

# An introduction to gifted and talented education



School resources

Gifted and talented individuals are found across all social groups irrespective of culture, ethnicity, socioeconomic status, and physical and cognitive learning differences<sup>1</sup>. There are various social understandings of giftedness that influence the way the term is used, but it can be used broadly to refer to individuals who demonstrate high ability across a wide range of learning areas, or narrowly to refer to high ability in specific learning domains<sup>2</sup>. Different groups understand giftedness in different ways based on explicit (researched) or implicit (personal) understandings of the term<sup>3</sup>.

Current understandings about giftedness are based on a foundational set of theories. Researchers at the beginning of the twentieth century focused on domain-general, IQ models of intelligence that considered giftedness in terms of a number calculated by performance on a general ability test<sup>4</sup>. Later theorists highlighted the different ways in which individuals could be gifted – these are known as domain-specific models<sup>5</sup>. Systems theorists focused on the interaction between different psychological variables in the expression of giftedness, such as wisdom, intelligence, creativity and learning behaviours<sup>6</sup>. More recently, researchers have embraced a developmental model of giftedness that considers the effects of environmental influences on the advancement of gifts into talents<sup>7</sup>. Current gifted research is particularly interested in the influence of environmental factors in the development of a gifted student's gifted traits. The learning environment has been found to play an important role in supporting students' gifted behaviours<sup>8</sup>.

There are also many areas of disagreement among gifted researchers, especially with respect to the influence of individual learning dispositions, the role of creativity, and, importantly, the fundamental idea of how to conceptualise giftedness. For example, there is considerable debate about whether to view giftedness in terms of individual potential or as demonstrated achievement<sup>9</sup>. Some researchers argue that, even though early achievement in an area can be a predictor of giftedness, more average achievement is not necessarily indicative of a lack of exceptional ability because performance is dependent on many factors. In fact, a gifted student's failure to display advanced learning behaviours may actually indicate a reflective nature or co-existing learning difficulties<sup>10</sup>.

## Defining giftedness in the school setting

Teachers are likely to encounter a number of gifted and talented students during their careers. As there is no internationally agreed-upon definition of giftedness<sup>11</sup>, developing valid and reliable methods of assessment for identifying giftedness in schools challenging. In New Zealand, the Ministry of Education promotes a multidimensional view of giftedness and talent but does not provide a national definition. This is problematic because what a society believes giftedness to be ultimately determines what individuals look out for as characteristics of giftedness<sup>12</sup>. In 2008, the Education Review Office (ERO) found that only 5% of New Zealand schools were using 'highly inclusive and appropriate' conceptualisations of giftedness and talent<sup>13</sup>, which indicates that many schools are struggling to define the terms.

Traditionally, giftedness has been associated with students who score at or above 120 points on an IQ test such as the Wechsler Intelligence Scales for Children–4th Edition (WISC-IV) or the Stanford-Binet Intelligence Scales<sup>14</sup>. Research has shown that some schools still favour these domain-general measures

of intelligence (a score on an IQ or ability test) as they are easy to administer, valid for what they set out to measure, readily available, match the format of the gifted programmes offered, and are therefore justifiable to parents/caregivers and the public<sup>15</sup>. However, this IQ-based definition has been criticised for its emphasis on measures of domain-general academic intelligence. Such a focus typically fails to identify students with gifts and talents in creative or practical domain(s), gifted and talented students from minority cultures, rural communities, and socio-economically disadvantaged groups, and students who are twice exceptional, a term used to describe students who are gifted and also have some form of learning difficulty such as dyslexia<sup>16</sup>.

An alternative definition by the National Association for Gifted Children (NAGC) considers giftedness as belonging to individuals:

who demonstrate outstanding levels of aptitude (defined as an exceptional ability to reason and learn) or competence (documented performance or achievement in the top 10% or rarer) in one or more domains. Domains include any structured area of activity with its own symbol system (e.g., mathematics, music, language) and/or set of sensorimotor skills (e.g., painting, dance, sports).

The development of ability or talent is a lifelong process. It can be evident in young children as exceptional performance on tests and/or other measures of ability or as a rapid rate of learning, compared to other students of the same age, or in actual achievement in a domain. As individuals mature through childhood to adolescence, however, achievement and high levels of motivation in the domain become the primary characteristics of their giftedness. Various factors can either enhance or inhibit the development and expression of abilities.<sup>17</sup>

A useful definition of giftedness and talent for schools incorporates this definition with the developmental model of giftedness discussed to interpret the term 'gifted' as referring to the **potential to perform highly** in one or more domains when compared with same-aged peers, while 'talent' refers to **actual performance of exceptional ability**<sup>18</sup>.

