

VANCOUVER ISLAND UNIVERSITY

Illuminating the Brightest Stars: Using Differentiated Instruction to Support Young Gifted and
Talented Students in Early Primary Classrooms

by

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We accept this Graduate Applied Project as conforming
to the required standard.

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Abstract

The following project aims to inform early primary teachers in how to recognize and support young gifted and talented students using differentiated instruction in inclusive classrooms. The project examines the history of gifted education, and successful teaching strategies that are available to support, specifically, young gifted students to reach their fullest potential in inclusive classrooms. A discussion on the definition of giftedness is important as there are many misconceptions and conceptualizations surrounding gifted and talented students. Each province in Canada has its own definition, so it is essential that teachers working in British Columbia are familiar with that definition and the theories that inform it. I have created a workshop to provide teachers with pertinent knowledge on giftedness so they can improve their ability to identify gifted students in their classrooms and to use research-based strategies to support their gifted students.

Keywords: Differentiated Instruction, Gifted and Talented, Early Primary

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Dedication

To my family for all of their support, encouragement and laughs. To my friends for providing distractions and to my students who continue to inspire and challenge me every day.

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Chapter 1

Introduction

Many different strategies are used to support exceptional learners in schools; however, gifted students are often excluded from funded supports and differentiation (Borders, Woodley & Moore, 2014). Priority is often given to students struggling with meeting the needs of the curriculum or needing extra interventions. This can mean that gifted learners are left to their own devices, or all of the onus falls on the classroom teacher to engage and support the exceptional students (Borders et al., 2014). “All students are entitled to equitable access to learning, achievement and the pursuit of excellence in all aspects of their education” (British Columbia Ministry of Education, 2016, p. v) so it is important that teachers are trained to implement differentiated instruction in order to support the variety of students that they teach (Borders et al., 2014); this includes young gifted students. If talented learners are not supported by Special Education teachers and funded supports in British Columbia’s (BC) schools, how are they being supported? With gifted and talented students being such a diverse group is it fair for the responsibility of their primary education to fall solely onto the classroom teacher? Especially when most teachers are underinformed on the topic of supporting gifted students, receive minimal training in their university programs and lack professional development opportunities.

The Gifted Children’s Association of British Columbia (GCABC) stated in a letter to panel members that gifted and talented students are currently gravely unsupported in BC’s education system, they claimed that this deficit originates from gifted students being acknowledged less and less as well as students being provided with insufficient educational experience and programming (GCABC, 2018). My project aims to tackle the latter.

Background

In Canada, each province has its own language surrounding gifted education. Even the definition and criteria of “giftedness” can vary slightly from province to province. *The Special Education Policy Manual* in BC (2016) states that:

A student is considered gifted when she/he possesses demonstrated or potential abilities that give evidence of exceptionally high capability with respect to intellect, creativity, or the skills associated with specific disciplines. Students who are gifted often demonstrate outstanding abilities in more than one area. They may demonstrate extraordinary intensity of focus in their particular areas of talent or interest. However, they may also have accompanying disabilities and should not be expected to have strengths in all areas of intellectual functioning. (p.53)

Are gifted learners only truly supported in BC when they have an ‘accompanying disability’ that qualifies for funding, e.g., a learning disability or medical condition such as AD/HD? In the past, gifted children have been supported by acceleration (skipping grades), or by being put in separate classrooms (enrichment programs). With a more recent shift to inclusion gifted children have often been left at a disadvantage (Borders et al., 2014).

Inclusion ensures that every student has access to a suitable education by providing necessary supports, everyone learns together, the curriculum is adapted to meet a variety of needs and differences are celebrated (Borders et al., 2014), the idea of equity versus equality. All students are integrated into public school classrooms and learn together. One strategy used to support inclusion is Response to Intervention (RTI), which is a three-tiered intervention model; it is often used in BC as a framework to provide supports in inclusive classrooms. RTI is a proactive approach to supporting students in which all students are screened and at-risk students

are identified, their progress is closely monitored and they are engaged in tiered interventions depending on the severity of their needs (Fuchs & Fuchs, 2006). In this model, all children are involved in Tier 1 interventions, some children are involved in more intensive Tier 2 interventions (or small group) and few children are involved in Tier 3 interventions (often one-to-one).

My school uses a variation of RTI in which all children are assessed and small groups of students are pulled from the classroom to receive additional support in certain subject areas; some students with higher academic and behavior challenges receive both small group and individual interventions to maintain inclusive classrooms. We also use Education Assistants (EA) in classrooms with children who have severe needs. The “most-some-few” (i.e., three-tiered) framework of RTI often mainly includes students struggling with learning disabilities (usually in reading) or students with disruptive behaviours (Fuchs & Fuchs, 2006). Due to lack of funding and available learning support teachers, gifted and talented learners continue to be neglected from the process of provision of adequate supports to meet their needs. As a result, there is a need to inform teachers on how to better support talented early primary students in their classrooms without adding to their already overwhelming workload.

Personal Context

As a Grade 1 teacher with an inclusive classroom, my goal has been to address the demonstrated needs of each of my students. When I struggled with supporting a gifted child in my classroom, I was directed to the “gifted liaison” at my school who informed me that there were no programs in the district for gifted children until they reach Grade 5. I was given a list of websites for summer camps and after school programs to pass on to my students’ parents (many of which excluded him due to his age). This frustrated me to say the least. How would this

student be supported from Grade 1 until Grade 5? I was at a loss of how to support this talented learner and began my own grueling process of trial and error using the strategies that I could find at my school, in my district, or think of myself. I would often challenge my student with extension activities or redirect him to a relevant educational game. I felt as though every challenge I gave him lasted merely a few minutes and I spent much of the day redirecting him to new activities and assignments. Even though the student made some progress throughout the year, became more comfortable and functional in the class as I got to know him better, I still felt as though I had failed that student. My student was very interested in science. Even though he was a primary student, his scientific knowledge was so vast that I felt useless in teaching him and he displayed little interest in other subjects. If I had spent my evenings studying scientific themes, I would still feel ineffective when supporting this child. Even when providing him with open-ended assignments, how would I assess his progress or attainment when I do not possess the knowledge required to evaluate this student?

In my three years teaching at my school I have not heard of our learning support team working with any primary-aged gifted learners to extend or challenge them in their learning journey. They are already overwhelmed with students struggling with learning disabilities, intellectual disabilities or medical conditions that disrupt the learning process. Furthermore, our learning support staff are constantly pulled from scheduled interventions supporting struggling students to address difficult and dangerous behaviours that arise. A professor I had in the past brought to my attention that we put droves of resources and time into supporting children who have Learning Disabilities, Mild Intellectual Disabilities, or Autism, among other struggles; while neglecting children that could very well have the talent and mental capacity to go on and cure or treat those disabilities and conditions.

Current Research and Context

Current research suggests that there are many effective strategies that have a positive impact on the academic and social well-being of gifted learners. In a study regarding enrichment programs involving students from K - 6, Kim (2016) found that programs such as summer camps had a positive impact on gifted and talented children in both academic and social emotional achievement. In my school district, currently, the only programs for young gifted students (from kindergarten to grade 4) are outside of school, so it is up to the parents to enroll and support their children. Stoeger, Hopp and Albert (2017) investigated the impact of online mentors in supporting gifted teenage girls to encourage interest in science, technology, engineering and mathematics (STEM). The authors investigated both one-on-one mentoring and many-to-many group mentoring between gifted teenage girls and female academics for 6 months. Stoger et al. (2014) found that group mentoring was more successful than one-on-one online mentoring on all investigated measures. Linking students with online mentors could be a great avenue for parents to help support their talented children at home. This also agrees with other findings that gifted and talented students need to learn alongside like-minded peers (Vogl & Preckel, 2014). Within BC, schools have moved towards inclusion in public school classrooms even though research states that gifted students benefit from ability groupings (Vogl & Preckel, 2014).

Additionally, the following studies suggest that gifted children perform better when they are supported from a young age. Specifically, Roessingh and Bence (2017) found that “gifted children benefit enormously from direct, explicit instruction in foundational, underlying skills and ongoing instruction in the elements of academic literacy that continue to evolve over time” (p.190). The GCABC (2018) corroborated the importance of early identification when supporting gifted learners. Stoeger et al. (2017) agreed that gifted learners benefit from

foundational skills, however, the authors cautioned on the dangers of ‘gifted underachievers’ and how self-regulated learning can be very beneficial for talented learners.

Many studies attest to the importance of differentiated instruction (DI) in meeting the needs of gifted students. Johnsen (2003) investigated student teachers using differentiation to address different levels of ability within their classrooms and she found that students were interested and engaged and educators felt successful and empowered. Kettler, Oveross and Salman (2017), addressed some misconceptions of DI by educators teaching gifted learners in preschool. They investigated the difficulties involved in preschool program development such as finding trained staff, lack of funding and program guidance. They also discussed the importance of involving parents in the process of supporting gifted students. The authors found through surveys that 95% of the preschool centers did not have policies or practices for gifted children attending their programs. Yuen et al. (2018), investigated the success of DI professional development workshops for instructing gifted learners. They discussed practical strategies that teachers can use to enhance their confidence in executing differentiated lessons. Yuen et al. (2018) considered the importance of continuing professional development surrounding differentiation in mixed-ability classrooms. The authors found that the professional development workshops were well received by teachers and left educators feeling more confident and empowered in supporting young gifted learners using DI.

VanTassel-Baska and Stambaugh (2005) discussed the many challenges facing teachers of gifted students including the teacher’s understanding of subject matter and how to modify, the teacher’s personal beliefs surrounding learning, addressing the diversity of mixed-ability classrooms, and lack of resources. In another article that spanned three years, VanTassel-Baska and Stambaugh (2008), investigated the change of behaviours of educators using research-based

DI teaching strategies. The authors found that instructional improvement took two years of implementing DI and attending regular professional development opportunities. Many studies have uncovered that it is very beneficial for students to work alongside like-minded peers in ability based classrooms; working with peers of a similar ability was both socially and academically advantageous. However, with the current trend towards inclusion in BC, gifted students are rarely provided with this opportunity.

Kettler et al. (2017) concluded that preschool educators carry misinterpretations of gifted learning and that formal policies and practices for identifying and supporting young gifted learners may be needed in preschool settings. Many preschool educators had not received any training surrounding gifted education and believed that differentiation for gifted learners would be difficult or 'impossible' (p. 124). Vogl and Preckel (2014), found that students placed in ability-based classrooms showed more interest in school when compared to gifted students in regular classrooms. The authors also found that gifted students in ability-based classrooms maintained their interest in school throughout the research project whereas the students in the regular classroom were found to have lost interest and the teacher/student relationship deteriorated over time (Vogl & Preckel, 2014). Adams-Byers, Squiller Whitsell and Moon (2004) compared the perceptions of gifted students in gifted classrooms and regular classrooms. The authors also suggested that even gifted classes needed to be differentiated to accommodate the range of abilities within the homogeneous (like-ability) classroom. The students in the study discussed more academic advantages than the regular (heterogeneous) classroom; however, the mixed-ability classrooms showed the most social/emotional advantages. In spite of this fact, the same students that found social/emotional advantages due to the unchallenging atmosphere also listed academic disadvantages such as increased competition and lower self-esteem (due to the

competitive environment). Kitsantas, Bland and Chirinos (2017) examined the trajectory of how elementary and middle school gifted students viewed their gifted classes. The elementary students voiced the importance of: a deeper understanding of material; being challenged; and, differentiated curriculum. Their findings suggest that we need to go beyond DI and understand each individual learning using “transformative personalization” which goes deeper than DI in getting to know learners and includes “knowledge, skills, and dispositions to enact a sophisticated combination of instructing, guiding, coaching, facilitating, modeling, assessing, mentoring and inspiring” (Kitsantas et al., 2017, p. 283). Transformative personalization includes developing both personal and team learning experiences. Recent changes in the BC curriculum aimed to allow teachers more opportunities to personalize learning and encourage a deeper understanding of the curriculum content, however, there hasn’t been much discussion on how gifted education fits with the new curriculum (Lo et al., 2019).

Purpose and Overview of the Project

This project aims to provide teachers with effective DI strategies to enable them to provide adequate programming for gifted and talented students in inclusive classrooms in BC. DI uses ongoing assessments, flexible groupings and includes customizing instruction to meet individual needs (this can involve content, process, products or learning environment). Through this project and the professional development workshop created, I hope to help teachers better understand how to support and assess primary-aged gifted and talented students in public schools. I plan to help teachers in implementing DI to support their gifted and talented students. A review of the literature on DI for gifted learners will inform on strategies that classroom teachers can use to provide sufficient instruction to the talented learners in their classes. With the creation of a professional development workshop I hope to: erode teachers’ negative

connotations associated with differentiation such as unmanageable workload and help instill positive attitudes surrounding DI; alleviate stress involved in supporting mixed-ability classrooms including gifted learners; and, encourage teachers to collaborate and share knowledge regarding lesson planning and lighten the workload when possible.

Conclusion

Gifted students are currently being left unchallenged, unsupported and left to their own devices in our own education system. This study seeks to uncover strategies that challenge talented students but are also manageable for primary classroom teachers. Findings from a review of the literature may be shared with other teachers in the school district through professional development presentations. The findings may be beneficial for teachers of gifted primary-aged students and for those who teach gifted intermediate students as well. Teachers who attend this professional development workshop may find success using DI in their classrooms to enhance the learning of their gifted and talented students. In Chapter 1 I shared some of the issues, contextual information of the topic and I discussed my personal experience. In Chapter 2 I will overview the literature of the ‘topic’ challenges in defining giftedness and exploring effective strategies. Chapter 3 will provide an overview of the workshop to support teachers and, finally, Chapter 4 will articulate the evolving of my thinking and the evolution of the project.

Chapter 2

Literature Review

There have been many shifts in gifted education theories over the years, however, the one factor that remains the same is that gifted students require specific support and guidance in order to reach their fullest potential. Page (2006) indicated that the terms gifted and talented are meant to denote a wide range and variety of abilities, not just refer to a homogeneous category or group. Current literature unveils that gifted children continue to be under challenged in regular classrooms. DI is a framework that has been proven to support not only gifted students, but help to tackle the diverse needs of today's inclusive classrooms. Teachers need support, training and information in order to meaningfully introduce DI into their classrooms and to feel confident in their abilities. DI could help to reduce the stress and workload facing BC teachers who are struggling to support classrooms with very diverse needs and challenges. This chapter provides a review of the literature on (1) key conceptualizations of giftedness, (2) effective strategies for supporting gifted learners, and (3) findings on the use of DI to challenge gifted and talented learners.

