gifted students. The test, which is undertaken in open conditions, can be undertaken in either the English or Malay language, and is online based (Noriah et al., 2009, Ibrahim et al., 2017).

The second test, UKM2, is undertaken in controlled conditions at an official testing centre at any point during a two-month period. The test assesses a child's speed of processing, reasoning, and organisation, as well as attention and concentration, and can also be undertaken in either English or Malay. The third test, UKM3, unlike UKM1 and 2 which are undertaken by computer, is carried out using pen and paper, covering sciences, mathematics, and languages. This final test also includes sections concerning the Malaysian Emotional Quotient Inventory (MEQI), which assesses the child's emotional intelligence, and the Torrance Tests of Creative Thinking. During a three-week school holiday camp, students are observed by the teachers during teaching and learning activities, and a presentation based on a group project, and a final academic achievement report, written by an academic instructor, as shown below (Ishak & Bakar, 2017).



**Figure 1:**  
**The Model of the Blended Assessment of Gifted and Talented Identification System**

In addition to identifying high ability students, these tests have been designed and standardised in order to help identify under-represented students with exceptional potential (Yassin et al., 2012). This shows how the Malaysian education system is informed by the belief that gifted children may come from different backgrounds and ethnic groups, emphasising the importance of searching for gifted students across all sectors of society, and developing their skills and abilities.

### **3. Finland :**

Finland is in Northern Europe and borders Norway, Sweden and Russia. Its population is over 5.5 million people. Finns are the largest ethnic group at 93.4%, followed by Swedes at 5.6% (CIA, 2024). This means that education in Finland has little need to differentiate in terms of language or cultural differences, though at the same time, Finland must keep up with its well-developed neighbours, and shares traditional Scandinavian values such as using special education “as a means of looking after its weakest members”, for example, pupils with learning difficulties (Tirri & Kuusisto, 2013, p. 86). Official educational policy in Finland aims to equalise educational opportunities, meaning that gifted students are typically taught in the same classrooms as their peers of all abilities, without any attempt to separate students into different classes depending on their abilities (Boettger, 2015).

Educational legislation in Finland does not pay explicit attention to gifted students. However, legislation does recognise individual differences and permits schools to organise teaching in a decentralised way according to age level and pupil ability at each school (Tirri & Kuusisto, 2013). This allows for teaching to be more differentiated as schools have been

encouraged to develop their own more individual curricula. This facilitation of the differentiation of education may be seen as benefiting gifted students since teachers are more able to design teaching material according to the individual needs of their students. In accordance with this decentralised system, there are no official procedures in Finland for identifying gifted students, nor official definitions of giftedness (Boettger, 2015). One exception is the early entrance to school, where psychological and medical tests are required (Mönks et al., 2005; Tirri & Ubani, 2005).

Following the end of the Second World War, Finland transformed into a “diversified modern industrial economy” (Heinonen & Hytti, 2016, p. 150). It now has one of the highest per-capita incomes in the world. The government’s key priorities are “high quality education, promotion of equality, and a national social welfare system” (CIA, 2024). The Finnish government thus prioritises education and can afford high-quality education for all children, with public sector educational institutions receiving strong financial support from the government. Researchers working in Finland have concluded that “no significant differences exist in teaching quality between public and special schools” (Tirri & Kuusisto, 2013, p. 84). The high quality of Finnish education can be seen in international comparisons, with Finland consistently scoring in the top 3 countries in the PISA studies as the highest-achieving country in Europe (Ustun et al., 2022). Since all schools are regarded as very high quality and able to meet the needs of all pupils, there is very little emphasis on the identification of gifted students in Finland, and most pupils simply attend their nearest school (Mönks et al., 2005, Federick, 2020). Instead, teachers have a wide range of differentiation options to challenge or support every pupil as needed. Some researchers have suggested

that this reflects Finland's principles of fairness and equality and trust in teachers to support pupils by using differentiation to meet every pupil's needs (Rissanen et al., 2018).

