Introduction

The issue of this *School-based Gifted Education: Learning and Teaching Resource Package* was the fruitful outcome of the professional collaboration between the **Jockey Club "Giftedness into Flourishing Talents" Project** (Project GIFT) and 20 local Project Schools (15 primary and 5 secondary schools) in 2017/2018 and 2018/2019. The Project was launched by the Centre for University & School Partnership, Faculty of Education, The Chinese University of Hong Kong (CUHK) with funding from the Hong Kong Jockey Club Charities Trust to promote school-based talent development and gifted education in Hong Kong. It was a cross-institutional effort by research investigators from CUHK, the Hong Kong Polytechnic University, the City University of Hong Kong, and the Education University of Hong Kong.

To enhance readers' knowledge of gifted education implementation and school-based professional collaboration with Project Schools, this chapter serves four main purposes. First of all, the primary focus will be on the contemporary perspectives on giftedness. To this end, the conception and theoretical models of giftedness will be examined. Then, to nurture children with giftedness and talents, gifted education strategies will be elaborated. Following this, the development of gifted education in Hong Kong, together with a three-tier implementation model and the core elements of gifted education will be discussed. After that, the background of professional collaboration, the purposes and major components of this *School-based Gifted Education: Learning and Teaching Resource Package* will be introduced.

With this resource package, we aim at providing local primary and secondary schools with an effective platform for dissemination and sharing of learning and teaching resources. Most importantly, we look forward to providing educators, teachers, curriculum leaders, and school administrators who are interested in gifted education with a rich source of good practices of school-based enriched curriculum and talent development (L1) as well as pull-out programmes for high ability and gifted students (L2).

Contemporary Perspectives on Giftedness

What is giftedness?

Giftedness has long been defined by intellectual intelligence or the psychometric IQ score. It was no surprise then that western IQ tests were considered as indicators to identify giftedness (Chan, 2018). Nevertheless, over the years, the conception of giftedness and intelligence has undergone remarkable changes. IQ score is no longer regarded as "an adequate measure of giftedness" (Chan, 2018, p.73). Rather, a broad definition of giftedness using multiple criteria is adopted.

Based on the U.S. Marland's Report (1972), which supported a multi-faceted or multi-dimensional

nature of giftedness, the Education Commission Report (1990) identified the definition of giftedness and addressed the educational needs of gifted children in Hong Kong. Accordingly, gifted children are those who show exceptional achievement or potential in one or more of the following.

(a) A high level of measured intelligence;

(b) Specific academic aptitude in a subject area;

(c) Creative thinking showing high ability to invent novel, elaborate and numerous ideas;

(d) Superior talent in visual and performing arts such as painting, drama, dance, music, etc;

(e) Natural leadership of peers showing high ability to move others to achieve common goals; and

(f) Psychomotor ability demonstrating outstanding performance or ingenuity in athletics, mechanical skills or other areas requiring gross or fine motor coordination (Education Commission, 1990, p.47).

Theoretical Models of Giftedness

Two main theoretical models are relevant and consistent with the Asian cultural conception of giftedness. The first one is Renzulli's (1978) Three-Ring Model (Figure 1). The second one is Gardner's (1983) Theory of Multiple Intelligences (MI) (Figure 2). They will be examined as follows.

The Three Ring Conception of Giftedness holds that gifted behavior is an outcome of the interaction of three basic clusters of human traits, namely, above average general and /or specific abilities, high levels of task commitment (motivation), and high levels of creativity.

One of the major components is well-above average ability. On the one hand, general ability consists of traits that can be applied across all

Figure 1. Three ring conception of giftedness (Adapted from Renzulli, 1978, p.83)