What is Giftedness?

There are many different theories and models of giftedness which is understandable considering the pupils themselves are a complex and diverse group. Historically, Lewis Terman¹ is thought to be the founder of special education. Terman (1954), was a Stanford University professor in the 1920s who investigated whether young children, who were chosen based on their Intelligence Quotient (IQ) scores, would be more successful later on in life when compared to other randomly selected subjects of the same age. He used intelligence tests (created by Alfred

¹ Lewis Terman published 5 volumes in Genetic studies of genius between 1925 and 1959.

Binet and Theodore Simon) and case history information from parents and teachers in his research following a group of children over more than 35 years. Terman's longitudinal study found that gifted students, in comparison to normal students, were seen to perform slightly better emotionally and physically, rank higher in academic subjects, be more emotionally stable, perform best when education and family values were respected and valued, and were also "infinitely variable" and overall qualitatively different (National Association for Gifted Children, n.d.). Terman's study continues to be the "longest running longitudinal study of gifted children" (National Association for Gifted Children, n.d.).

Another pioneer in the studies of gifted and talented children was Leta Stetter Hollingworth. She was an American psychologist who created the first "Special Opportunity Class" (National Association for Gifted Children, n.d.). She published a book describing the nature and nurture of gifted children which was thought to be the first textbook about educating gifted students (National Association for Gifted Children, n.d.). In 1936, Hollingworth opened the Speyer school for young gifted children (National Association for Gifted Children, n.d.). More recently, the most distinguished theoretical conceptions surrounding giftedness come from François Gagné and Joseph Renzulli. Other prominent theorists in the field include Robert Sternberg and Howard Gardner.

Renzulli's three ring conception of giftedness. Renzulli's conception of giftedness was published in 1986 and was based on the variable interaction of three characteristics: being highly creative, able and motivated to use their above average talents (Renzulli, 2016). Renzulli's (1994) study examined exceedingly successful adults in a multitude of performance areas; he viewed giftedness as an attribute, not a behavior (Page, 2006). This theory is not dependent on intelligence test results. Page (2006), claimed that Renzulli's model neglected to "identify

students who have above average ability and creativity, but are yet to find a context or area of interest in which they excel” (p. 12). As a result, Page (2006) suggested that this theory be used alongside another to ensure that talented students are fully supported.

Gagné’s differentiated model of giftedness and talent. Gagné’s model separated the notions of giftedness and talent, with giftedness being a “natural ability” and talent being gained through intervention or experience (Page, 2006, p.13). This distinction between the notions of giftedness and talent addresses a limitation in Renzulli’s model. In his theory, task commitment was a necessary characteristic of giftedness (Page, 2006). Gagné’s model acknowledged that many children will have different opportunities and experiences and that there is variation in the degrees of intervention, in both “intrapersonal and environmental catalysts”, necessary to support gifted and talented people in achieving their highest potential (Page, 2006, p.13). Page (2006) argued that this aspect of Gagné’s theory was its greatest strength as it suggested that experiences, catalysts and developmental processes can effect gifted persons and create shifts between the realm of giftedness and talent.

Gardner’s theory of multiple intelligences. Gardner proposed a concept of intelligence that did not have a single definition but a concept that was flexible and multifaceted. He posited that there were several types of intelligence which he assigned to eight different categories and addressed the advantage of expanding on and from a child’s areas of strengths (Page, 2006). Gardner’s theory stated that every child holds pieces of all eight intelligences that can be strengthened with instruction. However, once children begin schooling they seem to develop habitual ways of learning which can lead to building up some intelligences over others. The eight intelligences being: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalist (Armstrong, n.d.). However, Gardner’s theory of the

multiplicity and flexibility of intelligence, by itself, is not enough to ensure that the needs of gifted children are being met. Page (2006) suggested that Gardner's theory of multiple intelligences must be used by educators as part of an overall understanding of available models, not to be used exclusively but alongside other theories. Gardner's work has received some criticism from researchers who do not think that his research on the multiplicity of intelligences was rigorous enough to qualify as a theory (Kincheloe, 2004; Sew, 2006). Nevertheless, Gardner's concept of intelligence resonates with educators as they feel pressed to differentiate instruction to meet the needs of their students' different processing systems.

Intelligence quotient tests. IQ tests are standardized tests used to evaluate a persons' intelligence. Historically, much of the early research conducted on intelligence was based on IQ tests. These tests were often focused on assessing language or mathematics (BC Ministry of Education, 2006, p. 7). IQ tests have been found to be less effective than originally thought as they do not test for a variety of intelligences and talents. As stated by Page (2006), IQ may be one mark of giftedness, however, it is no longer thought to be the only measure. Many of the more recent theories paint a broader picture of gifted and talented students with diverse abilities and talents.

Concept of Giftedness in British Columbia

The BC Ministry of Education's *Special Education Policy Manual* (2016) articulates in its mission statement the aim to promote an education system which enables "all learners to develop to their individual potential" (p. 5). For gifted students this requires opportunities to develop in ways which may far exceed expected learning outcomes for their age. Although the *Special Education Policy Manual* is helpful and provides a range of documents and resources,

many of the resources listed in the manual were very outdated, with the most recent reference listed being from 1994. In BC, the Ministry of Education (2016) defines giftedness as follows:

a student is considered gifted when she/he possesses demonstrated or potential abilities that give evidence of exceptionally high capability with respect to intellect, creativity or the skills associated with specific disciplines. Students who are gifted often demonstrate outstanding abilities in more than one area. They may demonstrate extraordinary intensity of focuses in their particular areas of talent or interest. However, they. May also have accompanying disabilities and should not be expected to have strengths in all areas of intellectual functioning. (p. 53)

BC's definition is informed by three main concepts of giftedness; the theories of Renzulli (high creativity and above average ability); Gagné (talents and intelligence are influenced by developmental factors); and, Gardner (intelligence is flexible and multifaceted). BC's definition goes beyond mere IQ test results to include a variety of talents, abilities and co-morbidities. A decade earlier the BC Ministry's *Gifted Education: A Resource Guide for Teachers* (2006) also defined a variety of terms including 'creatively gifted', 'genius', 'intellectually gifted', 'giftedness' and 'talented'. It addressed the issue that gifted and talented students can often possess comorbidities. A common misconception among educators is that gifted students do well in all subjects and are well rounded but this is often not the case with gifted children.

Issues in Supporting Gifted Students

How do teachers support and challenge students when we are not informed or capable to keep up with their talents and interests? Does all of the onus fall on teachers and schools? The following studies involved research surrounding different perspectives and methods of supporting gifted students. Vialle (2017) implemented a qualitative design using semi-structured

interviews with 32 parents of gifted children. Meetings ranged from 30 to 70 minutes and investigated the experiences of parents with gifted school-aged children. Vialle (2017) aimed to evaluate which resources parents used to support their gifted children and how they viewed their experiences. Vialle's (2017) study emphasized the need for early supports for young gifted children and the need for differentiation. Vialle (2017) found that parents felt that support for their children often depended on the teacher, and finding the 'right' school to support their child. They found that teachers were often 'hit and miss' in schools and they felt they needed to compensate at home to fully support their child as well as advocate for their child in the public school system. Resources that parents named were used to support their child included: extra-curricular activities, tutors, getting their child evaluated by a psychologist, didactic educational resources, holiday programs and goal-setting. Many of these resources are very expensive and can place a financial burden on families with gifted and talented children. Vialle (2017) stated that the role of parental support of gifted children is under researched. The authors findings expressed the important role that care givers also play in supporting gifted children and that their views need to be respected (Vialle, 2017). Findings also indicated the importance for teachers to be educated in supporting gifted learners.

Kitsantas et al. (2017) investigated the perceptions of gifted elementary and middle school students through focus group interviews. They aimed to uncover how students viewed their academic and social-emotional functioning in a gifted program. The authors found that, generally, students seemed to enjoy the program, they felt more challenged and respected by their teachers and "understood the benefits" of the gifted program (Kitsantas et al., 2017, p. 278). However, they also wanted more choice, challenge and depth in their program, not merely more work or homework. The academic needs that arose in the interviews were: "differentiation,

challenge, the need for conceptual understanding (as taught via depth), and self-regulation” (Kitsantas et al., 2017, p. 273). The social emotional needs stated by the gifted primary students were: “challenge, prevention of bullying and enjoyment of learning” (Kitsantas et al., 2017, p. 274). The authors also discovered that the program alone was insufficient to meet the needs of the highest ability gifted students academically (Kitsantas et al., 2017). This study uncovered the vast range of abilities within gifted students and the need for gifted children to learn alongside like-minded peers, as well as be supported through differentiated instruction and in-depth learning.

Laine and Tirri (2016) surveyed a group of Finnish elementary school teachers on how they supported gifted students in regular classrooms. To challenge gifted students, Finland’s educational system offers differentiation, early admission to grade 1, grade skipping and subject matter acceleration for their gifted and talented students. Laine and Tirri (2016) uncovered that most teachers involved some kind of differentiation in their practice, however, they also concluded that teachers needed to be better informed on how to support and challenge gifted students. The authors surveyed teachers on how often they intentionally planned for gifted students and asked them to list the strategies that they used to support and challenge them. The results showed that 40% of teachers stated that they intentionally planned for gifted students once a week or more, 23% planned for gifted students on a daily basis, and 37% rarely planned with gifted students in mind. Nearly all teachers listed differentiation in their practice (94%) while 26% listed individual projects and studies. Laine and Tirri (2016) also aimed to determine whether other strategies mentioned by teachers were present in the surveys and they found extra strategies that included extra work, acting as teacher assistant, encouragement, demonstrating skills to peers and helping others (52% of teachers referred to these strategies). Because Laine

and Tirri (2016) found that most teachers used some differentiation strategies, they deduced that most teachers believe that gifted and talented students require differentiation. This opposed earlier findings that gifted students have been excluded from differentiation as the Finnish school system is 'egalitarian' (Tirri & Kuusisto, 2013) and there are no definitions or criteria to identify giftedness (Mönks & Pflüger, 2005). The authors discussed their concern that general education classrooms may not present regular and suitable challenges for gifted students (Laine & Tirri, 2016).

Effective Strategies for Teaching Gifted Students

Rogers (2007) investigated literature pertaining to supporting gifted students and found that gifted students require consistently challenging learning experiences that progress in difficulty in their specific areas of interest; they benefit from independent work, accelerated learning opportunities, interaction with peers of similar ability, and differentiation in instruction. Page's (2006) research described the strategies used by the New Zealand Ministry of Education and how important it is for teachers to be informed. She stated that teachers need to have a good understanding of the "theories and principles" surrounding gifted education to adequately meet the needs of their gifted students (p. 11). In New Zealand, a handbook, *Gifted and talented students: Meeting their needs in New Zealand schools*, is provided for schools. The information in the handbook serves as a guide for teachers and schools to provide supports to gifted students. The handbook states that each school "must develop a set of characteristics that reflects its own definitions of, and approach to, the concept of giftedness and talent" (Page, 2006, p. 11). Page (2006) acknowledged that developing definitions, approaches and concepts can be "daunting", however, it allows schools to use methods and aims that pertain to their own unique communities and school cultures (p. 11).

Research suggests that there are a variety of evidence-based strategies that benefit gifted learners including: online mentors, acceleration, pull-out programs, project-based learning, ability grouping and differentiated instruction.

Online mentors. Online mentors were found to be a successful strategy by Stoeger et al. (2017). The authors found that group mentoring was more successful than one-on-one mentoring. The study of this strategy took place as an extracurricular program, therefore it would most likely need to be supported or monitored by parents.

Acceleration. Acceleration means typically moving through curriculum faster than average learners and matching the difficulty of the curriculum to the student. Acceleration can include skipping grades, beginning kindergarten or college early, International Baccalaureate programs as well as acceleration in a specific subject (BC Ministry of Education, 2006; National Association for Gifted Children, n.d.). In the past acceleration was used to challenge gifted learners, however, in recent years this is no longer used. There are some misconceptions that advancing gifted learners to higher grades with older peers has a negative impact on their social-emotional wellbeing (Robinson, 2004).

Pull-out programs. Pull-out programs can include distance learning, specialized extra-curricular activities, pull-out interventions (such as RTI), summer programs or classes that focus on a specific subject (National Association for Gifted Children, n.d.). Pull-out programs often require extra funding and resources which are most often allocated to students who struggle with learning the curriculum or who struggle with certain disabilities.

Project-based learning. Project-based learning (PBL) is a student-centered and dynamic instructional method in which students obtain a deeper understanding through real-world experiences (George Lucas Educational Foundation, 2020). This strategy is often used as a

support for gifted learners (Rogers, 2007). There are misconceptions of this strategy; it is often believed that children merely complete projects and are not instructed through real-world challenges and problems (Hovey & Ferguson, 2014). Hovey and Ferguson (2014) discussed that teachers were often not well informed of project-based learning methodologies. The authors aimed to investigate teacher experiences and perspectives when using PBL and they found through surveys that there was no statistical significance to using PBL to support gifted learners due to teachers' lack of experience with PBL and gifted students (Hovey & Ferguson, 2014). However, other studies have found them to be beneficial due to the amount of choice available for students in both the creation and completion of projects (Hertzog, 2007).

Ability grouping. Ability grouping has been documented to give access to appropriate challenge for gifted students (Adams-Byers et al., 2004). Research has also reported that students gain not only academically but socially and emotionally as well (Kitsantas et al., 2017). Gifted students benefit from interacting and learning alongside like-ability peers (Adams-Byers et al., 2004; Kitsantas et al., 2017; National Association for Gifted Children, n.d.; Rogers, 2007). With BC's move to inclusion, homogeneous classrooms are not an option for our public schools; smaller pull out groups or teacher organized meetings may be available but are often scarce due to limited funding and lack of awareness surrounding the needs of gifted students.

