Chapter 2
Following a Plan: Pursuing a Model of Giftedness

*The artist is nothing without the gift, but the gift is nothing without work.*

**Abstract** Similar to the job each airline crew member needs to perform in preparation for a flight take-off, a school district also needs to pursue an action plan for identifying and educating its gifted students. This plan is commonly referred to as a ‘model’ or ‘framework.’ Because numerous international models of gifted identification exist, a school district must choose one that best addresses their particular student population and is inclusive to encourage participation from underserved populations. To make an informed decision about what model to select, members of the gifted identification screening committee need to prioritize criteria for identifying and educating their population of students who demonstrate characteristics of giftedness. They also need to consider how to develop these characteristics in all children to produce high learning performance.

**Keywords** High performance learning framework · Diagnostic approach · Differentiated model of gifted and talent (DMGT) · Identification · Multiple criteria · Developing provision · Three-ring conception of giftedness · Staff development · Tannenbaum’s Sea Star model

### 2.1 Flight Plan

Every airline crew member has a job to do in preparation for a flight takeoff. The mechanic conducts a final inspection of the engine and motors as the luggage is loaded onboard. Flight attendants stroll down the aisle to ensure everyone is in their correct seat with a seatbelt secured around their waist. The pilot inspects the instrument panel in the cockpit and communicates with the control tower for
permission to taxi down the tarmac. Each crew member plays a critical role in the teamwork required to put the flight plan into action for a successful takeoff.

School districts also need to pursue an action plan for identifying and educating gifted students. This plan is commonly referred to as a ‘model.’ Because numerous international models for gifted identification exist, a school district needs to choose one that best addresses their particular student population. To make an informed decision about what model to select, members of the gifted identification screening committee need to prioritize criteria for identifying and educating their population of exceptional learners who demonstrate a potential for giftedness.

The following four well-known identification models exemplify different approaches, yet support multiple components for identifying the potential for high performance capability in all cultural groups and across all economic strata. Reflecting prominent theories of high ability or giftedness, these models are inclusive, rather than exclusive.

2.2 Four Identification Models

An identification model worth introducing first is the Dr. Joseph Renzulli Three-Ring Conception of Giftedness. Gifted and talented children are defined as those individuals who possess, or are capable of developing, a composite of traits and can then apply them to any potentially valuable area(s) of human performance. Renzulli emphasizes giftedness can be found in certain people (not all people), at certain times (not all the time), and under certain circumstances (not all circumstances). This comprehensive and widely accepted, world-renowned model focuses upon a combination of three components that need to exist simultaneously for a student to be identified as ‘gifted’ that are not reliant upon an IQ score [1]:

1. Creativity
2. Task Commitment
3. Above Average Intelligence (Fig. 2.1).

The Three-Ring Conception of Giftedness Model has been updated as ‘Operation Houndstooth.’ The houndstooth background reflects the interactive influences of personality and environment: Optimism; Courage; and Romance with a topic or discipline; Sensitivity to human concerns; Physical/Mental Energy and Vision/Sense of destiny [2] (Fig. 2.2).

A second model for consideration is the Dr. Abraham Tannenbaum Sea Star Model [3], which represents a psycho-socio approach to giftedness. Although somewhat restrictive in its consideration for specifying five main factors for giftedness, the model goes beyond general and specific abilities of an individual by suggesting ground-breaking changes of providing an enriched curriculum for all children. Tannenbaum proposed to maximize chances of children reaching their full potential by exposing them to a broad range of information and experiences. This was a radical idea for its time [3] (Fig. 2.3).
Tannenbaum’s Model examines additional areas to represent a holistic approach of giftedness that includes specific ability, environmental, chance, non-intellective, and general ability factors as illustrated by the five tentacles of the Sea Star. Similar to the Renzulli Three-Ring Conception of Giftedness Model in which all three circles must be present simultaneously in an individual to signify giftedness, all five areas must also be present in Tannenbaum’s Sea Star Model for giftedness to develop. Importantly, this five-point model influenced many educators to examine the complexities of giftedness because it enabled an infinite combination of possibilities to be created. A deficiency in any one area cannot be offset by the other four. In comparison to the other four areas, ‘Chance Factors’ presents an interesting component because of its uncontrollable and unpredictable nature in the identification process of giftedness.