Since special schools are rare and teacher judgement is so important for meeting pupils' needs, Finland requires highly skilled teachers who also share national values of equality and fairness. All teachers are required to have a master's degree, indicating a considerable level of professional competence among Finnish teachers (Rissanen et al., 2018; Sahlberg, 2010, Lavonen, 2018). However, the emphasis on the equality of educational opportunities in Finland does not always mean that all pupils' needs must be met in the same classroom. Acceleration, such as taking advanced classes or skipping a school year, can sometimes be chosen by teachers as the best form of differentiation, which may be seen to support (Tirri and Kuusisto, 2013) claim that "the Finnish educational system is highly developed with regard to gifted education, even though it is not referred to in such terms" (Tirri and Kuusisto, 2013, p. 88). It can therefore be argued that Finland sees itself as effectively nurturing the potential of all students through differentiation, and therefore does not need to separately prioritise the gifts of gifted students through identifying and labelling them. This indicates that, despite the fact that gifted students are not explicitly made reference to in Finnish education policy, it can still be seen that the needs of gifted students, alongside all of their peers, are taken into account in the flexible Finnish education system (Laine et al., 2016, Kuusisto, Laine, & Rissanen, 2021).

While Finland and Singapore both enjoy top scores in international competitions, such as PISA, which has led to their global reputation as successful educational systems, they differ considerably in their

approaches. While Finland has focused on improving student attainment by recruiting highly trained teachers who are then given more freedom in the classroom to choose appropriate materials and topics to facilitate student learning as they see fit and provide every student with an equal opportunity to develop their learning by differentiation. Singapore has achieved a similar level of educational excellence in a very different way - by the centralisation of the teaching process and strict high stakes testing.

#### **4. USA :**

The USA has a population of over 326 million people. It borders Canada and Mexico and is relatively ethnically diverse. 72.4% of the population identify as white, with black being the next largest group at 12.6%, and Asian at 4.8% (CIA, 2024). Gifted education in the USA has been strongly influenced by changing national priorities as America has developed as a global superpower. It can be said that the USA has a long history in gifted education. Gifted education is thought to have originated in the USA, with gifted programmes dating back to 1868, with the earliest efforts to educate gifted students in public schools in St. Louis, while what may have been the first school for gifted students opened in 1901 in Worcester, Massachusetts (Bhatt, 2011). IQ tests were developed in the USA in the early 1900s, mainly to help select military recruits to build a strong army for global conflict. The Stanford-Binet was published in 1916 by Lewis Terman, the “father of the gifted education movement”, and is seen as “forever changing intelligence testing and the face of American education” (National Association for Gifted Children, 2021).

Similarly, extra funding and attention for students in the USA gifted in mathematics or science came as a response to the Soviet Union launching



the Sputnik in 1957, which created concerns for American politicians that the USA was less technologically advanced than its primary enemy during the Cold War (Ford, 2012). As a consequence of this anxiety, interest in gifted education increased in the USA as a means to ensure the rapid technological development of the nation, and to outdo Soviet engineering (Pfeiffer, 2002). In this way, gifted education in the US has changed as national priorities have changed. Embracing the idea of identifying and challenging its gifted students (VanTassel-Baska, 2018), the USA educational policy came to fuel the advancement of the research movement in gifted children, alongside a remarkable expansion in gifted programmes in schools across the nation. The first definition of a gifted child was put forward in the Marland Report to Congress in 1971, before being updated in the No Child Left Behind Act of 2001:

“Students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services and activities not ordinarily provided by the school in order to fully develop those capabilities.”

(The White House, 2001, p. 535)

As well as addressing such national priorities for supporting gifted children, education in general is well-funded overall with the USA spending per student being one of the highest in the world (National Center for Educational Statistics, 2018). However, there is no unifying policy for gifted education for the entire country. Policies for identifying gifted children vary by state. (McClain and Pfeiffer, 2012) conducted a study to identify the methods used to identify children who may be gifted across the whole nation. They found that only 32 states had a policy for identifying gifted

students, the other states allowed each school district to set its own policies. The results of (McClain and Pfeiffer, 2012) study reveal that a combination of seven methods (intellectual domain (IQ), performance, achievement, creativity, nominations/referrals, behavioural checklists, and rating scales) are typically used for identifying gifted students in the USA, but the combination of these methods can vary between states. Not every state requires IQ testing, but all states do require more than one method to be used. There are also differences between the funding for gifted education programmes available within different geographic and socioeconomic regions in the USA, which has been noted to generate inequalities of access to educational resources between different groups (Baker, 2001; Baker & Friedman-Nimz, 2004, Card & Giuliano, 2016). It might be seen that the finance and resources gap between states leads to some gifted students enjoying greater advantages and attention than those residing in a different area. Recently, the priorities of educational organisations in the USA have begun to focus on social justice, emphasising identification and support for gifted children from under-represented groups, such as “students in poverty, from racial and ethnic minority groups, English learners, and those with disabilities” (National Association for Gifted Children, 2021).