Differentiated instruction. Differentiated instruction is a framework for teaching that aids teachers in meeting the diverse needs of the classroom (Callahan, Moon, Oh, Azano & Hailey, 2015). Carol Ann Tomlinson is the best known advocate for DI; she is an educator, author and speaker. She has defined DI as “a sequence of common-sense decisions made by teachers with a student-first orientation” which includes an “engaging learning environment”, “high-quality curriculum and clearly defined learning goals”, “ongoing assessments”, “response

to students' instructional needs" and "effective classroom management" (SuzzleQ, 2016).

Tomlinson (2016) also described DI as "responsive teaching rather than one-size-fits-all teaching" (QEP VideoCoursesForTeachers). Tomlinson (2016) discussed the importance of pre-planning for struggling or excelling students rather than improvising on the spot (QEP VideoCoursesForTeachers).

There are many DI strategies that would help support gifted students in inclusive classrooms. Learning stations or task cards can supply a variety of content. Interviewing students can help to ensure the content meets the needs of students and helps to strengthen relationships between the teacher and student. Targeting visual, tactile, auditory and kinesthetic senses provide variety for students. Teachers sharing their own strengths and weaknesses can help to support the social emotional needs of students as well as aid in relationship building. Using the "Think-Pair-Share" strategy in which students think about a topic, share with a partner and then share their ideas with the rest of the class allows students to build relationships as well as building upon each other's ideas. When using journaling children can exercise choice and this activity can be individualized for each student. Planning literature circles where children can listen to others read, practice reading themselves and discuss what they have read which helps to build a classroom community and support a variety of levels of capability. Working in ability-based groups offers the chance for students to work with like-minded peers. Working on open-ended projects provide students with choice, the chance to study their specific interests and there is no ceiling to the assignment so students have the chance to extend their own learning and take ownership of their own learning journey. "TeachUp" involves teaching high end curriculum, not simplifying, keeping high expectations of all learners which allows for each student to work towards their highest potential. Using technology that adjusts to individual students (such as

EdTech) allows children to work independently, relating to the interests of the students and reviewing the strategies used on a regular basis (Prodigy Education, 2017).

DI provides different ways for students to understand by modifying three main parts of the curriculum: “content, process and products” (Dixon, Yssel, McConnell & Hardin, 2014, p. 111), based on the interests of the students, learning profiles and student readiness (Callahan et al., 2015). DI uses both instruction and curriculum to support and challenge students in the regular classroom. Callahan et al. (2015) stated that efficacious programming for gifted and talented learners rests in the combination of using advanced curriculum and successful teaching strategies to create lessons that will amplify student learning outcomes. Tomlinson et al. (2003) stated that differentiation should be proactive, use varied materials, use individual and small groups, use variable pacing, should be knowledge and learner centered.

Dixon et al. (2014), researched DI, professional development and teacher efficacy in their study. They found that inclusive classrooms require teachers that comprehend how to differentiate instruction to ensure that all students reach their fullest potential. Their study confirmed that teachers who had more professional development felt more confident and successful in implementing DI. They uncovered that the grade level or subject area taught did not affect how successful a teacher felt in executing DI but professional development did (Dixon et al., 2014).

Callahan et al. (2015) researched the effectiveness of using DI in line with a Schoolwide Enrichment Model (SEM) and depth and complexity model. Their study involved gifted students and teachers of gifted students from classrooms and pullout programs. They found that their mixed method model was a feasible option to enhance the learning of gifted and talented students (Callahan et al., 2015). The authors discussed how “40% to 50% of traditional

classroom content and skill instruction at a given grade level is redundant for gifted students; yet gifted students spend up to 80% of their time in classrooms working on the same content” (Callahan et al., 2015, p. 139). They stated that often teachers merely make small adjustments to curriculum in order to plan for their gifted learners. Callahan et al. (2015) also discussed how DI has been proven to be successful in single classrooms as well as in school wide implementation.

Tomlinson et al. (2003), agreed that gifted students are under supported in classrooms and also claimed that teachers only make minor modifications in regular homogeneous classrooms. Tomlinson et al. (2003) stated that “gifted students received no differentiation in 84% of the learning activities in which they engaged” (p. 123). The authors also expressed that most modifications were made to support student “deficits” rather than strengths when supporting gifted students with disabilities (Tomlinson et al., 2003, p. 124). Tomlinson et al. also stated that brain research has shown that students should be taught “within a child’s zone of proximal development”, material that a child cannot master alone, “but can succeed with scaffolding or support” (p. 126).

Hertberg-Davis (2009) stated that DI even in small amounts has proven to have a positive effect on student attainment and learning mindset (p. 253). The author discussed how DI can be time consuming for teachers when first implementing the framework, however, the workload decreases over time. She also states that there are many misconceptions surrounding DI such as, that it is too time consuming to implement, that it is a “form of scaffolding for struggling learners”, that it prioritizes fun activities over curriculum, and that it is merely a “group work strategy” (Hertberg-Davis, 2009, p. 252). Hertberg-Davis (2009) also suggested that there is a need for relevant and continuous professional development in order to make DI a usable model for educating gifted and talented learners.

DI could be a successful tool for stimulating the abilities of gifted learners who have previously been identified and discovering the talents of gifted learners who have not been so easily identified (Hertberg-Davis, 2009). DI is a research proven framework that can be integrated into classrooms with sufficient training to support gifted and talented students. Through giving students more choice they become more independent learners. DI has also been credited to benefiting classroom management as students are seen to be more engaged in their learning (Weselby, 2020). DI pays particular attention to “big ideas” in a subject area, adjusting the difficulty of a challenge, taking into consideration the interests of the students in the classroom, and corresponding with the pace of learning (Callahan et al., 2015). This coincides nicely with the big ideas and deeper learning outlined in the new BC curriculum, moving away from rote memorization to more in-depth understanding. It may not be a perfect solution but, given the lack of resources and funding that today’s teachers and schools face it is a viable option for teachers in British Columbia who are trying to support gifted and talented students in inclusive classrooms.

Using Differentiated Instruction in BC

BC is using many of the strategies that research has shown to be effective in differentiating for gifted learners including: adapting content, processes, products and environment (BC Ministry of Education, 2006; Weselby, 2020). They suggested that content adaptation could include: “acceleration, telescoping, compacting, independent study, tiered assignments and learning centres” (BC Ministry of Education, 2016, p. 13). Acceleration involves challenging students through advanced curriculum, telescoping is adjusting the amount of time that students have to learn the curriculum, compacting allows students to demonstrate what they know and then move on to focus on other areas of curriculum (e.g., developing an

IEP), independent study allows a student to pursue topics of interest using a variety of skills (e.g., problem solving, creative and critical thinking, research skills, etc.), tiered assignments allow students to tackle the same content using different questions or activities, learning centres involve students working at activity stations which can be individual or group activities which supports a variety of difficulties and interests (BC Ministry of Education, 2016, pp. 14-19). The BC Ministry of Education (2016) also discussed how the process (i.e., how students learn) includes higher level thinking, creative thinking, problem solving and research skills. Product is another area that can be differentiated, product being what the student creates to demonstrate their learning. The BC Ministry of Education (2006) lists “models, diagrams, letters, videos, debates, displays, dramatizations, multimedia presentations, concept maps, stories, sculptures, paintings, songs, scripts, classification systems, advertisements and cookbooks” as product examples (p. 31). The BC Ministry of Education Resource Guide (2016) also discusses differentiating the learning environment. They stated that teachers need to be aware of the physical and social-emotional learning environment that they create. The physical environment could include: centers that involve student interests, different work spaces and a variety of learning materials, whereas the social-emotional environment needs to be “accepting”, “safe” and “supportive” (BC Ministry of Education, 2016, p. 32). They also mention the importance of such an environment for gifted students as they can often feel separate and out of place.

Conclusion

Many studies, though looking at different perspectives of gifted education, mentioned at some point that teachers need to be more informed on the topic of gifted education (Adams-Byers et al., 2004; Borders et al., 2014;. Kitsantas et al., 2017; Vialle, 2017). Vialle (2017) found that parents had many worries regarding the lack of support in schools and high competition for

spaces in gifted classrooms, this especially true in Australia where Gagné's Differentiated Model of Giftedness and Talent (2005) has been included in each state's policy. In Finland there is no official policy for such students and they are having the same problem. More research needs to be focused on professional development for teachers. The definition of giftedness is influenced by Renzulli, Gagné and Gardner's theories of giftedness and talent (BC Ministry of Education, 2016). This chapter described key features and information about giftedness, identified strategies that are recommended for supporting gifted learners and reviewed current research in the field with a focus on how DI can be used to challenge gifted and talented learners. Hertberg-Davis (2009) stated that "drive-by professional development" sessions are ineffective and because of that I hope to inspire teachers to collaborate beyond my workshop, and share the resources that they have made among each other. The overall goal is to create adequate programming that reflects each pupil's uniqueness. *The Gifted Education Resource Guide for Teachers* (2006) stated that it is not possible for a classroom teacher to meet the variety of needs of every student they encounter, they need to collaborate with others.

Chapter 3

Considerations for Implementation of *Illuminating the Brightest Stars: Using Differentiated*

Instruction to Support Young Gifted and Talented Students in Early Primary Classrooms

Workshop

The purpose of this project is to create a professional development workshop to provide teachers with information about young gifted and talented students and how to better challenge and support these students in inclusive classrooms using differentiated instruction. I chose to create a workshop because teachers need to understand how to recognize giftedness and I truly believe in collaboration among teachers. I think that is one of the most beneficial and under-utilized resources that we have. Through this workshop, I can inform teachers on strategies to appropriately plan for and support their gifted learners in today's classrooms and encourage collaboration.

Overview of the Workshop

This presentation is focused on BC's inclusive classrooms and its new curriculum. This workshop gives educators some history of gifted and talented theories and how they associate with BC's definition of giftedness. It discusses issues, misconceptions and challenges in supporting gifted students. During the presentation I share my own experiences and struggles in supporting gifted learners, I discuss perils that under-supported gifted students may face, research-based support strategies for gifted and talented learners and the workshop supports participants in collaborating to create DI lesson plans for their specific classrooms. This in-service can be presented as a full day workshop or divided into two parts (e.g., Part 1: slides 1-43 and Part 2: slides 44-62). Part 1 assesses prior knowledge and provides a background of the theories that have influenced BC's definition of giftedness, while Part 2 is more practical where

teachers can apply what they've learned in Part 1. If necessary, participants could be encouraged to plan their lessons in-between the two workshops to save time.

Slides 1-5: Assessing prior knowledge and sharing my experience. I decided to begin the presentation by discussing the prior knowledge of the participants, sharing my own experience and asking the participants to do the same. The first slide contains a video which provides a 'hook' for the presentation. It demonstrates what teachers can encounter in the classroom when teaching a gifted and talented student and what may occur when a gifted student is unchallenged. This clip from the movie *Gifted* shows a teacher engaging with a gifted student. The teacher struggles to engage the student and the student begins to demonstrate behaviours (calling out and distracting others) as she is bored and frustrated with the material that the class is learning. The teacher comes to the realization that the student may be gifted when she begins to ask her complicated addition questions. In showing this video, I hope to encourage teachers to share their experiences and frustrations in working with gifted students.

To introduce the topic of giftedness to the participants I will ask the question "How does your school or district support its gifted students?" We will brainstorm together different strategies that are currently being used. I will also ask if the participants believe that these students are 'fully' supported and if they are tagged with a gifted designation. This will allow me to better understand the prior knowledge of the teachers in attendance. Participants will record these answers on chart paper to refer to later on in the presentation. I will then shift the focus to young gifted students. How are the young gifted students being supported? We will again discuss in groups, which strategies are used and participants will add these answers to the chart paper in a different colour. This should bring to light, that there are far less strategies available to support young gifted learners. It is important to bring attention to the lack of supports and

resources available to young gifted learners in BC. It is also necessary to discuss how, as for many designations, early intervention is critical in supporting gifted students (Vialle, 2017; Roessingh & Bence, 2017).

It is also important to address the lack of consistent and in-depth professional development available to teachers, and how ‘drive-by’ professional development is less effective for everyone (Hertberg-Davis, 2009). Teachers need to be aware that consistent and continuing professional development is paramount in supporting the needs of all students (Hertberg-Davis, 2009; Yuen et al., 2018). This will allow teachers to better understand the importance of constant and thorough professional development. I believe it is important to relate to my own experience in order to connect with the participants of the workshop. I want to share my own struggles and frustrations as one goal of this project is to enhance collaboration between teachers; I believe that sharing our own experiences helps to create understanding and connections among colleagues. The BC Ministry of Education (2006) stated that teachers need to collaborate in order to fulfill the needs of all students, just like building relationships with our students, we need to create a positive learning environment among teachers. I will ask participants to share their struggles in supporting gifted and talented students and by sharing my own experiences I hope to create a safe environment where teachers feel comfortable to share.

Slides 6-18: History, theories and research of giftedness and talent. These slides discuss the founder, the main theories of giftedness and talent and how our thinking has evolved through the years. It is necessary to discuss that the variation in the definition of giftedness has complicated supplying gifted students with supports. It is also important to give an understanding of the history of giftedness and talent as it will allow for teachers to have a more in-depth understanding of the material covered during the workshop and build a common understanding

of what giftedness is. As this presentation is for BC teachers it is important to understand what definitions and guidelines are put forth by our province, as argued by Page (2006). Educators need to understand that BC's definition is guided by the theories of Renzulli, Gagné and Gardner. It is imperative that teachers fully understand BC's definition. It is crucial that participants understand all three theories as they are not 'stand-alone', they need to be used alongside other models of giftedness as suggested by Page (2006). It is necessary, also to discuss IQ tests, as they were, at one time, the sole indicator of intelligence. It is important for participants to understand how far we have come in our understanding of giftedness so that we move towards differentiation and not just the historic method of tests and exams, but creating a more in-depth understanding as suggested by Kitsantas et al.(2017) and Callahan et al. (2015).

Having a 'Think, Pair, Share' activity allows workshop participants to digest the information and discuss with their colleagues. 'Think, Pair, Share' will not only allow teachers to begin collaborating and building or strengthening relationships with one another, it also allows them to ask any questions that may arise from their discussions. These slides discuss some struggles teachers can face when supporting gifted students as well as outcomes for gifted students when they are not fully supported. Teachers need to understand the financial burden that can be imposed on some families with gifted children as discussed by Vialle (2017). Teachers also must be aware that many research-based strategies do not fit in to BC's inclusive model or are only available with an IEP (Independent Education Plan). One of the main issues present in supporting gifted students is the knowledge of teachers and their personal beliefs in learning as argued by Laine and Tirri (2016).