or broad domains. It is the "capacity to process information, to integrate experiences that result in appropriate and adaptive responses to new situations, and the capacity to engage in abstract thinking" (Renzulli, 2010, p.259). Therefore, verbal and numerical reasoning spatial relations, memory as well as word fluency are examples of this general abilities. On the other hand, specific abilities range from "the capacity to acquire knowledge, skill, to the ability to perform in one or more activities of a specialized kind and within a restricted range" (Renzulli, 2010, p.260).
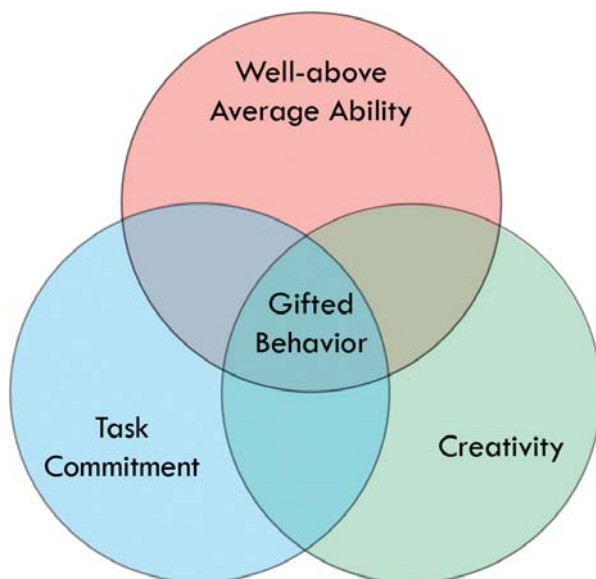
Task Commitment is the second feature. It represents energy brought to bear on a particular problem or specific performance area. Task commitment has been found to be strongly associated with one's perseverance, endurance, hard work, dedicated practice, self-confidence, belief in carrying out important work, and action applied to his/her area of interest. In general, task engagement can be either intrinsically or extrinsically motivated (Renzulli, 2010).

Creativity is the third of the cluster of traits that characterize one's giftedness. Its vital role in the cognitive process has been supported in the revised Taxonomy of Anderson et al. (2001). In their model, six levels of cognitive domains are stipulated, namely Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating. Among them, creativity belongs to the highest level of the cognitive hierarchy.

In brief, gifted children possessing the above-mentioned traits are "capable of developing and applying themselves to any potentially valuable area of human performance" (Chan, 2018, p.74). It is interesting to note that the focus on one's ability 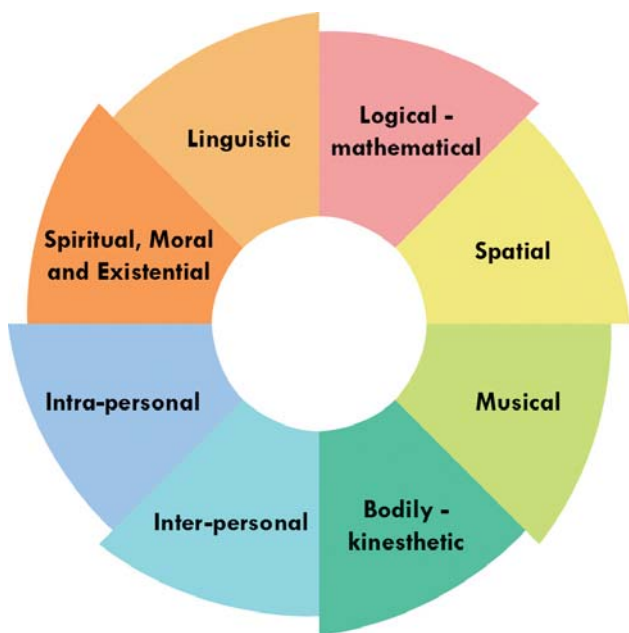and task commitment shares the same mindset of "effort and hard work" with Confucian ideology. According to Confucian teaching, one's ability is highly regarded especially in Chinese communities. As regards creativity, however, it is commonly agreed that the collectivist values of Confucianism such as conformity and obedience are not conductive to the nurturing of creativity. As such, to cultivate giftedness in children, researchers find that the promotion of creativity is always a top priority in many Asian countries, notably China, Hong Kong, Singapore and South Korea (Chan, 2018; Hui & Lau, 2010).

Figure 2. The theory of multiple intelligences

While most studies correlate giftedness with intelligence, some theorists have developed new models of intelligence. To Gardner (1983), intelligence is not a unitary concept. Rather, there are various dimensions of intelligences. In his initial model, Gardner formulated the seven dimensions of intelligences, namely linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, inter-personal, and intra-personal. Later, he added an eighth one named spiritual, moral and existential intelligence (Gardner, 1999). This new conception has marked a great difference from the traditional notion of giftedness, which pays great attention to intellectual intelligence.