Tannenbaum’s Sea Star Model allows for an individual’s potential to become critically acclaimed performers or exemplary producers of ideas and exhibits
elements that are both static (as the child is now) as well as dynamic (as the child learns and develops). This model does not assign more value or weight to any one particular area or ray of the sea star [3].

A third internationally known gifted identification model is Gagné’s Differentiated Model of Giftedness and Talent (DMGT). According to Professor François Gagné, an individual is considered gifted if they possess and use their untrained and spontaneously expressed superior natural abilities in at least one domain. These abilities are commonly referred to as ‘aptitudes’ or ‘gifts.’ Gagné recognized gifted underachievers who may not be working to their full potential. Because of attention paid to distinguishing between ‘gift’ and ‘talent,’ this model has been a forerunner for models in the field of gifted education [4] (Fig. 2.4).

Gagné’s model supports the idea that all talents are developed from natural abilities and from learning that is influenced by both inner and outer catalysts. Although the model has been refined several times over the past years, the main components of ‘Natural Abilities’ and ‘Talent’ remain the same. He offers the following list of categories in which school-aged children may excel to demonstrate their exceptional intelligence: Academics; Arts; Business; Leisure; Social Affection; Sports and Technology. In addition, Gagné also presents a list of four domains reflecting natural abilities in children that are mostly genetically determined: Intellectual Abilities (reasoning, judgment, memory, sense of observation, and metacognition); Creative Abilities (inventiveness, imagination, originality, and fluency); Socio-affective Abilities (perceptiveness, communication, empathy, tact, and influence) and Sensorimotor Abilities (sensitivity, strength, endurance, coordination, etc.). Gagné places gifted children among the top 10% of the student
population. Genetic influences are commonly accepted as a dominant factor of giftedness in Western cultures when children are compared with similar age peers in the top 10% [5].

The **High Performance Learning Framework (HPL)** is the fourth model for examination. Although rooted in *The English Model*, it was first developed by Professor Deborah Eyre and became known as *The Eyre Equation* [7]. HPL presents a formula to analyze high achievement of high ability learners and offers implications for all children in the classroom needed to experience success. Although a relatively ‘new’ model, HPL continue to grow as it is implemented in school districts throughout China, Europe, Middle East/South East Asia, and North America.

In the High Performance Learning Framework, teachers and parents must provide opportunities and offer support for children ages 5–11 mainly in the regular classroom to find their natural aptitude or interest. More sophisticated opportunities are offered as the child progresses in age. These components, in combination with ‘potential’ and ‘motivation,’ can encourage and produce high achievement in all children, including the highly able [6] (Fig. 2.5).

The HPL Model focuses upon the concept that children must experience opportunities to help them realize their innate potential. Thus, it represents a more inclusive approach for high ability to emerge. The formula promotes integrative education in which the classroom teacher is also the teacher and identifier of high ability children. However, schools are responsible for determining how to embed the four strategies into the mainstream curriculum for developing their highly able learners [6].

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**Fig. 2.4** Differentiated Model of Giftedness and Talent (DMGT) (Gagné) [4]
A brief representation of four gifted identification models has been presented to illustrate how giftedness can differ philosophically. Because it is important for a school district to select a model that can serve as the basis for identification of gifted children, it must be as inclusive as possible and distinguish the particular kind of giftedness a school district wants to recognize in their population of students.

A more inclusive approach favored by education systems today is one that provides equality of opportunity as a response for an appropriate education. Without being provided with appropriate opportunities that peak interest and challenge at their level of high ability, gifted children may never realize what they are capable of achieving or can realistically know what to expect of themselves.

### 2.3 Two Diagnostic Approaches

Similar to the diagnostic preparation of an airline, teaching is also a profession that must use a diagnostic approach. This approach should reflect sound practices and appropriate systematic tools for the specific purpose of identifying gifted students.

There are two diagnostic approaches to gifted education widely used in the United Kingdom today. The first diagnostic-prescriptive approach is commonly known as the Medical Model or DIP (Define, Identify, and Provide). It identifies gifted or ‘highly able’ children by using a set of specific measures to identify and provide for them using general and broad conditions [8]. However, using this process may not adequately recognize those students who marginally fail to qualify as gifted and, thus, is rather exclusive.