With this information, I hope that participants will be motivated to reflect on their own learning beliefs and how they support the learners in their classrooms. It is also imperative to

clear up any misconceptions surrounding gifted learners; how they are rarely, if ever, well rounded and how many gifted students often present with comorbidities, as mentioned in the BC Ministry of Education definition (2016). It is also necessary to convey the overall goal of the workshop to the participants.

Slides 14-17 discuss the issues, challenges and misconceptions of gifted education. While discussing BC's definition of giftedness it is also important to address that, with the move to inclusion gifted students have been left at a disadvantage (Borders et al., 2014). BC's new curriculum provides the opportunity for deeper understanding and in-depth learning, however, there has been little discussion on how gifted education fits with the new curriculum (Lo et al., 2019). One issue in providing supports to gifted students is that teachers do not wholly understand giftedness. The province might not be motivated to identify gifted students because there is no funding associated with the designation (unlike autism for example). It is important for teachers to know that gifted students are often not identified unless they have another condition in which case they often remain unchallenged in the inclusive classroom (Tomlinson, 2003) and this can cause behaviours as we saw in the opening video. As a result, I introduce a variety of research-based strategies that can be used to engage and challenge gifted and talented students. Teachers would benefit from an overall understanding of which strategies can be used to successfully support gifted learners and to discuss the pros and cons of each strategy. It is necessary for teachers to be informed of a variety of strategies so that they can use them to meet the needs of their students.

Slides 19-30: Differentiated instruction. To introduce differentiated instruction I will ask the participants to discuss their prior knowledge (what they know about DI and what strategies they may use) at their tables. It is mentioned by Laine and Tirri (2016) that many

educators use some differentiation strategies in their classrooms. This may make the task seem less daunting to the participants but Laine and Tirri (2016) have argued that regular classrooms are not sufficient for gifted learners. Each table will then present their ideas and I will record them on chart paper. Later on in the presentation we will refer back to the posters created by the participants in order to reflect on how their thinking has evolved.

I will introduce Carol Ann Tomlinson and play a short video recorded from one of her introduction to DI lectures, as she is considered the “guru” of DI. These slides clarify that DI is not a program but a way of teaching. Participants need to understand the importance of knowing their students when using DI in their classrooms as gifted students need to be challenged constantly in their area of interest (Rogers, 2007). Hertberg-Davis (2009) argued that differentiation, even in small amounts is effective; the author also mentioned that DI can help discover the talents of unidentified gifted learners. This section discusses some key principles and goals of DI because teachers need to know how to differentiate (Dixon et al., 2004). Dixon et al. (2004) stated that teachers with more professional development felt more confident. I also address misconceptions that DI creates much more work for teachers and suggest collaboration to help alleviate the workload (Hertberg-Davis, 2009). It is important to dispel misconceptions that differentiated instruction is play-based and discuss children learning in their ‘zone of proximal development’ (Tomlinson et al., 2003). Weselby (2020) stated that DI can help with behavior management in the classroom because students are more engaged when learning in their ‘zone of proximal development’.

Slides 26-30 outline how content, process, product and environment can be adapted to differentiate instruction for a diverse group of learners as laid out in the BC Ministry of Education’s *A Resource Guide for Teachers* (2006). Participants must understand how to

differentiate these aspects of learning in order to support gifted learners (Dixon et al., 2004; Kitsantas et al., 2017). These slides explain the methods and strategies of differentiating instruction. Participants will have the understanding that DI embraces equity not equality, and success can look different for every child. DI has been proven to be beneficial as it allows for choice and in-depth study (Kitsantas et al., 2017). Callahan et al. (2015) argued that advanced curriculum and successful teaching strategies are needed for gifted learners.

Slides 31-43: Differentiated instruction for young gifted students. In order to show participants how differentiation can be implemented in a primary classroom I will show a video of a 4th grade math lesson and a video of a 2nd grade math lesson. Before watching the videos I will ask participants to watch for differentiation strategies, after watching the videos we will discuss different strategies that were used. These slides discuss some strategies that have been proven to support, specifically, gifted learners. Tomlinson et al. (2003) and Callahan et al. (2015) stated that teachers often only make minor modifications which are usually for student deficits, not to challenge exceptional learners. Differentiation works with ‘big ideas’ similar to BC’s new curriculum. These videos allow teachers to see in-depth application of DI in a primary classroom.

It is important to discuss the large amount of evidence suggesting that gifted students benefit from working alongside like-minded peers or peers of similar ability (Adams-Byers et al., 2004; Kitsantas et al., 2017; National Association for Gifted Children, n.d.; Rogers, 2007). Through interest centers gifted students can connect with peers who share the same interests. Interest centers and compacting allow students to pursue, and share with others, their specific area of interest (Rogers, 2007). Tiering addresses the importance of intentionally planning for high attaining learners and adding scaffolding or adding supports for other students to be

successful, the idea of ‘Teaching Up’ as discussed by Tomlinson (2016) in her introductory DI lecture. After, I discuss successful assessment strategies in differentiated classrooms as Tomlinson (2016) stated that assessment is integral in the implementation of DI. It is imperative to set clear goals and grades should be based on set criteria, focus on performance, process and progress rather than right or wrong or being compared to other students.

Slides 44-50: Creating DI lesson plans to support gifted learners. The final piece of this workshop invites teachers to apply differentiated instruction within the teaching units that they are familiar with. If presenting the workshop in two parts, it is advisable for the presenter to ask participants to bring a sample unit plan to receive feedback. Slides 45-46 provide examples of DI lessons that can be used in a primary classroom to support gifted learners. These lesson plans demonstrate the structured freedom that DI supplies in a classroom. I chose to show and discuss math and literacy lesson plans because participants will be planning for those subjects later on in the workshop. At this juncture I will separate the participants into grade groups and they will be asked if they would like to focus on math or literacy. I will give the participants print outs of BC’s curriculum big ideas as well as three different DI lesson plan templates for them to choose from. Participants can choose to work independently, however, I will encourage them to collaborate with a group as mentioned by BC’s Ministry of Education (2006).

Slide 51-62: Sharing resources. The participants of the workshop will be asked to share the lesson plan that they have created with another group or individual. It will be a chance for them to give and receive feedback. They will be given 10 minutes to complete this task, 5 minutes for each group to share and receive comments. I will also give the option of sharing with the whole group. We will then refer back to the DI lists that we made in the first part of the workshop and address the questions, “What could we now add to those lists? Is there anything

we should remove from them or change?” to shed light on the information that they can now use to inform their own teaching. These slides lists resources that participants may find useful if they are interested in further investigating DI or giftedness. I will reiterate the main points of my workshop and to conclude the workshop I will answer questions that participants may have. After displaying the references slides, I will hand out a feedback form for participants to complete and hand in anonymously. The feedback form will ask for strengths and suggestions regarding my workshop. These slides include the three lesson templates and the feedback form questions that must be printed prior to the workshop.

Conclusion

The intention of this presentation is to support BC’s teachers in providing adequate programming for gifted students in inclusive classrooms. I chose to create a professional development workshop for teachers because teachers need information on how to recognize and support giftedness in today’s classrooms. Through ongoing professional development and collaboration DI can be a successful strategy to support and nurture the learning of young gifted and talented students. My goal in creating this workshop is to assist teachers in identifying gifted learners, guide them in using DI as a support for their young gifted and talented students and inspire them to work together by sharing not only their ideas but the successes and struggles in their journey of implementing differentiation in their diverse classrooms.

Chapter 4

Reflections and Conclusions

Throughout the process of creating this project it was evident that gifted students are under supported in BC's inclusive classrooms. My initial thought was that I needed to write to my district, government and whoever would listen, to voice my frustrations; however, by working through this process my judgements evolved. At the beginning, I believed that the 'system' was at fault but my thinking changed as I researched gifted education and successful strategies used to support them. Our current system needs to change at such a fundamental level that I began thinking, what can I do now? What can we as teachers do to support this neglected group of exceptional learners? Now I believe that there is still more that teachers can do to support not only young gifted students but the diverse needs of all students in their inclusive classrooms. I felt that I needed to know more about gifted and talented students and which strategies are proven to support them to achieve their highest potential in order to help bring justice to gifted learners.

When beginning this project I was frustrated and determined to advocate for gifted and talented students. I am still frustrated that our current educational system is excluding gifted and talented learners from necessary supports to nurture their learning, with the exception of students with comorbidities, but we; as teachers, need to do what we can to help. I believe that gifted students can often be seen as a hindrance, and I myself am guilty of asking them to help a friend or creating an activity or extension on the spot believing that I was supporting them. But now I know that there needs to be specific and thoughtful planning in place to extend and assess the learning of gifted students. I was surprised to find that even homogeneous gifted classrooms

required differentiation. That thought had never crossed my mind. At all levels it is necessary to intentionally plan for the high-attaining students.

I had always believed that gifted students would find a way and have an urge to participate in and express their passions and talents. I had many parents throughout my career that would insist that their child was gifted because they were bright and most things came easy to them. As I investigated I was introduced to the fact that many gifted and talented students have other comorbidities that can hinder their diagnosis. That is something that I had never thought of, this opened my eyes to how vastly diverse the gifted and talented could be.

As I investigated the issues involved in gifted learning, I found that one of the main problems is 'drive-by' professional development. Teachers are already spread thin, trying to succeed in teaching inclusive classrooms. Throughout my career in BC I have been frustrated by the professional development system. Teachers are made to sit through day long presentations and then we are given little to no time to implement these theories, strategies and programs into our classroom schedules and routines. Teachers need to adapt and mold these programs for our specific students and classrooms and evolve them each year. Because of my frustrations with professional development, I wanted teachers to leave my workshop with something they could use in their own classroom. I also hoped to inspire the attendees to collaborate with other teachers in order to share ideas and lighten the workload.

I also believed some misconceptions about differentiation before researching the topic. When first thinking of the concept it seemed impossible, but after researching DI it may be more work at the outset, however, in the end it helps the whole classroom run smoothly. After implementing learning stations in my classroom, it was a grueling amount of work to set up but we use these stations almost every week and now the set-up is minimal as I have previously

prepared it all. Once the children knew what was expected of them and were familiar with the stations they became more involved in their own learning and I was freed up to connect with struggling students, complete assessments or work with small groups on specific material. So far I have only involved DI in literacy in my classroom but I look forward to differentiating other subject areas to better support all of my students.

With the move to inclusion teachers face overwhelmingly diverse needs in today's classrooms. I believe that DI could be a successful strategy to foster the learning of gifted and talented students. Even in small amounts it has proven to be beneficial, however, I think with consistent collaboration and professional development teachers can advance the learning of young gifted students that they encounter. We cannot keep neglecting the education of this group of learners, it is our responsibility as educators to support and advance these students to the best of our ability. We need to embrace our promise to be life-long learners and better our practice.

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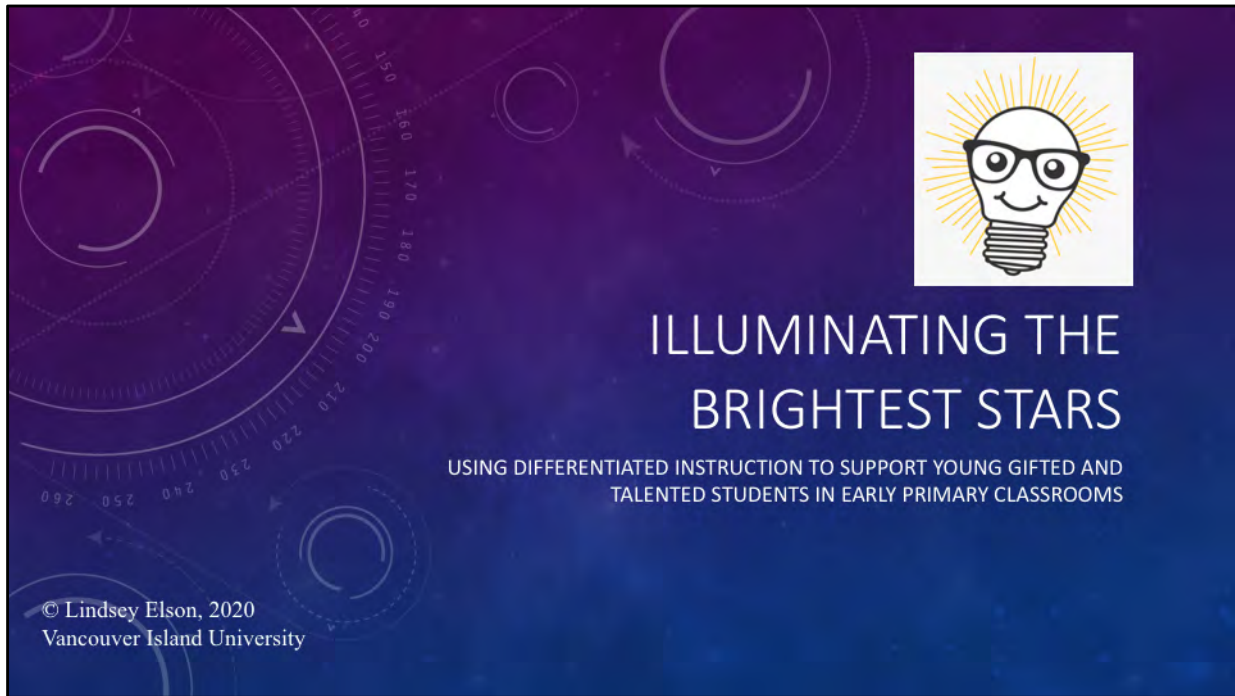
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Appendix A

***Illuminating the Brightest Stars: Using Differentiated Instruction to Support Young Gifted
and Talented Students in Early Primary Classrooms Workshop***



Welcome, introduce myself and discuss my background in teaching and working with children.