According to the National Association for Gifted Children (NAGC) in the USA, “States typically follow a systematic, multi-phased process for identifying gifted students to find students who need services beyond the general education program” (National Association for Gifted Children, 2020). The first phase is the more qualitative process of 'screening', and the second phase is the more quantitative process of 'testing or selection' (McBee et al., 2016, Johnsen, 2021). This reflects how the USA has moved

from a focus just on IQ test scores as quantitative information (Mönks et al., 2005; Worrell, 2009, Jolly, 2018) to recognising the value of more qualitative tools, such as teacher rating scales (Nicpon & Pfeiffer, 2011). This shift may be indicative of the conviction of the educational authorities in America of the inadequacy of quantitative tools alone in identifying gifted students, and quantitative and qualitative tools working better in an integrated manner to achieve this goal (Lo & Porath, 2017).

The first step of screening is based on teacher or parent nominations. This step is used to identify students who should proceed with further assessment, and those who should not (McBee et al., 2016). Students that are nominated through this phase are allocated to the 'talent pool' (Jarwan, 2013), which is seen as an economic technique for saving cost and time. However, this stage can result in the identification of some gifted students being missed (McBee et al., 2016), for example, if a screener does not have a thorough awareness of the characteristics of gifted students (Pierce et al., 2006). It is therefore necessary to investigate teachers' beliefs, expectations, and stereotypes before such nomination occurs (Jarwan, 2013), because, even in the presence of official guidelines concerning the identification of giftedness, stereotypical thoughts can affect how teachers decide to make nominations (Siegle, 2001, Johnsen, 2022). For example, if a teacher sees giftedness only in terms of achievement, they might overlook underachieving gifted students. In more extreme cases, prejudices about ethnicity or gender could limit a student's chances of being nominated (Siegle et al., 2010). Indeed, it has been shown that students have been excluded from gifted programme nominations based on negative attitudes to ethnicity, socio-economic background (Elhoweris, 2008, Biber, et al., 2021), or even negative attitudes about gifted children as a group (Geake & Gross, 2008).

After the screening step has identified students with potential, the second step of testing is carried out. This step is considered to be an assessment able to confirm whether a student is gifted or not. The final decision about whether a student is to be officially recognised as gifted and therefore gain access to gifted education programmes, is made on the basis of this stage. This assessment includes quantitative data about the student who has passed the initial screening by using tests such as Stanford-Binet, WISC, and Naglieri Ability Tests (Pfeiffer, 2002). This process of testing is intended to accurately determine an individual's talent and help to choose the appropriate programme for supporting them in nurturing any gifts they may have (Heller & Hany, 2004, Robinson, Shore, & Enersen, 2021).

## **5. Australia :**

Australia is one of the largest countries in the world but, with just over 22 million people, is one of the most sparsely populated. It is an advanced market economy with a high GDP and fast growth, in part because it is well-located for competition with Asia. Its ethnic groups are predominantly white, with the majority English at 25.9%, followed by Australian at 25.4%. Other significant minorities include Irish, Scottish, Italian, German, Chinese, Indian, Greek and Dutch, while around 0.5% identify as aboriginal Australians (CIA, 2024). The challenges of education in Australia therefore meet diverse needs across long distances, respecting cultural sensitivities, and remaining competitive in the region (Crossley et al., 2015).

The field of gifted education in Australia is still relatively new. Australia's first national conference on gifted education in Melbourne in 1983, followed by the formation of the Australian Association for the Education of the Gifted and Talented (AAEGT) in 1985, may be considered

as the beginnings of the gifted education field in Australia (McCann, 2005, Kronborg, & Cornejo-Araya, 2018). In 2001 an inquiry report in the Australian senate concerning the education of gifted children attempted to put new emphasis on the importance of identifying gifted students and providing support for their gifts to grow and flourish (Collins, 2011). This report acknowledged that gifted students may be left at a disadvantage if the education system does not offer consistent and appropriate academic challenges (Rogers, 2007, Callahan, Moon, & Oh, 2017).