The second diagnostic approach is a more sophisticated and inclusive one that relies on assessing responses to provision and providing support appropriate for gifted or highly able students. Subsequently, it further develops provision according to student outcome. This method is referred to as the Sports Model or PIP (Provide, Identify and Provide) and exists in the areas of athletics and the arts. Students can be recognized and identified for their talent demonstrated during an activity through
teacher observation. For example, if a student easily masters a piece of music, a teacher would offer a more advanced and challenging piece to the individual.

2.4 Takeoff!

With the flight plan for a specific destination underway, the plane is now prepared for takeoff. Similar to getting the plane up in the air, a school district requires a formal gifted identification process to educate its gifted students. The first step for a school district is to establish a gifted identification screening committee that is led and supported by a school administrator. The committee should include a school psychologist, counselor, and/or guidance personnel and at least one classroom teacher. Additionally, if a program for the gifted is already in place, the teacher of that program should serve on the committee as a liaison between the school and community.

Schools need to publicly provide information about the gifted identification process to educate and inform teachers, parents, and community members. When sharing important information, a school district should include their educational identification and provisional policy by providing their definition of giftedness, qualification criteria, locations for securing nomination forms, and procedural deadlines. By keeping everyone regularly informed, the school district’s mission for gifted education will be communicated clearly, and, subsequently, will receive the necessary creditability and support from the public.

Following is a five-step plan for a school district to implement a gifted identification procedure:

2.5 Five-Step Plan for Gifted Identification

1. **Determine a Definition of ‘Gifted’**

After researching, a school screening committee needs to decide upon a working definition of giftedness based upon their cultural values to present to the Board of Education for adoption. It is important to understand how culture affects the identification and, subsequently, provision for gifted children. Therefore, committee members need to commit to an articulated definition that will be the driving force for identifying students as ‘gifted.’ Members of the screening committee need to commit to a definition that is inclusive, rather than exclusive, of exceptional learners. They should become familiar with appropriate testing and teaching materials to appropriately serve the population of minority children in the school district.

2. **Select a Gifted Identification Model and Appropriate Provisions**
The school screening committee should research and select a model that supports their definition of giftedness. A group consensus for multi-criteria, not the results of one identification tool, is a necessity for the decision-making process of gifted identification.

In addition to selecting both a definition and an identification model, the gifted identification screening committee also needs to decide upon the kind of provisions they will offer identified gifted students. The provision should be comprehensive and evidence based. They should be effective so the program aligns with the chosen identification model. This decision should be based upon the approach of the Medical (DIP) or Sports Model (PIP). For example, if the committee chose the Renzulli Three-Ring Conception of Giftedness Model, they would want to choose provisions that are supportive, e.g., the Renzulli and Reis Schoolwide Enrichment Model (SEM). It is important to create a good fit between identification and provision for a school district to achieve sustainability of a gifted program.

SEM offers flexibility in how a student can participate. Based upon their interests and needs, children who qualified for the talent pool can revolve in and out of a pull-out gifted enrichment program throughout the year with the permission of their teacher and parents (Fig. 2.6).

SEM is a model that supports two different kinds of high ability or giftedness: ‘schoolhouse’ (academic ability) and ‘creative/productive high ability’ designed by Dr. Joseph Renzulli and Dr. Sally Reis. In this enrichment model, students benefit by an exposure to a wide array of schoolwide enrichment opportunities in many,

![Diagram: The Renzulli and Reis Schoolwide Enrichment Model (SEM)](image)

**Fig. 2.6** The Renzulli and Reis *Schoolwide Enrichment Model* or SEM [2]
different areas. Teachers need to receive training to implement a systematic set of strategies for increasing students’ effort, enjoyment, motivation, and performance to integrate various advanced learning experiences and higher order thinking into their existing curriculum. Talent development can be enhanced by individual student portfolios in addition to differentiation of both the curriculum and instruction when working with a talent pool of students.