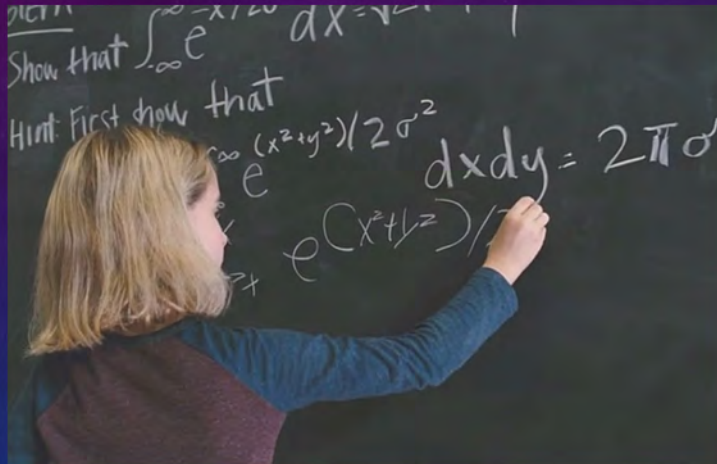
This is a full day workshop but can be divided into 2 parts:

Part 1 - Slides 1-43

Part 2 - Slides 49-60

Materials needed: Chart paper, markers (at least 2 different colours for each table group), printouts of BC's math and literacy curriculum, printouts of lesson plan templates and feedback slip (available at the end of the presentation).

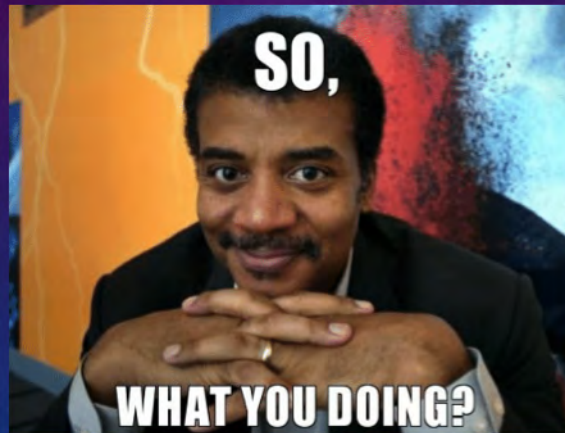
GIFTED



This is a video that depicts a gifted student being disruptive in the classroom because she is bored. At the beginning of the video the teacher is unaware that the child is gifted and towards the end of the clip the teacher comes to the realization that the student is working far beyond her peers academically. This demonstrates how gifted students can be disruptive in the classroom and are usually under supported. It is often because students are under supported that they are disruptive.

Retrieved from <https://www.youtube.com/watch?v=At-cmsINZBU> (2 mins)

HOW DOES YOUR SCHOOL/DISTRICT SUPPORT ITS GIFTED STUDENTS?



In their table groups the teachers will brainstorm all of the different programs or strategies that they currently use in their school or district to support gifted students and record the strategies on to chart paper. Give the tables approximately 5 minutes to think, share and record ideas.

HOW DOES YOUR SCHOOL/DISTRICT SUPPORT ITS YOUNG GIFTED STUDENTS?



Hand out different coloured markers and ask the teachers to now record the strategies and programs that they use specifically for **young** gifted students. Give the table groups approximately 5 minutes to think, share and record their strategies on to chart paper.

After tables have recorded their ideas, have each table read out what they have recorded. This should point out the lack of supports for young learners. Are the young gifted learners in your school/district being supported? Are they being tagged? Discuss how research suggests that early intervention is critical when supporting gifted learners (Roessingh & Bence, 2017). There is also a lack of consistent and in depth professional development available for teachers.

Display the chart paper lists in view of the participants for the remainder of the workshop.

MY EXPERIENCE



Discuss how my interest was sparked in giftedness. I had a student, let's call him Bert, that I struggled to help and found little support from my school and district due to his age. I was further intrigued by my professor's comment when starting my masters that said "we put so much effort into supporting struggling students when a well supported gifted student could very well go on to cure what those students struggle with." I had never thought of that point of view before.

Has anyone else had a frustrating experience trying to support and challenge a gifted student? (Allow 5 minutes for sharing).

WHAT DOES GIFTED AND TALENTED MEAN?



The term gifted and talented has evolved over the years but one fact remains, gifted and talented students require specific support and guidance to reach their highest potential. One particular detail that has complicated supplying gifted students with supports is the difficulty and variation in defining giftedness.

THEORIES OF GIFTEDNESS

- Renzulli's Three Ring Conception of Giftedness
- Gagné's Differentiated Model of Giftedness and Talent
- Gardner's Theory of Multiple Intelligences
- Intelligence Quotient (IQ) tests

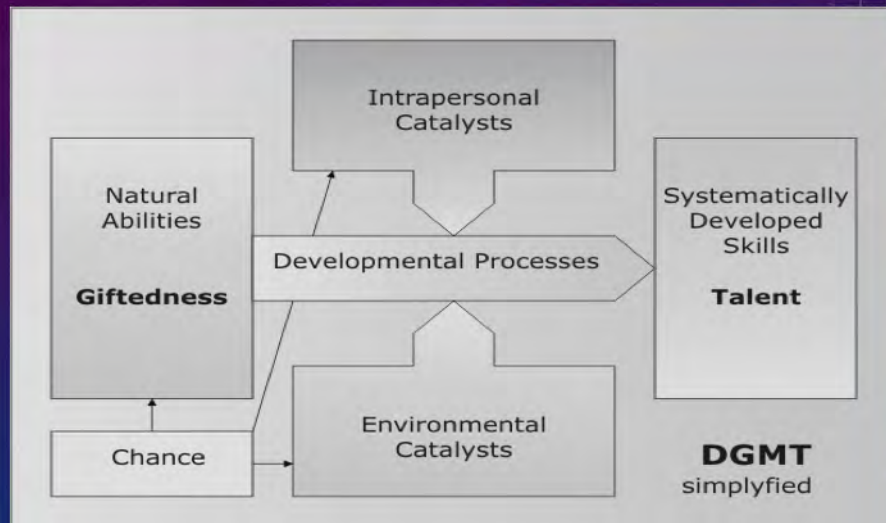
There are four main theories of giftedness that have moulded our current understanding of gifted and talented learners in BC.

RENZULLI'S THREE RING CONCEPT OF GIFTEDNESS



Renzulli's theory viewed giftedness as an attribute, not a behaviour. His theory argues that when people demonstrate these 3 characteristics they are gifted. Some argue that this theory does not include people who have not yet found their area of talent and that this theory should be used alongside other theories to create a full understanding of gifted learners (Page, 2006).

GAGNÉ'S DIFFERENTIATED MODEL OF GIFTEDNESS AND TALENT



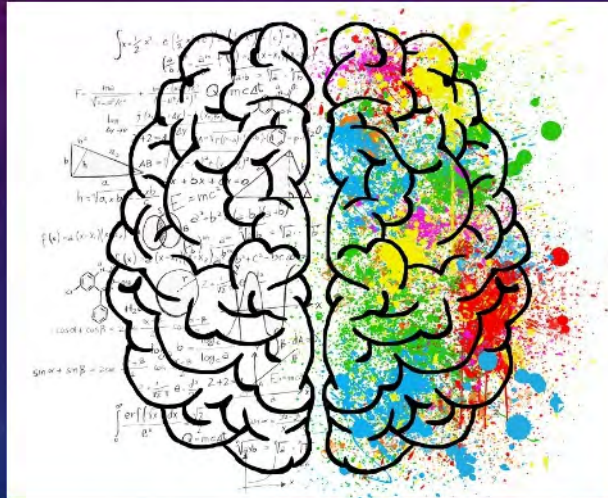
Gagné separates giftedness and talent in his theory, he views giftedness as a “natural ability” and talent as “gained through experience” (Page, 2006). This model acknowledges that children will have varied opportunities and experiences which could effect the outcomes of their talents sometimes preventing them from reaching their highest potential. The strength of this theory is that it acknowledges that experiences and development can effect gifted persons. For example, a child that gifted or born with high intellectual or creative abilities could be effected by many things such as health, self-management, temperament, self-esteem (intrapersonal catalysts) or could be influenced by culture, family situation (poverty, addiction, abuse for example), programs (after school care, sports, music lessons) (which are environmental catalysts) that could effect a child in reaching their fullest potential or demonstrating their talents. Through practicing and engaging time with the talents they have, they develop strengths. Intelligence and ability is not fixed, by engaging in certain things we develop our talents.

GARDNER'S THEORY OF MULTIPLE INTELLIGENCES



Gardner's theory differentiates intelligence into 8 different categories. This theory **addressed** the advantage of expanding on a child's strengths (Page, 2006). This also is not a stand alone model. Page (2006) suggested that this theory be used as part of an overall understanding and alongside other models of giftedness and talent. Some authors do not consider this a scientific theory as they believe that Gardner's research was not rigorous enough to qualify (BC Ministry of Education, 2006). This makes sense for us as educators even if it isn't "scientific enough". This theory complements Renzulli's theory because it argues that gifted children demonstrate great commitment to certain tasks, above average ability and creativity. There are misconceptions that gifted students are outstanding or successful in all areas, this is not true. This theory also links up with IQ tests which assesses a persons ability in a specific area.

IQ TESTS



In the past, IQ tests were effective as an indicator of giftedness. They can be beneficial for some students as they can help parents and teachers to better understand a child's abilities and better plan for their education, however, IQ tests have been found to be less effective than originally thought as they do not test for a variety of intelligences and talents, they often focus on 3 areas: verbal language, abstract reasoning (ex: maps, puzzles, etc.) and mathematical areas. IQ tests do not take into account or test for skills such as music, arts, or movement to name a few. Page (2006) stated that IQ tests can be one mark of giftedness but it is no longer thought to be the only measure. IQ tests are no longer adequate to measure the way we view intelligence today (as per the 3 previous conceptions) that inform the BC conceptualization of giftedness. Many of the more recent theories paint a more broad picture of gifted and talented students, they are now seen to be a diverse group of abilities and talents.

BC'S DEFINITION OF GIFTEDNESS



"A student is considered gifted when she/he possesses **demonstrated or potential abilities** that give evidence of **exceptionally high capability** with respect to **intellect, creativity,** or the **skills associated with specific disciplines**. Students who are gifted **often demonstrate outstanding abilities in more than one area**. They may **demonstrate extraordinary focus in their particular areas** of talent or interest. However, they may also **have accompanying disabilities** and should not be expected to **have strengths in all areas of intellectual functioning.**"

(Special Education Policy Manual, 2016 p. 53)

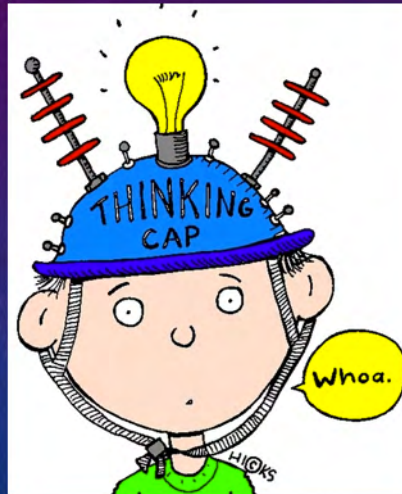
The definition of giftedness varies from province to province. Because the definition of giftedness varies from province to province there are misconceptions or a lack of understanding of what giftedness is so it is difficult to recognize gifted students in our classrooms. BC's definition brings together all of the theories that we have discussed. Especially with our recent shift to inclusive classrooms, gifted students have been left at a disadvantage (Borders, Woodley & Moore, 2014). BC's new curriculum provides the opportunity for deeper understanding and in-depth learning, however, there has been little discussion on how gifted education fits with the new curriculum (Lo et al., 2019).

Teachers not understanding what giftedness is is a big problem in providing supports. BC is not motivated to identify gifted students because there is not funding associated with it (unlike autism for example). In my head, my first thought after reading this quote was "are gifted and talented students only being supported in BC when they have an accompanying disability?" Often times giftedness can also be masked by an underlying learning disability.

In my school, we use a variation of Response to Intervention in which struggling students have small group or one on one interventions with a learning support

teacher in order to help them through the curriculum, normally specifically in literacy or math. In my 4 years teaching in BC, I have yet to hear of a gifted student using this resource.

THINK, PAIR, SHARE



Allow 5 minutes for teachers to think, pair up with a partner and then share their understanding of BC's definition of giftedness. Allow some time for questions that may arise (5 minutes).

ISSUES IN SUPPORTING GIFTED STUDENTS



- Many available programs are provided outside of schools (Vialle, 2017)
- Gifted (homogeneous) classrooms do not fit into our inclusive model but have been proven to be very beneficial for gifted students (Kitsantas, Bland & Chirinos, 2017)
- Teachers need to be better informed (Laine & Tirri, 2016)
- Few programs for young gifted learners

Programs could include: extra curricular activities, tutors, getting evaluated by a child psychologist, summer camps, specific challenging resources, etc. Children who don't have access to funding or supportive parents may pass through the system un-tagged. Gifted classrooms can still be unchallenging for the highest ability students. "The only way to create a homogeneous classroom is if I'm alone in the classroom, and even then I'm not sure." Teachers are differentiating for gifted students but not to a truly effective extent. Everyone has different ideas surrounding giftedness (which is a big issue in gifted education) but they also conceptualize inclusion differently. Inclusion needs to mean that students are given the supports they need without excluding them from inclusive classrooms, however, that should not mean that they can't leave the classroom occasionally to work with peers of a similar ability if that is what's best for their education.

CHALLENGES AND MISCONCEPTIONS

- Lack of resources
- Understanding of subject matter
- How to modify for gifted learners
- Teacher's personal beliefs surrounding learning
- How to address mixed-ability classrooms
- Gifted students are not being identified unless they have other conditions

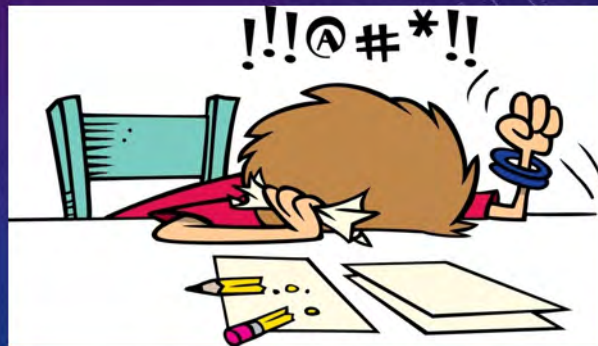
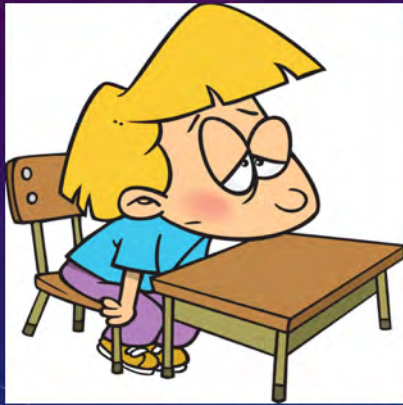
(VanTassel-Baska & Stambaugh, 2005)



There are many misconceptions regarding gifted and talented students as all around bright students. I think we have all had that parent in our class that believes their student is gifted because everything comes easy to them and they are 'bored' with class work.