In sum, the MI theory matches well with the Confucian educational ideal of promoting students' balanced development in the ethnical (de), intellectual (zhi), physical (ti), social (qun) and aesthetic

(mei) domains (Chan, 2008). Similarly, Sternberg and Reis (2004) hold that giftedness involves more than just IQ. Instead, it has both non-cognitive and cognitive components. Sternberg and O'Hara (1999) suggested that intelligence is simply one of the six forces that generate creative thought and behavior. It is the confluence of intelligence, knowledge, thinking styles, personality, motivation, and the environment that forms gifted behavior as viewed from a creative-productive perspective. In addition, Renzulli (2010) also supported an expanded conception of giftedness. Instead of adopting a purely academic definition, he reiterated the value of "multiple talent" and "multiple criteria" in understanding the characteristics of high potential and gifted students.

Approaches to Differentiated Education

Gifted and talented children demonstrate distinct learning styles that call for a diversity of educational offerings. Gifted learners generally demand rich "learning experiences which are organized by key concepts and principles of a discipline rather than by facts" (Tomlinson, 2019, p.1). Compared with their non-gifted counterparts, gifted children are inclined to master advanced material in a complex and abstract manner earlier and more consistently than their peers (Brody & Benbow, 1987; Little, 2018).

Given the unique characteristics and needs of gifted learners, the adoption of differentiated instruction is in alignment with the Confucian value of "yin-cai-shi-jiao" (teaching according to one's abilities). As such, differentiation allows instructors to teach in accordance with each one's abilities and needs.

Differentiation

Differentiation is "the process of making educational expectations match individual students' different learning needs" (Matthews & Foster, 2009, p.112). This strategy is proved to be effective in serving gifted learners especially in heterogeneous classrooms. At the curriculum level, adaptations can be made by removing unnecessary or repetitive chunks of content, reorganizing or intensifying content, and connecting a unit of study to other subject areas or disciplines. At the classroom level, teachers may adopt flexible grouping based on students' strengths, interests and weaknesses, and extend the breadth and depth of learning experiences (Wan, 2016).

Differentiated provisions are typically essential to the gifted or talented individuals who exhibit differential abilities and multi-level talents. Their educational needs can be appropriately satisfied with accelerated, compacted and advanced learning content, and enriched learning experiences, which help develop convergent and imaginative abilities, and pursue higher goals and independence (Feldhusen, 1982; Griggs & Dunn, 1984; Tomlinson, 1994; VanTassel-Baska & Stambaugh, 2005). In the discussion below, differentiated curriculum, instruction as well as assessment will be examined.

Differentiated Curriculum

To start with, in the regular curriculum, the Schoolwide Enrichment Model (SEM, Renzulli, 2003; Renzulli & Reis, 1994, 1997; Renzulli & Renzulli, 2010) (Figure 3) proposes differentiation of

textbook contents, processes and products to accommodate the diverse needs of individual learners. In particular, teachers should adopt curriculum modification techniques that can (a) adjust levels of required learning so that all students are challenged, (b) eliminate boredom and increase challenge and engagement for all learners, and (c) introduce various types of enrichment into regular curricular experiences (Renzulli & Reis, 2014, p.48). Other researchers also recommend using the unique characteristics of the students as criteria for decisions on how the curriculum should be adapted and differentiated (Feldhusen, Hansen, & Kennedy, 1989; Maker & Nielson, 1996).
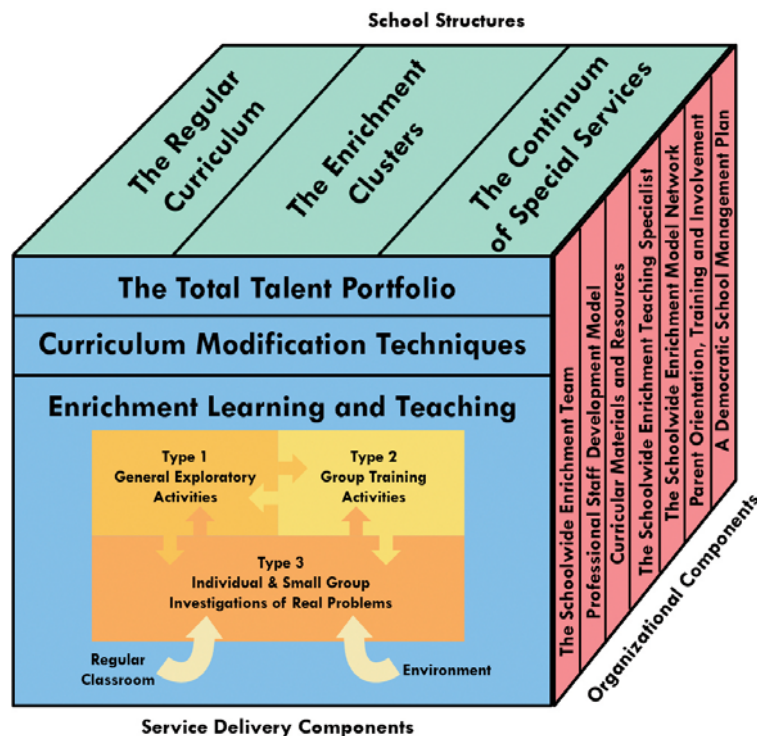