As a part of the schoolwide enrichment, Renzulli identifies a Triad Model that offers three types of enrichment. Type I and II enrichment activities are appropriate for all students in a classroom or an identified talent pool of gifted children, whereas Type III activities are aimed at those who are gifted and want to pursue a topic in greater depth:

**Type I**—Exposure to a variety of resources, experiences, and opportunities not found in the regular curriculum to stimulate new interests with a possible pursuit of an independent study;

**Type II**—High level of creative and critical learning experiences through research and problem-solving that focus on learning and applying new skills; and

**Type III**—Stimulating new interests by working independently or in small groups on a topic of the student’s interest, e.g., conducting research and an Independent Study with an authentic audience [2].

Based upon the Triad Model, identified gifted students are exposed to different options that may consist of a gifted and talented pull-out program, cluster or interest group, entire class or whole school enrichment and/or acceleration opportunities. A school district may offer any combination of these options that address the interests, abilities, and needs of their particular student population.

3. **Examine and Select Appropriate Identification Tools**

It is the responsibility of the screening committee to become familiar with various cultural assessment materials they want teachers to use in the identification of gifted minority students. Although ideal, screening of the entire school population can be expensive. However, teachers can re-norm or localize any tests based upon their student’s specific needs and use subgroup norms that are established by test developers for minority groups. Alternative testing instruments can also be used if they measure the same construct.

Decisions concerning placement of a child in a gifted program can be determined based upon the screening committee’s final evaluation. Some students might underachieve or overthink questions due to the linguistic bias of tests [9]. We know that not every child tests well and some, including gifted children, may underachieve. However, the good news is that a student’s abilities can change over time. Therefore, a child who received a nomination, but did not qualify as gifted one year, deserves to be re-evaluated the following year.
Tests

It is important to remember that no single test should be used to include or exclude students from an identification process. Indeed, multiple methods or criteria are needed for the identification of gifted children. Although an IQ test is commonly used as a sample of information for identifying gifted students, it is limited in scope [10]. The IQ test, however, has proven to be valuable to identify those students who are underachievers. An indicator of underachievement is when a student achieves a high IQ score, but earns a low grade on an achievement test in class. Additional signs of underachievement that teachers and parents can watch for include boredom, complacency, conformity, and rebellion in students [11].

Nominations

Although not new, teacher nomination is a popular and commonly used method to identify gifted students in many countries [12]. Because teacher nomination has its limitations, research reveals this method to be quite controversial. Pegnato and Birch view teacher nominations as an ineffective and inefficient identification process and recommend testing [13].

Some researchers report teachers have a tendency to be biased about a student’s performance assessment, especially when identifying a student who is culturally diverse [14]. Yet, it can also be argued that teachers can adequately judge giftedness in students. Although variations may exist among individuals, research shows that teachers are quite consistent within their own diagnosis [15].

Thus, it is important for all teachers who are involved in the gifted nomination process to be operating from a similar list of required criteria that has been explained to them. Teachers should be mindful to nominate girls as well as boys, who sometimes get left behind. Despite such disagreement among researchers, with proper training to recognize giftedness, teacher nominations can be a useful and important tool in the identification process when high ability is not evident from standardized test scores. Nonetheless, teachers play an important role of alerting a school screening committee to the possibility of recognizing a child as a potentially exceptional learner.

In addition to teacher nomination, the screening committee should consider nominations by parents, peers and the gifted child. Creating a new nomination form or using a preexisting one, e.g., Renzulli nomination forms, will provide consistent reporting of data that the screening committee can use to analyze when deciding which children qualify as ‘gifted.’ The committee should decide when nominations can be made during for selecting a talent pool of gifted candidates for the school year.

The gifted identification screening committee members must decide on a procedure to follow for the identification process. They need to make decisions, set deadlines, and prepare the paperwork for conducting standardized student interviews, testing, and analysis of the data. The resulting information needs to be clearly communicated to teachers, parents, and gifted candidates. The screening committee also needs to communicate the results with students who did not qualify
as gifted, but were nominated. If a child does not qualify as gifted at this point in time, the committee needs to inform the nominators and parents when the child might be eligible to be nominated again.

Committee members should decide on additional enrichment and/or opportunities that can be provided for these students to offer them some provisions and or opportunities that address their high ability. A good screening committee is only as effective as its consistency and thoroughness of communicating and implementing the identification process within the school and community.