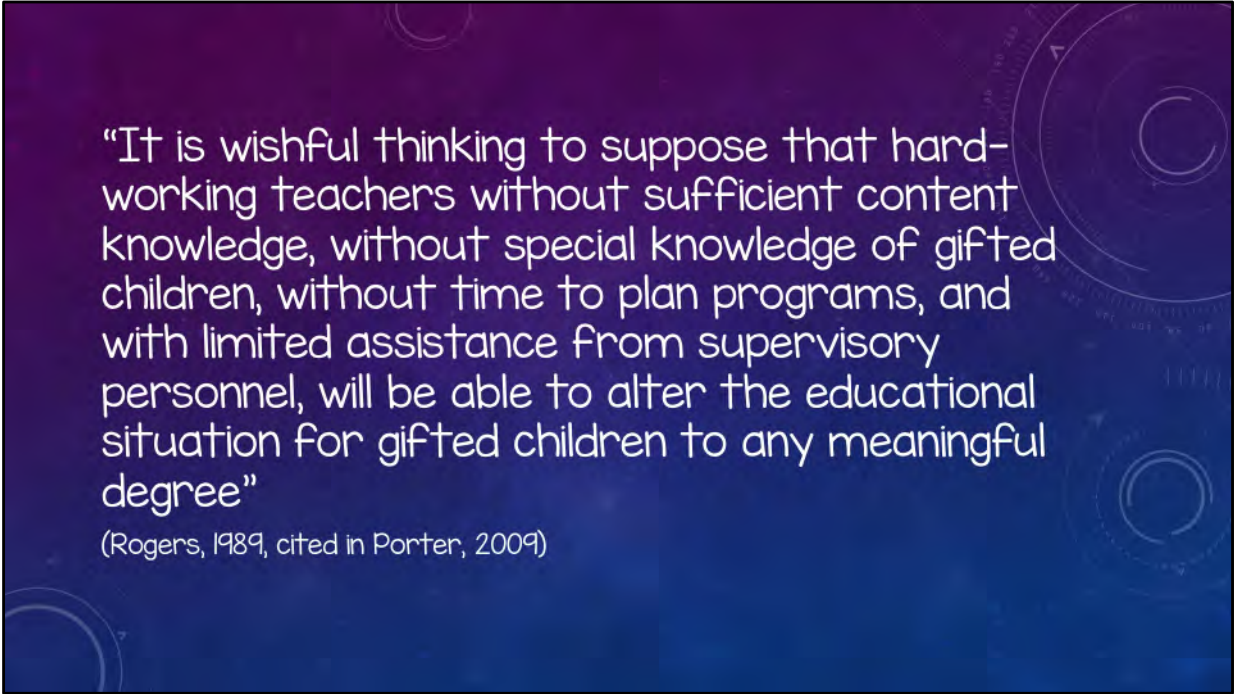
Gifted and talented students often have comorbidities such as autism, anxiety, learning disabilities, etc.

WHAT HAPPENS WHEN GIFTED STUDENTS ARE NOT SUPPORTED?



When gifted students are left unsupported not only are they at risk for underachieving but they can display behaviours (as we saw in the opening video) due to boredom or frustration. When they are bored they can distract others. Without support gifted students have a high drop out rate in high school and college. Often times when gifted students reach university, they come to the realization that they are not the top of the class anymore and sometimes they do not know how to learn. Because of their fear of failure, and high levels of intelligence, they can easily hide their challenges until it is too late to **support** meaningful change. Anxiety, depression and perfectionism are also often common in gifted students and they need support for those disorders.

For example my cousin is gifted. He has done some amazing things, built a guitar, fixes cars, built an amp, rebuilds cars, rewired my aunt's house (just to name a few things), but there were no supports for his talents when he was in school. He dropped out in grade 9 and has never completed any schooling since. He teaches himself, mostly through the internet, but he has no formal diplomas or certificates and therefore, for the most part, is not employable.



“It is wishful thinking to suppose that hard-working teachers without sufficient content knowledge, without special knowledge of gifted children, without time to plan programs, and with limited assistance from supervisory personnel, will be able to alter the educational situation for gifted children to any meaningful degree”

(Rogers, 1989, cited in Porter, 2009)

I know that we are already challenged by our current positions with little time to do much other than survive. But my goal in making this presentation was, “how can we make it manageable for teachers to support gifted students?” How can I help to alleviate stress and misconceptions surrounding giftedness and differentiated instruction in mixed-ability classrooms that include gifted and talented learners. I hope to encourage teachers to collaborate in order to share knowledge and lighten the workload by sharing wisdom and resources. One of the issues I encountered while researching this subject was consistent and continuing professional development is paramount (Yuen et al., 2018).

*actually in Margrain, Lee & Farquhar

WHAT DOES THE RESEARCH SAY?

- Early Intervention
- Online mentors
- Acceleration
- Pull-out Programs
- Project-based Learning
- Ability Grouping
- Differentiated Instruction



Current research states that there are many different strategies that help to support gifted learners. Just as with many other tags, early intervention and diagnosis is crucial in supporting gifted learners.

One-on-one as well as group **mentoring** was found to be successful in supporting gifted and talented learners. However, what does that look like in a classroom?

Acceleration is moving students through curriculum faster than typically normal this could include: IB programs, starting kindergarten early, or skipping grades. I don't believe BC uses this strategy anymore especially in primary school.

Pull-out programs include: distance learning, specialized extra curricular activities, pull-out interventions (such as RTI), summer programs or classes that focus on a specific subject. Most of these programs require extra funding which is often allocated to students struggling to learn the curriculum.

Project-based learning involves children learning through real world challenges and problems to gain a deeper understanding.

Ability grouping has been documented to be a successful strategy for gifted students, research has uncovered that students benefit academically, as well as socially and emotionally. Some researchers also found that there was a need for differentiation even within homogeneous classrooms (Adams-Byers, Squiller Whitsell & Moon, 2004; Kitsanis, Bland & Chirinos, 2017). Unfortunately, many of these strategies

recommended by research can only happen after a child has been identified as gifted and most often, students in primary classrooms are not identified. Therefore it is important for teachers to recognize giftedness and use differentiated instruction strategies to support them.

(Talk about my student – K - playing with other children, his games were too advanced and he would often get frustrated and choose to play by himself)

WHAT DOES DIFFERENTIATED INSTRUCTION MEAN TO YOU?



Facilitate discussion on prior knowledge regarding differentiated instruction and methods that are being used by teachers. Point out that most teachers are most likely currently using many different aspect of DI in their classrooms. (5 minutes think time, 5 minutes to share and for presenter to record responses)

CAROL ANN TOMLINSON



- Decorated educator, author and speaker
- Most well known for her work in differentiated instruction
- Worked as a public school teacher for 21 years
- Faculty member at University of Virginia

Bio information from <http://www.ascd.org/professional-development/oscb/faculty/Tomlinson-C.aspx>

DI stems from Gardner's theory of multiple intelligences, however, Carol Ann Tomlinson is the most well known scholar of differentiated instruction.

Tomlinson et al. (2003), agreed that gifted students are under supported in classrooms and also claimed that teachers only make minor modifications in regular homogeneous classrooms, that "gifted students received no differentiation in 84% of the learning activities in which they engaged" (p. 123).

Some researchers even go as far as saying that inclusive classrooms require that teachers understand how to differentiate in their classrooms (Dixon, Yssel, McConnell & Hardin, 2014).

INTRODUCTION TO DIFFERENTIATION WITH CAROL



Retrieved from <https://www.youtube.com/watch?v=01798frimeQ> (4 minutes)

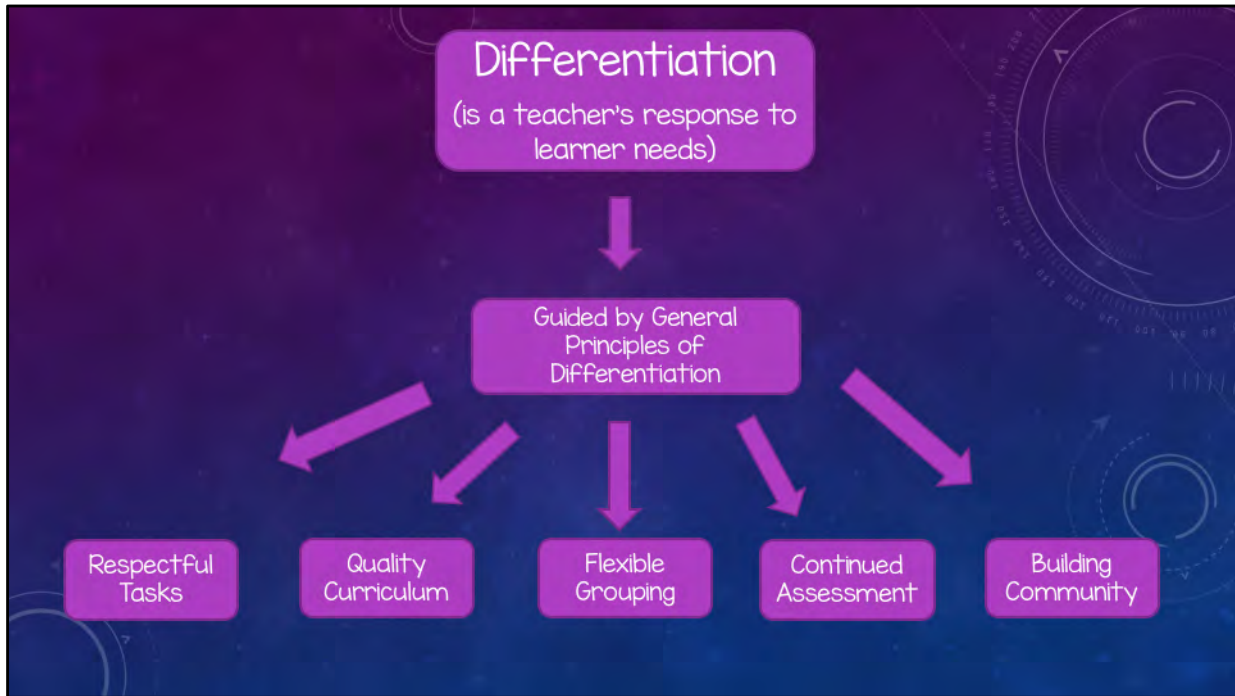
Some of Tomlinson's Differentiated Instruction lectures are on YouTube and I've attached a link at the end of this PPT.

"Everybody has a responsibility to grow and that growth needs to be celebrated" – Carol Ann Tomlinson

Differentiation is a way of teaching; it's not a program or package of worksheets. It asks teachers to know their students well so they can provide each one with experiences and tasks that will improve learning. As Carol Ann Tomlinson has said, differentiation means giving students multiple options for taking in information (1999).

Differentiating instruction means that you observe and understand the differences and similarities among students and use this information to plan instruction. Teacher/Student relationship is one of the most powerful strategies to support learning. Jean Piaget once said "each time one prematurely teaches a child something he could have discovered himself, that child is kept from inventing it and consequently from understanding it completely". Giving

the students more freedom to explore and create their own learning will help them to become life long learners.



This is Tomlinson's hierarchy of differentiation from one of her lectures.

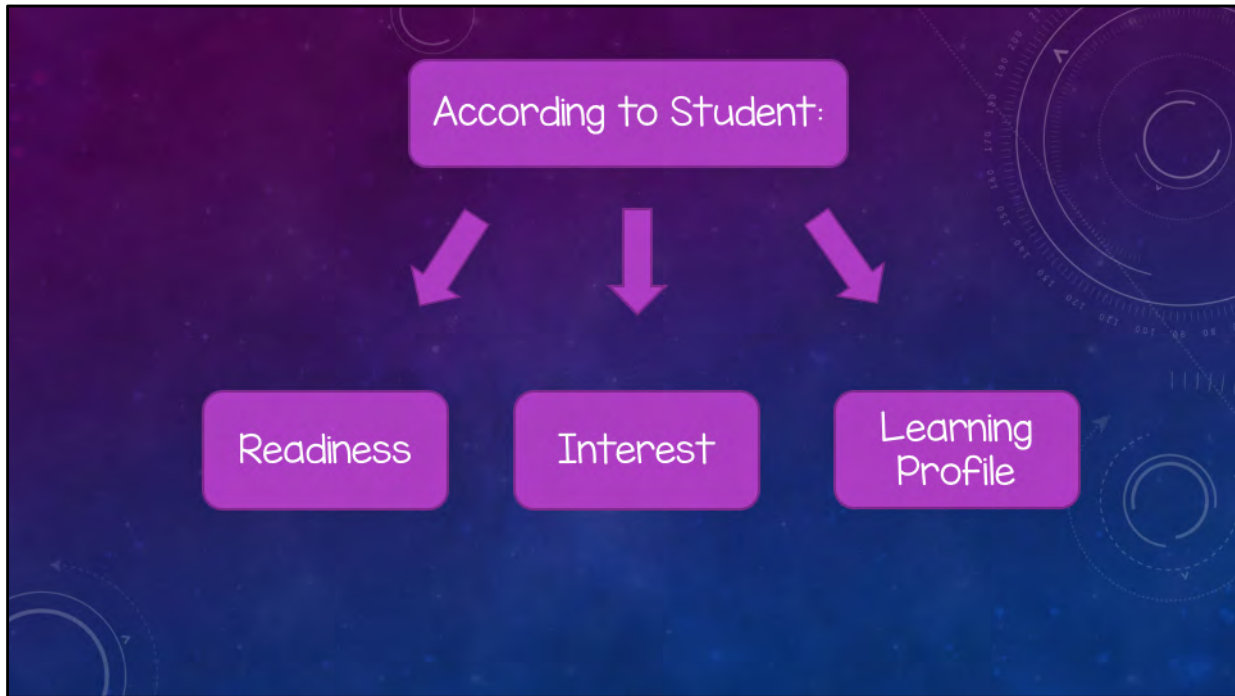
Respectful Tasks: no easy or hard tasks, different versions of one task

Quality Curriculum: not boring

Flexible Grouping: interest, learning style, random...)