Figure 3. The schoolwide enrichment model (Adapted from Renzulli, 2003, p.6)

It is believed that effective teaching of gifted students happens at a higher degree of difficulty, independence and competency than for most students their age. Gifted learners are more likely to engage with a different level of challenge during instruction as compared with their average peers. In VanTassel-Baska's (1986) view, advanced content is essential to provide gifted children with advanced stimuli so that they have extended opportunities to experience new learning and challenges. Therefore, to challenge the gifted and talented, teachers are recommended to adopt learning content, process and products that are more complex, more abstract, more open-ended, more multi-faceted than would be appropriate for many peers (Tomlinson, 2019).

Beyond the capacity for more advanced learning content, gifted children showed strong preference for more challenging learning experiences. At the classroom level, challenge may be defined by pace, depth and opportunities to engage with higher-order thinking and to pursue greater depths of difficulty around their own interests (Kanevsky & Keighley, 2003; Little, 2018).

The following will discuss key instructional practices and teaching strategies for promoting effective learning by addressing the intellectual characteristics and learning needs of learners with giftedness.

Curriculum Compacting

One of the most widely used SEM differentiation strategies is curriculum compacting. It plays an essential part in incorporating content, process, products, classroom management, and teachers'

commitment to accommodate individual and small-group differences. Most importantly, it improves instruction by streamlining and provides more challenging learning opportunities for high-potential and talented learners. What is more, when formative assessments demonstrate that gifted learners have already mastered the teaching content and skills, instruction can skip over some content and move on to other advanced material. As a result, compacting curriculum facilitates the implementation of other instruction strategies in the classroom for gifted learners (Reis & Purcell, 1993; Rogers, 2007).

Differentiated Instruction

Another unique feature of the SEM is differentiated instruction. It suggests the incorporation of a variety of within-classroom strategies in classrooms. Differentiation is an attempt to address the variation of learners in the classroom to match the individual needs of students (Tomlinson, 2000). In her view, "good teaching for gifted learners is paced in response to the student's individual needs" (Tomlinson, 2019, p.1). Gifted and high ability children learn faster. On the one hand, they desire a more compact curriculum with accelerated instructional pace than their peers. On the other hand, they expect a faster learning pace that allows them to achieve a depth or breath of understanding, and to satisfy a bigger appetite for learning.

VanTassel-Baska's (1986) Integrated Curriculum Model (ICM) (Figure 4) has laid down a framework to address the curricular needs of gifted learners. In the model, six main differentiation features are identified, namely abstractness, depth, complexity, creativity, acceleration, and challenge (VanTassel-Baska, 2003).

Acceleration and challenge are included to serve the target of advanced content. Using acceleration, "teachers pre-assess students to determine their readiness relative to certain skills, and may compact or compress new material at more advanced levels". As an effective strategy, acceleration "encompasses a wide variety of approaches to intervention to gifted learners" (Little, 2018, p.374). Accelerated pace and content are made feasible by moving students into different grade levels, introducing advanced content earlier, as well as moving students faster through content (Assouline, Colangelo, & VanTassel-Baska, 2015).