Understanding giftedness and talent in this way means that individuals who are identified as gifted require differentiation of the curriculum in order to develop their talents. It is important to note that, while this definition is inclusive of multiple domains of intelligence, it is also centred on exceptionality in one or more areas so as not to become so broad that it becomes unworkable. This consideration aligns with concerns of New Zealand researchers who argue against too general a definition<sup>19</sup>.

## Giftedness and underachievement

A significant challenge facing schools is the high levels of underachievement associated with gifted students. Statistics show that half of all gifted and talented students currently underachieve in school<sup>20</sup> with twice-exceptional students regarded as being especially at risk<sup>21</sup>. Underachievement in itself is a complex phenomenon influenced by many factors including parent/caregiver expectations, personal learning differences and the nature of educational opportunities available to students in a school setting, which makes defining what we mean by educational underachievement highly contested. Underachievement is most commonly considered to be a discrepancy between a student's ability and their achievement in a learning area<sup>22</sup>, although this definition presents challenges in understanding what is meant by the terms 'ability' and 'potential'.

Realising learning achievements depends on an individual being able to recognise and then capitalise on their learning strengths. Gifted individuals are at increased risk of underachievement if a school places no value on making appropriate provision for them. Therefore, it is important that all teachers are able

to identify underachieving gifted students and provide learning opportunities for them that help develop their gifts and talents.

## Myths and misconceptions about giftedness

Gifted learners in New Zealand schools face a number of challenges, often directly influenced by the many myths about giftedness that exist. The following five common misconceptions about gifted students are adapted from a list compiled by the National Association for Gifted Children<sup>23</sup>.

- Gifted students do fine by themselves. In reality, gifted students need well-trained teachers who will challenge and support them in developing their abilities. Many gifted students are so far ahead of their same-age peers that they may already know most of the content knowledge for the particular curriculum level. The resulting frustration they experience in the classroom can lead to underachievement, dejection or poor work habits, all of which impact on their wellbeing. Appropriately trained teachers are key in respect to identifying and nurturing the talents of gifted students.
- Gifted students will be fine in regular classrooms. Although teachers try their best to challenge all students, they are often unfamiliar with the particular learning needs of gifted children. Many New Zealand teachers receive no formal professional learning or development focused on teaching academically advanced students. Consequently, gifted students are often not given sufficient opportunity to thrive in the classroom. Research in New Zealand schools confirms that many teachers feel unable to confidently recognise and appropriately provide for gifted learners<sup>24</sup>.
- All children are gifted. All children have strengths and positive qualities, but not all children are gifted. The label 'gifted' means that, when compared to same-aged peers, a child has an advanced capacity to learn and to apply what is learned in one or more areas of interest. This advanced learning ability requires changes to the regular curriculum to ensure gifted children are challenged and learn new content. Gifted is not an elitist label. Rather it is a term that allows students to be identified for educational services that help meet their exceptional learning needs.
- Gifted education programmes in schools are elitist. Gifted education programs should be designed so that they help all gifted students. Gifted children come from all cultural and socioeconomic groups. However, many gifted students are denied the opportunity to realise their potential because of flawed identification practices or the way in which school programmes and services are funded. Additionally, as there is currently little funding for gifted education in New Zealand schools, most gifted education programmes and services are dependent on passionate teachers and often driven by parent demand. This means that, in spite of need, it is typically schools in higher-income areas that are able to provide services, creating the appearance of elitism.
- Gifted students consistently achieve high grades. As noted above, underachievement describes a discrepancy between a student's performance and their actual ability, and there are many reasons why gifted students might underachieve. Gifted students can become bored or frustrated in unchallenging classrooms causing them to lose interest, develop poor study habits, or dislike school. Others may mask their abilities to try to fit in socially with same-age peers or may have a learning difficulty that masks their giftedness. It is critical that supportive, knowledgeable adults are available to help gifted learners break a cycle of underachievement so that they have the opportunity to realise their full potential.