However, Australia to this day continues to lack a uniform approach for the identification of gifted children (Parliament of Victoria, 2012). Such inconsistencies may be seen in variations between states, since the Australian constitution gives autonomy to state governments with regards to decisions concerning gifted education, with some differences also existing between different districts within states (Slater, 2018). It is generally the responsibility of individual schools to either interpret state policies or to develop their own school-specific policies where state policies simply do not exist, as is often the case regarding the identification and nurturing of gifted learners (Jarvis & Henderson, 2012). The national curriculum produced by the Australian Curriculum, Assessment and Reporting Authority (ACARA) has a Gifted and Talented Students section, where it is stated that “Gifted and talented students are entitled to rigorous, relevant and engaging learning opportunities drawn from the Australian Curriculum and aligned with their individual learning needs, strengths, interests and goals” (Australian Curriculum, n.d., para. 1). However, alongside such statements there is no clear guidance regarding how gifted children may be identified.

Some Australian states have formed their own policies for gifted provision. New South Wales (NSW) is the only Australian state that has a policy that begins to underline the importance of identifying gifted students (Slater, 2018). The Policy and Implementation Strategies for the Education of Gifted and Talented Students declares that “teachers, with support, have a responsibility to identify the gifted and talented students in their classes” (New South Wales Department of Education and Training, 2004, p.7). However, even this lacks much specificity regarding the actual processes that teachers might use to identify gifted learners in their classrooms.

For example, teachers in New South Wales are required to "use a combination of subjective and objective procedures to identify students of high potential" (New South Wales Department of Education and Training, 2004, p. 11). As a result of this flexible and unspecified approach to giftedness identification, the educational provisions given to gifted pupils in Australia combine varied approaches in the absence of any defined framework: gifted students might be taught on special programmes, grouped by ability, or receive differentiated teaching within a regular classroom. Furthermore, ‘pull-out’ services that involve gifted students being taken out of regular classes to take part in an enrichment activity related to their particular gifts are sometimes used in Australian primary schools to meet the needs of gifted students (Walsh & Jolly, 2018). The state of Victoria’s parliament (2012) has even officially recognised that there is no consistent approach for the identification or education of gifted students across and as such, few educational bodies in Australia are explicit about how they assess gifted students. As (Walsh and Jolly, 2018) show, on a theoretical level, the permitting of individual schools to develop their

own gifted education provisions in Australia could mean that schools are better able to flexibly cater for the needs of the particular gifted students who come their way, as in the Finnish model reviewed above. However, in reality, on the ground in Australian schools, this “nonmandatory approach, with little oversight or evaluation from educational authorities, has meant that despite pockets of excellence, gifted education in Australia remains fragmented and inconsistent” (Walsh & Jolly, 2018, p. 87).

### **Conclusion:**

Although many identifying practices are different from country to country, they are consistent in contributing to caring for gifted students. This paper highlights the findings of other scholars in the field of gifted education, demonstrating that there is enormous variability globally with regard to how giftedness is conceptualised, identified and nurtured (Subotnik & Rickoff, 2010, Maker, 2021). Each of the countries addressed above, regardless of income, have increased spending on education in recent years. However, this paper has shown how each of these countries also have different priorities ranging from identifying and supporting and developing the potential of all students across multiple domains, to identifying and nurturing specific talents in mathematics and science. Whereas Singapore and Malaysia both tend towards the latter orientation, investing in the economically valuable subject areas of mathematics, science, and engineering as protection against natural resources running out, and a way to catch up with other developed countries and improve their global competitiveness. Meanwhile, Finland exemplifies an egalitarian approach to education that attempts to equitably nurture the varied abilities of different students across multiple areas, giving

specialized attention to each individual learner. Australia and the USA represent a less uniform mix of both orientations, varying between the different states of each nation.

**Recommendations:**

- 1- Policymakers and educationalists should seek to benefit from the experiences of developed countries in identifying gifted students.
- 2- Policymakers and educationalists should expand the process of identifying gifted students to incorporate diverse aspects of giftedness, not only those related to the sciences, and ensure comprehensive provision of support.
- 3- Research is needed to examine the perspectives of students and teachers concerning the processes of identifying giftedness, focusing in particular on the most significant challenges to address them and improve identification.



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