4. **Develop Multiple Criteria**

Employing a variety of resources, i.e., multiple criteria, can provide a variety of ways to examine and evaluate the potential and ability of a child to qualify them as ‘gifted.’ Because each child is unique, it is important to accurately assess an individual’s abilities and potential. Assessment and evaluation tools should be supported by research and inclusive in practice to recognize a potentially gifted student who may not be readily perceived as a gifted candidate, e.g., underachiever or minority student. Therefore, it is important to observe children interacting in a variety of learning experiences that are particularly useful for identifying gifted students from nontraditional backgrounds to obtain a more accurate and complete picture of potential and ability [10].

There are numerous multiple criteria options that can be conducted both in and out of school to support the development of a gifted identification procedure:

- Achievement test
- Creativity task or test
- Informal observation(s)
- Intellectual ability test
- IQ score
- Leadership ability
- Nomination by self
- Nomination by peer(s)
- Nomination by teacher(s)
- Nomination by parent or guardian
- Portfolio
- Report card grades
- Talent identification
- Teacher interview(s)
- Student interview.

After the screening committee decides upon the multiple criteria that will be used to identify gifted individuals, nominations of possible gifted candidates can be received and reviewed by committee members at a designated meeting. A ‘blind screening’ (anonymity) is required in which each candidate is assigned a number so their compiled information is analyzed objectively so the candidate remains anonymous to promote fairness in determining which students qualify as ‘gifted.’
5. **Decide on Provisions and Staff Development**

The identification process of labeling a gifted individual is not a final destination in the journey to the world of gifted education. Once a gifted student has been labeled by a school district, appropriate provisions must be identified, created, and put into place to address their exceptional learning needs.

Professional staff development should be provided by the school district to build both understanding and appreciation for gifted children. The staff development should focus on informing teachers about specific skills and strategies that are effective in teaching different types of gifted learners. Gifted students need to be offered appropriate provisions and opportunities that motivate and extend their learning.

According to Rogers (2002), good provisions should include instructional management, instructional delivery services and curricular services. Rogers argues the importance of matching each child with the program and not imposing a program on a child [16]. Thus, to create an effective curriculum that is student-driven, a teacher must match the content with their students’ various interests, learning styles, and ability levels.

Provisions offered by the school should meet the needs of their identified students who are now formally recognized as exceptional learners. Some options to consider include individualization, cluster grouping, cross-graded class, or advanced placement. Schools need to devise a policy to ensure the provision of equal access for all gifted students [17, 18]. Teachers should be trained in implementing these options. Various enrichment and acceleration opportunities should also be conceptualized and offered to extend the curriculum.

Individual resources and talents run wide and deep. Thus, teachers need to learn how to create extension opportunities for student to demonstrate exceptional learning ability to develop their particular interests and talents. When educational opportunities are denied to gifted children on the basis of a lack of equal access, families who can financially afford to offer additional educational provisions will probably do so. However, families who do not have the financial means may find their gifted child is missing out.

### 2.6 Creating Opportunities for Enrichment and Acceleration

Enrichment opportunities can expose children to new and creative ideas. By motivating gifted children to delve deeper, they can explore a topic of their interest in greater depth. Enrichment provisions can also be made by providing interdisciplinary connections within the curriculum to extend the learning for all students. Some ideas for possible enrichment opportunities include fieldtrips to museums, speakers, workshops, sport events, art shows, college campus visits, concerts, and visitations by former students in a gifted program. Teachers can involve students,
2.6 Creating Opportunities for Enrichment and Acceleration

parents, and community members by inviting them to share their ideas for enrichment opportunities.

Another way to nurture the academic development of a gifted student is through acceleration. Acceleration offers a gifted child the opportunity to work at a more rigorous level that challenges and motivates them to learn more complex material. Taking above grade-level examinations for advanced placement courses at an earlier age is a way for a gifted child to demonstrate a higher ability to learn and develop readiness for a range of options that lead to an appropriate education [19]. It is important that enrichment and acceleration options follow an early identification of giftedness to provide intervention and equal access of education. Both enrichment and acceleration will be discussed more fully in Chaps. 7 and 8, respectively.

References


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