## School-wide strategies for supporting gifted and talented students

There are a number of strategies that can be used in schools to appropriately provide for gifted learners:

- **Develop shared school-wide understandings of the terms 'gifted' and 'talented'.** An evidence-based school definition is necessary to inform the development of school processes and procedures for identifying and creating programmes for gifted students<sup>25</sup>. These shared understandings will also be useful in supporting the transition of students from one school to another.
- **Use multiple methods of assessment to identify giftedness,** taking into account personal factors such as motivation, creativity, wisdom, resilience and initiative as well as environmental factors such as the number of extra-curricular opportunities the student has received<sup>26</sup>. Multiple methods of assessment might include portfolios of learning/performance, demonstration of academic capabilities on standardised tests and in competitions, specialist reports, extra-curricular activities, and nomination by parents, caregivers and teachers. Triangulating the student's levels of academic, socio-emotional and cognitive ability and readiness can also provide a fuller picture of their abilities and needs and help in developing appropriate opportunities.
- **Give careful consideration to the kinds of specialist programmes that are offered.** No two gifted students are exactly alike in respect to their educational needs: they vary in personality, learning traits, interests, and abilities across a wide variety of learning domains<sup>27</sup>. As the regular curriculum is unlikely to appropriately cater for the unique needs of each gifted student, teachers need to be able to differentiate programmes and methods of delivery. Offering a single programme will be insufficient to provide for the diverse array of gifted students' learning requirements. Rather, variety needs to be offered within any proposed gifted programme, including opportunities for learning advanced content, enrichment of the curriculum in domains of interest, enrolment in competitions and for mentorships, opportunities for developing leadership and cultural abilities, and so on. Gifted students also benefit from learning from like-minded peers, so it is important they have opportunities to interact with other gifted students<sup>28</sup>. This helps to ensure they are stimulated and challenged.
- **Provide teachers with opportunities for professional learning and development** in the field of gifted education. Gifted students have particular socio-emotional and cognitive requirements alongside their academic needs, and studies have shown that they benefit most from instruction by teachers with specialist training in the field of gifted education<sup>29</sup>. Targeting this professional learning and development provision at teachers with a particular interest in gifted education will help to encourage the development of gifted-specialist capability in schools, and developing a gifted and talented 'team' that integrates teacher expertise with school leadership will help ensure that programmes are effective and sustainable over time.

## Teacher strategies for supporting gifted and talented students

While not all teachers have access to specialist training, there are a number of teaching strategies that can be incorporated into classroom practice to help provide for gifted learners<sup>30</sup>:

- **Pre-assess prior knowledge.** This is a useful strategy for all students as it can help make student misconceptions about a topic obvious. For gifted students it provides an opportunity to examine and demonstrate what they know and what they might need to learn. Curriculum provision can then be focused on areas of learning that are new to the student, and activities can be included that encourage depth and complexity in exploring the topic.
- **Offer the most difficult first.** This strategy involves offering the five most difficult problems associated with a task first to high-ability students. Those students who demonstrate mastery by solving the problems correctly get to move ahead onto a more challenging learning task or objective. This helps to eliminate mindless repetition that often frustrates gifted learners.

- **Explore student interests.** Gifted students typically are highly engaged with their learning in areas of interest, so exploring these areas of individual interest can help with provision. Tools like Renzulli's [interest-a-lyzer](#) can be used to examine an individual's interests across a variety of subject areas.
- **Differentiate tasks and activities** by offering a variety of opportunities to investigate content, employ different processes of learning and design various forms of learning product. Choice-boards are an easy way to stimulate thinking about content, process or product design. Under teacher supervision, students decide what, why and how they present their learning. Teacher guidance is essential to help ensure agreed-upon learning objectives are met. Inquiry-based learning also provides teachers a way of differentiating classroom provision. By using different formats of inquiry-based learning such as structured, guided and open inquiry, gifted students develop not only content knowledge but also skills in investigating problems and justifying an adopted position.
- **Allow and encourage gifted students work together.** Research has shown that gifted students benefit from and enjoy time spent learning with gifted peers<sup>31</sup>. When given time to work with other gifted students, gifted individuals are challenged to develop and refine their ideas through feedback from the group. This helps them to grow intellectually, cognitively and socio-emotionally as they learn that others might be as if not more capable than they are in specific fields of learning. These experiences are beneficial to an individual's development but should be balanced by more heterogeneous grouping with non-gifted peers in the regular classroom.
- **Encourage students to take responsible risks.** Gifted students can be hindered by perfectionist tendencies that result in them not taking on challenges, but it is important to encourage them to attempt new activities such as tackling a project in a learning area they haven't explored before, entering a competition, or developing their creative side or leadership skills. Even if they don't succeed, they probably will have learnt something interesting about themselves! Such experiences can help in the development of persistence and resilience in the face of future challenges.

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## Endnotes

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