Continued Assessment

Building Community: nobody has to lose for me to win (especially important for gifted students who often feel excluded or different)

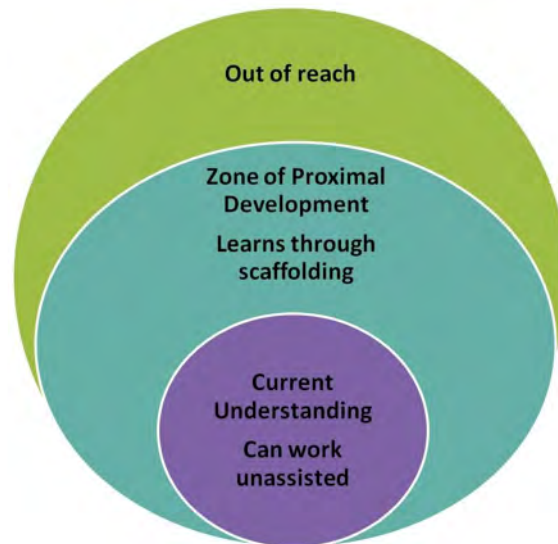


Teachers can differentiate their instruction through content, process, product and affect/environment.

Readiness being language or security, specific student interests and the student's learning profile.

This can be achieved through a variety of activities such as: RAFTS, Graphic organizers, scaffolding reading, cubing, think-tac-toe, learning contracts, tiering, learning/interest centers, independent studies, intelligence preferences, orbitals, complex web quests, web inquiry, etc...

Zone of Proximal Development



Tomlinson et al. (2003) refer to Vygotsky's Zone of Proximal Development when discussing student readiness.

There are some misconceptions that DI focuses too much on play.

Tomlinson et al. go on to state that brain research has shown that students should be taught "within a child's zone of proximal development", material that a child cannot master alone, "but can succeed with scaffolding or support" (p. 126).

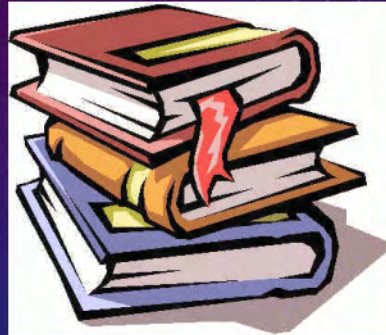
DIFFERENTIATED INSTRUCTION IS NOT



- Individualized instruction
- Chaotic
- Another way to provide homogeneous grouping
- Just “tailoring the same suit of clothes” to fit all students
- Just for “outliers”

There are some misconceptions surrounding DI. Can be work intensive when first implementing, however, the workload decreases over time (Hertberg-Davis, 2009). Collaboration with other teachers can also help to alleviate the workload.

CONTENT



- Different levels
- Different learning styles
- Different interests
- Modelled, shared, and guided instruction
- At the level of student readiness

This could include acceleration (advanced curriculum), telescoping (time students have to complete), compacting (students show what they know and move on to other areas of curriculum), independent study, tiered assignments and learning centers (BC Ministry of Education, 2016).

However, many of these strategies (acceleration, telescoping...) are only used when a student has an IEP and are not solutions for teachers who just want to provide the students with what they need to nurture their learning.

PROCESS

- Take different paths to the same goal
- Have more time in modelled, shared, or guided instruction
- Student teacher conferences
- Use manipulatives
- Vary length of time for completing activities



Students can...

This includes higher level thinking, creative thinking, problem solving, and research skills (BC Ministry of Education, 2016)

ENVIRONMENT

- Allows for flexibility
- Establishes a growth mindset
- Fosters independence and collaboration
- Is fair, equitable and respects diversity of learners



This one is very important for gifted students as they can often feel out of place.

The physical environment could include: centers that involve student interests, different work spaces and a variety of learning materials, whereas the social-emotional environment needs to be “accepting”, “safe” and “supportive” (BC Ministry of Education, 2016, p. 32). They also mention the importance of such an environment for gifted students as they can often feel separate and out of place.

PRODUCT

- Give options and choice
- Tasks are open ended
- Multiple pathways to success
- Student voice is included
- Based on student interest and readiness

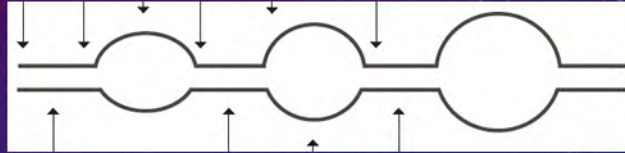


What students make to show what they have learned.

Some examples are: models, diagrams, letters, videos, debates, displays, dramatizations, multimedia presentations, concept maps, stories, sculptures, paintings, songs, scripts, classification systems, advertisements and cookbooks (BC Ministry of Education, 2016).

THE FLOW OF INSTRUCTION IN A DIFFERENTIATED CLASSROOM

1. Pre-assessment
2. Introduction
3. Model
4. Small group exploration
5. Share and ask questions
6. Formative assessment
7. Review ideas (next day)
8. Assign a task
9. Whole-class discussion
10. New ideas or skills
11. Students select groups to explore new content



1. Teacher pre-assesses students on upcoming concepts and skills.
2. Teacher introduces new topic or concept to students.
3. Teacher models some ways to think about skills involved.
4. Students work in small heterogeneous groups on exploratory task.
5. Class comes together to share ideas and pose questions.
6. Students complete quick formative assessment.
7. Class reviews ideas from previous day.
8. Students work on assigned readiness-based task, which reflects assessment data.
9. Students share their ideas or solutions in whole-class discussion.
10. Teacher introduces new ideas or skills followed by discussion and modelling.
11. Students work in self-selected, interest-based groups to try out new content.
12. ****The diagram shows the narrowing of focus and then broad exploratory focus

FLEXIBLE GROUPING

- Preplanned grouping arrangements
- Variety of groups throughout a unit
- Groups match the task to student readiness, interest, or approach to learning
- Heterogeneous and homogeneous groupings



Ensures that students are part of many different working groups throughout a unit but also have opportunities to work alone. The teacher forms groups based on the match of the task to student readiness, interest or approach to learning. Groups of children are alike and others are diverse. Sometimes the students select the groups, sometimes the teacher, and sometimes groups are random.

FLEXIBLE GROUPING



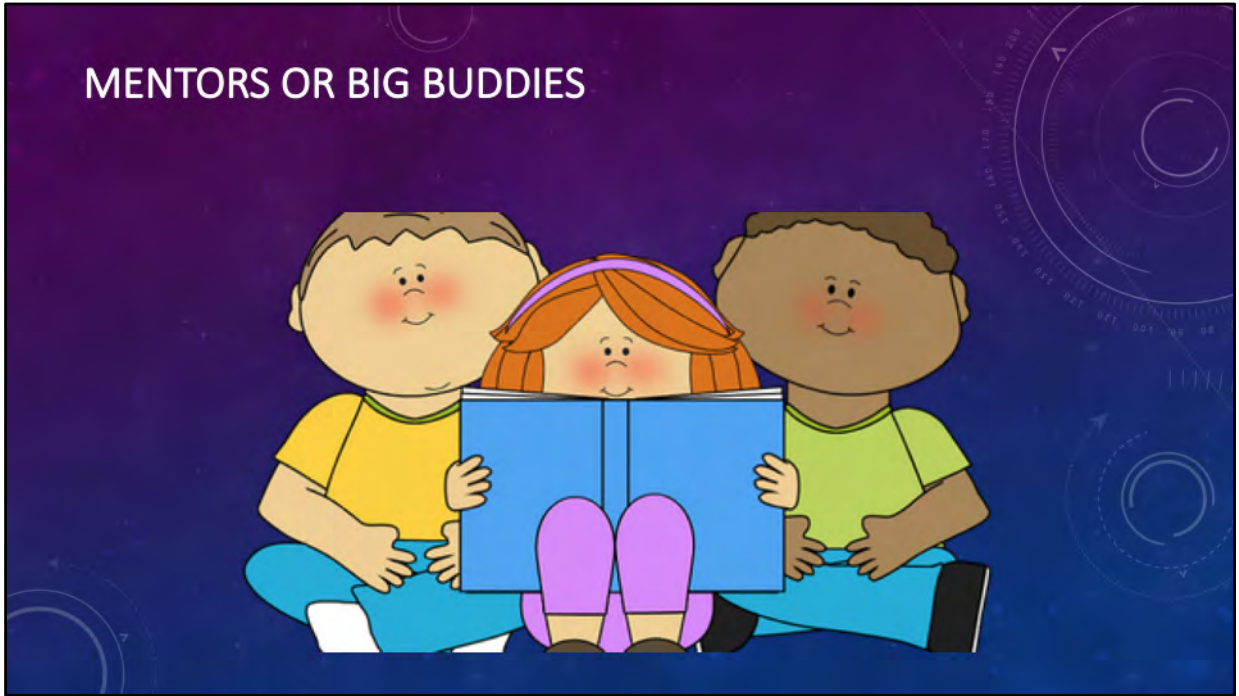
Guidelines

- Students must have the opportunity to work with similar and dissimilar students
- Ensure that students learn how to work collaboratively, cooperatively and independently
- Clear instructions for group functioning
- Use some 'standing' groups that are pre-assigned for some days or weeks

Instructions for group functioning must be taught in advance and reinforced.

Benefits include: sense of community, allows collaborative and independent work, allows attention to readiness needs, interests and approaches to learning; student and teacher have a voice, students work with a wide variety of peers, teachers can 'try out' students in different work settings and tasks, keeps students from being 'pegged' as a particular kind of learner. Research shows that it is very beneficial for gifted students to work and engage with like-minded peers, peers of similar abilities. Inclusion suggests all students receive their instruction in the classroom. Inclusion fails if you focus on the model. Inclusion means giving students what they need.

MENTORS OR BIG BUDDIES



“Using adults or peers with prior knowledge to serve as mentors in an area of shared interest” can be beneficial for gifted students. Research shows that both group and one-to-one mentoring can be beneficial for young gifted students (Stoger, Hopp & Albert, 2014)

INTEREST CENTERS



- Can provide extension or enrichment of the curriculum
- Encourage students to think deeply about a topic
- Can provide opportunity for students to work with topics of special interest
- Can form 'expert groups'

Teachers can provide a variety of resource materials, activities, questions etc. Can provide opportunity for students to work with topics of special interest beyond the scope of the curriculum. Centers can be differentiated by level of complexity, independence required, and student interest. This makes them accessible and challenging for all learners. This is beneficial for gifted students as they can often feel left out. It can help connect them to peers with similar interests.

INTEREST CENTERS



Guidelines:

- Create expectations and criteria
- Build on student interests
- Build interesting extensions of the curriculum
- Encourage students to help develop interest-based tasks
- Adjust for student readiness and language
- Encourage students of similar interests to work together

Allows for student choice, exploration of interests, satisfies curiosity, study in greater depth, can be modified, can be useful for anchor activities. Teachers can fine-tune routines over time.

STORY WORKSHOP



Incorporating a gifted child's specific interests into a story workshop bin can encourage them to include their specific interests in writing and story telling. They can record or present their story in a variety of ways (painting, drama, writing, retelling). Open ended activities are beneficial for gifted students because it allows them to extend their own learning independently. Interest based activities are beneficial for gifted learners, activities associated with their specific talents will allow them to flourish. Gifted children need "challenging learning experiences that progress in difficulty in their specific areas of interest" (Rogers, 2007; Prodigy Education, 2017). This activity could also help connect gifted students to other students in the classroom with similar interests, as gifted students can often feel alienated in the classroom.

COMPACTING



- Assess what a student knows about upcoming content and what they need to master
- Teaching what the student doesn't know and excuse student from classwork in areas of mastery
- Freed-up time is spent on alternative assignments that may or may not be directly related to the content the class is currently studying

Compacting helps to build on advanced knowledge, eliminates boredom from unnecessary practice, better use of student time once the student has demonstrated mastery of required content, and encourages independence.

COMPACTING



You must:

- Explain the process to student and parents
- Pre-assess learner's knowledge
- A student "buys out of" work they have mastered to focus on more challenging work
- Use written plans and timelines for alternative learning
- Clear expectations
- Plan teacher interaction

Clear expectations (how the student can get help if the teacher is busy).

Group compacting is also an option for several students when appropriate. (I've often opened this up to any students that would like to try a challenge).

This is beneficial for gifted students as it allows them to bypass topics that they have already mastered and pursue their own interests and grow their talents or ignite their spark.

PRESENTATIONS FOR CLASSMATES



If children have mastered a classroom topic and independent project or presentation could be an avenue for them to explore their specific area of interest. Gifted children need to be challenged in their area of interest (Rogers, 2007; Prodigy Education, 2017).

This can be adapted in many ways. As young gifted students may not be able to research independently this could be completed with a big buddy or mentor that is interested in the same topic or with a teacher during interest groups (when the teacher is freed up to connect with students individually). They can share their knowledge with their classmates through presentations (could include drawings, models, paintings, etc.).

TIERING



- Create one version of a task
- Develop additional versions of the task at different degrees of challenge
- Task focuses on critical knowledge, understandings and skills
- Plan for advanced students first and then provide varied levels of scaffolding

Almost any activity can be tiered: learning contracts, sense-making activities, products, rubrics, writing prompts, assessment.

The task focuses on critical knowledge, understandings, and skills. It is important to begin planning for advanced students first and then tier by providing varied levels of scaffolding to enable all students access to high-quality learning experiences.

Allows students to work with appropriately challenging tasks, avoids work that is too easy or too hard and encourages “teaching up”.

Teaching up—“a practice of first planning a lesson that's challenging for high-end learners and then differentiating for other learners by providing supports that enable them to access that more sophisticated learning opportunity.” (Carol Ann Tomlinson) It replaces “the more common practice of planning for mid-range performers, then extending that lesson for advanced students and watering it down for others.” This approach, Tomlinson says, challenges advanced learners more than trying to pump up a “middling” idea—and serves other students better as well.

TIERING



Guidelines:

- Each task must be focused on the same knowledge, understanding and skills
- Use a variety of resources at different levels of complexity
- Not making one 'easy' task and one 'hard' task
- Criteria for quality and success
- Students must know they are all working toward the same goals
- Follow up with whole-class discussions

Task can be adjusted by: complexity, number of steps, concreteness, and independence. Teachers need to find a level of task complexity that all students will be able to complete with a balance of success and effort. Students are working towards the same goals even if their work varies.

This is beneficial for gifted students because their challenges are not just an after thought, or adaptation. You must purposefully plan in order for them to reach their highest potential. When planning Tiered lessons, you plan for the advanced students first.

*Refer back to lists made at the beginning of the presentation to see how perceptions have changed

ASSESSMENT IN A DIFFERENTIATED CLASSROOM



- Teachers should do less grading of student work
- Grading should be based on clearly articulated learning goals
- Grades should be criterion based not norm based
- Grades should not be clouded by “grade fog”
- When it is time for report cards use 3-P grading

Some work is meant to be a rough draft. What is the point of marking it all up? Children need to learn safely and without judgement. Can be looked back on as “look how far you’ve come.”

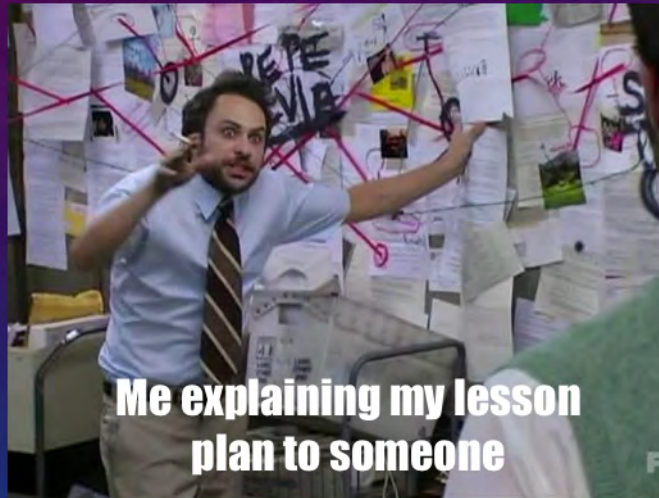
Grading should be based on clearly articulated learning goals that are known to students (WALT – We Are Learning Today) and aligned with instruction and with assessments.

We should report on students relative to competencies, goals or standards not in relation to one another.

“Grade fog” being, for example, a student was deducted points because they forgot to put their name on the paper.

3-P Grading being performance (status on specified goals/standards/objectives), process (habits of mind and work) and progress (growth on the specified goals).

EXAMPLE LESSON PLANS



Here are some example DI lesson plans for gifted learners.

ENGLISH LESSON EXAMPLE (GRADE 1)

Topic: Creative Writing

Learning Objectives: Recognize the structure and elements of a story, plan and create a variety of communication forms for different purposes and audiences

Pre-Assessment: Read a familiar story, have the children draw pictures and write a sentence about their pictures to depict the beginning, middle and end of a story

Grouping Choices: collaborate with another grade 1 class to create ability-based groups and children can find a partner within their group (possibly with similar interests) to write a story with

Learning Experiences	Instructional Resources	Process	Environment	Product
Exceeding	Instructions on board, copy of story	Template available if necessary	Tables to write and draw	Write the story out
Meeting	Instructions on board, word bank, copy of story	Template available if necessary	Space to move and act out the story	Draw the story and write some sentences
Approaching	Instructions on board, word bank, copy of story, teacher support	Template for drawing the parts of the story	Story Workshop box to help create the story	Draw, act out, retell the story using toys

Post Assessment: Students present their story to the class or to the teacher

The objective of this lesson is for students to re-write the story *The Three Little Pigs*. We would begin with writing a variation all together there would be varying questions (Example: (MA/LA)Who could be the main character? (HA)How can we change the problem?). They can change the characters, events, and setting. Content: children can choose the characters they would like to use (involves their interests). Students can find someone or another pair within their ability group to share their story with in order to give and receive feedback. Higher ability children would be expected to write out the story, they could also draw pictures. Middle ability children would be expected to draw out the beginning, middle and end as well as including some sentences. Lower ability children would be expected to draw out the story or use Story Workshop Materials to create and retell their story. This lesson draws from the Big Ideas: Language and story can be a source of creativity and joy, stories and other texts can be shared through pictures and words and everyone has a unique story to share. This lesson uses flexible grouping and an open ended activity to support gifted learners. Of course all supports will be available for all children if they would like to use them.

MATH LESSON EXAMPLE (GRADE 1)

Concept: Addition and subtraction with numbers to 10 can be modelled concretely, pictorially, and symbolically to develop computational fluency.

Students will:	Know (Standards, Content)	Understand (Principles, Generalizations)	Do (Objectives, Outcomes)
1.	Counting on, making 20+, doubles (mentally)	Addition and subtraction are related	Use multiple strategies independently to show work
2.	Counting on, making 10, doubles with some support	Decompose numbers to 20 into parts	Use some strategies to show work
3.	Counting on, making 10, doubles with support	Ways to make 10	Use 1 or 2 strategies to show understanding

Essential Questions: What is the relationship between addition and subtraction? How many different ways can you solve...? How does knowing $4+6=10$ help you to know other ways to make 10?

Pre-Assessment: Record abilities during carpet lesson.

Number of Students: Level 1 (3), Level 2 (12), Level 3 (5)

Assessment: Interviewing Students

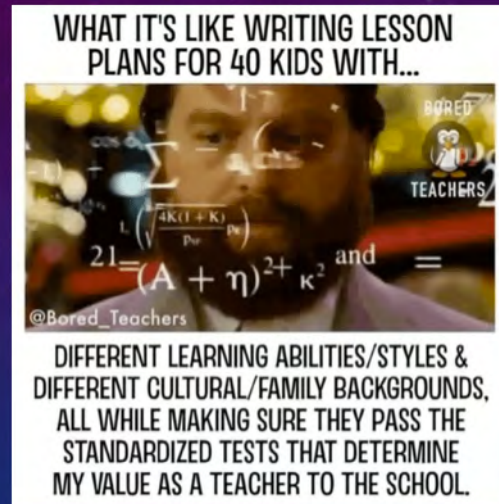
Re-Teaching Concepts: Small group interventions as needed

This lesson plan uses Interest Centers in order to teach the Big Idea: Addition and subtraction with numbers to 10 can be modelled concretely, pictorially, and symbolically to develop computational fluency. Pre-Assessment includes children using whiteboards in a circle on the carpet. The teacher will ask addition and subtraction questions varying in difficulty and record the abilities of the students on a Class Grid assessment sheet.

Interest Stations include: task cards of varying levels, math books about addition and subtraction at varying levels, iPad games, addition and subtraction math game with a partner, and challenge center (where children can work with higher numbers).

Children will be asked to work at as many stations as they like but they must work at a minimum of 2 different stations. Level 1 students will be completing concepts independently in their head, Level 2 students will be completing activities with some supports such as number lines, or manipulatives. This is beneficial for gifted students as the activities can be planned to challenge them (and with supports other students can also be successful), the groups are flexible and they have choice, the challenge activity could also be geared towards their specific interest (double digit adding or subtracting with Pokémon for example).

CREATE A DIFFERENTIATED LESSON PLAN



I want everyone to leave here with something concrete to try in their classrooms so everyone will create a differentiated lesson plan for their specific classroom. You can adapt the lesson plan templates as you see fit.

Have the participants get into groups of grades that they teach. Handout lesson plan templates and curriculum guide print outs to each group and have them decide whether they would like to plan a math or literacy lesson for their class. After they have chosen, have them work in groups of 3-5. They also have the option to work by themselves. Distribute print outs of the BC curriculum guide (both Math and Literacy sections). Allow 15-20 minutes for teachers to plan and discuss. Circulate and offer support to participants.

DIFFERENTIATED INSTRUCTION LESSON PLAN TEMPLATE

Teacher:	Class:	Period:	Date:
Unit Title:		Objectives:	
Lesson Title:		Materials Needed:	
Learning Target(s):		Standards:	
Vocabulary:			
Bell Ringer:			
LEARNING ACTIVITIES			
	Struggling	Proficient	Advanced
Activity #1 Goal(s):			
Mini-Lesson			
Activity			
Check for Understanding			
Activity #2 Goal(s):			
Mini-Lesson			
Activity			
Check for Understanding			
Activity #3 Goal(s):			
Mini-Lesson			
Activity			
Check for Understanding			
Exit Slip:			

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Lesson plan template 1: This template allows you to plan for mini lessons or a variety of activities and you can differentiate for some variation in abilities. This may be a good template for planning interest centers or tiered lessons. It also plans for assessment for each activity. This template allows for planning differentiation in process.

Teacher Name: _____ Class/Subject: _____

Differentiated Lesson Plan

1. Standard/Concept/Unit/Topic/Subject: _____

2. As a result of this less/unit, students will Know (facts, vocabulary), Understand (concepts), and/or Be able to DO (skills): _____

3. Pre-assessment: _____

4. Grouping Decisions and Choices: _____

5. Learning Experiences	Instructional Resources	Content	Process	Product
Exceeds Standard				
At Standard				
Approaching Standard				

6. Post-assessment: _____

7. Notes/Reflection for future reference: _____

Lesson plan template 2: This template plans for flexible grouping. It also allows for differentiation in resources, content, process and product. This would be a good template for math, science or social studies concepts.

Differentiated Lesson Plan Template

Grade Level _____ Developed by _____

Subject _____ Concept _____

Planning: What Students will:		
KNOW Standards, content	UNDERSTAND Principles, Generalizations	DO Objectives, Outcomes
1	1	1
2	2	2
3	3	3
4	4	4

Essential Questions:	Pre-Assessment:	Assessment:	
			Number of Students
		Level one	
		Level two	
		Level Three	
		Level Four	
		Re-teaching Concepts:	

Lesson plan template 3: This template uses essential questions to inform planning. This works well with the 'Big Ideas' in the BC curriculum. It also asks you to pre-assess and divide students into four different ability groups. It also asks for 're-teaching' concepts (for struggling students). This area could also be used for challenging higher ability students. This would be a good template for planning a unit.

Share Your Lesson Plan With Another Group or Individual



Share the lesson plan that you made with another group or person. Give feedback and adjust as you see fit. (Allow 10 minutes, 5 minutes for each participant to share their lesson plan). Encourage participants to share copies of the plans they have made with other teachers. Come back as a group and ask if anyone would like to share their lesson plan with everyone?

Finally, refer back to the lists that the participants had made in the first part of the workshop. What could we now add to those lists? Is there anything we should remove from them or change? (Allow 5 minutes for suggestions).

FOR MORE INFORMATION ABOUT GIFTEDNESS

- <https://www.nagc.org/>
- <https://giftedchildrenbc.org/new-to-gifted/>
- <https://lowermainlandgiftedcontacts.weebly.com/organizations.html>
- <http://www.teachspeced.ca/giftedness>
- https://www.prufrcock.com/?gclid=Cj0KCQjwjZv0BRDOARTsAGh37ips6Mgab7aciKaZqjnKLSDdCP7s-f9oNI-HPOGcuuf66lJXdYJjx_lcaAiXgFALw_wcB

Here are some useful resources if you are interested in giftedness or if you need some resources to support parents.

RESOURCES FOR DIFFERENTIATED INSTRUCTION

- Carol Ann Tomlinson Lecture videos on YouTube (QEP VideoCoursesForTeachers YouTube) <https://www.youtube.com/watch?v=r5PP2plm87A>
- Informative Video (Madly Learning YouTube) <https://www.youtube.com/watch?v=PcUHGgCQPQ0>
- <https://udlresource.ca/2017/12/differentiated-instruction/>
- <https://differentiationcentral.com/>
- <https://www.prodigygame.com/blog/differentiated-instruction-strategies-examples-download/>
- https://www.lessonplanet.com/lesson-plans/differentiated-instruction/all?gclid=Cj0KCQjw7v0BRD0ARTsAGh37ipAFSf98rsTbf9XJUw076cJ8TFYtnCvFE4sUvHkC-Z8HgdMGwZniGUaAv_TEALw_wcB

Here are some extra resources to support you in your Differentiated Instruction journey.



Just as with anything new, DI is going to take some work. But through collaboration and sharing resources the workload can be lightened immensely. When you are successful with DI children are engaged, happy and learning to their fullest potential. This includes gifted and talented students. When children are engaged in learning things run more smoothly and there are less “fires” to put out.

Any Questions?

Provide an anonymous feedback slip for teachers to complete and put in a box at the end of the presentation.

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DIFFERENTIATED INSTRUCTION LESSON PLAN TEMPLATE

Teacher:	Class:	Period:	Date:
Unit Title:		Objectives:	
Lesson Title:		Standards:	
Learning Target(s):		Materials Needed:	
Vocabulary:			
Bell Ringer:			
LEARNING ACTIVITIES			
	Struggling	Proficient	Advanced
Activity #1 Goal(s):			
Mini-Lesson			
Activity			
Check for Understanding			
Activity #2 Goal(s):			
Mini-Lesson			
Activity			
Check for Understanding			
Activity #3 Goal(s):			
Mini-Lesson			
Activity			
Check for Understanding			
Exit Slip:			

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Lesson plan template 1

Teacher Name: _____ Class/Subject: _____

Differentiated Lesson Plan

1. Standard/Concept/Unit/Topic/Subject: _____

2. As a result of this less/unit, students will Know (facts, vocabulary), Understand (concepts), and/or Be able to DO (skills): _____

3. Pre-assessment: _____

4. Grouping Decisions and Choices: _____

5. Learning Experiences	Instructional Resources	Content	Process	Product
Exceeds Standard				
At Standard				
Approaching Standard				

6. Post-assessment: _____

7. Notes/Reflection for future reference: _____

Lesson plan template 2

Differentiated Lesson Plan Template

Grade Level _____ Developed by _____

Subject _____ Concept _____

Planning: What Students will:		
KNOW Standards, content	UNDERSTAND Principles, Generalizations	DO Objectives, Outcomes
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.

Essential Questions:	Pre-Assessment:		Number of Students	Assessment:
		Level one		Re-teaching Concepts:
		Level two		
		Level Three		
		Level Four		

Lesson plan template 3

FEEDBACK FORM

What did you find most useful in this presentation?

What could be improved?

Is there anything else you would like to know about Giftedness or Differentiated Instruction?

Do you have any unanswered questions?

Feedback slip.