Figure 4. Integrated curriculum model

Challenge involves using sophisticated content stimuli and advanced resources for student exploration (VanTassel-Baska & Chandler, 2013). Depth, complexity and creativity are the key features of the Process-Product Dimension. These
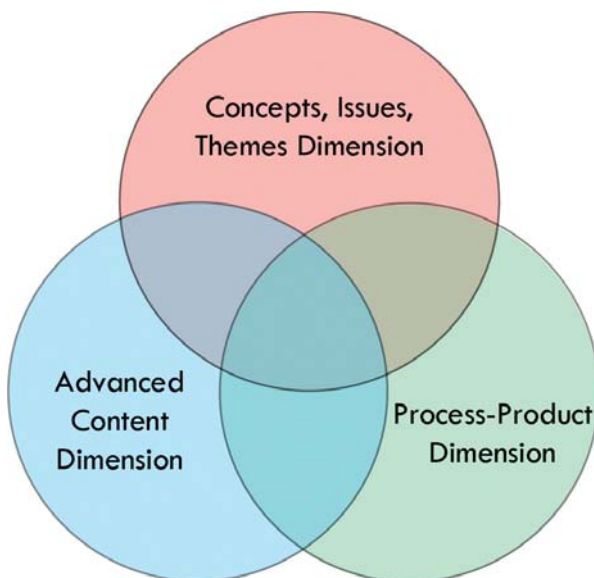
strategies help to address gifted students' characteristic of intensity, in terms of their ability to sustain focus of interest. Investigation in Depth demands one's original research and in-depth exploration from multiple perspectives. Similarly, complexity requires one's multiple higher order thinking skills and multiple variables to study a topic. Creativity addresses the intensity of the gifted learners through creative production for advanced learning.

One additional differentiation feature is abstractness. It is closely associated with the concepts/ issues/themes dimension of the ICM. By adopting abstractness in the curriculum, gifted learners are motivated to move from concrete examples to conceptual thinking skills and form generalizations independently.

In sum, the ICM provides a blueprint for structuring curriculum and planning instructional strategies for the learning and teaching of gifted students in a local context. It is particularly applicable in the Level 1 Gifted Education programmes (Three-Tier Model) which promote in-class differentiation in regular classrooms at local schools.

Grouping

Past research has revealed the usefulness of grouping strategy in supporting gifted students. In particular, flexible grouping in regular classrooms supported the achievement and valued outcomes of gifted students (Rogers, 2007, Tomlinson, 2005). It is an instructional strategy where students are grouped together to receive appropriate challenging instructions based on diverse academic abilities, learning styles and interests. As Tomlinson (2005) commented, flexible grouping fosters students to taste variant learning experiences based on learners' characteristics, intellectual potential and learning styles.

In summary, the SEM, being one of the most widely used and evidence-based curriculum models in gifted education, provides inspirations for educators to look at each student's strengths, interests, learning styles, and preferred modes of expression and to capitalize on these assets when developing challenging learning opportunities for superior learners and highly motivated students (Renzulli & Reis, 2014). It aims to maximize talents of all students by adopting a whole school approach to develop the learning potential of all students with a conviction that "a rising tide brings up all ships" (Renzulli & Reis, 2014).

In this view, to stretch the potentials and to address the learning needs of the gifted learners, schools should provide them with a wide variety of educational opportunities, resources, and encouragement above and beyond those ordinarily provided through regular instructional programmes.

Differentiated Assessment

It is worth noticing that curriculum, when differentiated, should be supplemented with diagnostic assessment, as proposed by the ICM. In addition to curriculum modifications based on the needs of gifted children, ongoing formative assessment ensures students are enhancing needed

competencies (VanTassel-Baska, 2018). Generally speaking, two models of assessment, namely performance-based assessments and portfolios, are recommended.

First, performance-based assessment requires students to demonstrate the qualities of higher level thinking, problem solving, creativity, as well as articulation in a task demand. Second, evaluation by portfolio asks students to select and present their best work. Most importantly, it is common practice that portfolios are showcased to parents and community. Further, this assessment tool allows gifted students to experience deeper insights into the learning process (VanTassel-Baska, 2008).

Gifted Education in Hong Kong

The Three-tiered Implementation Model

In the Hong Kong context, the Education Commission Report No. 4 (1990) stated that the vision of education is to cater for the learning needs of all students. The main targets of gifted education are to nurture and expand different potentials and to develop in every student his/her outstanding abilities through the provision of quality education. Therefore, all local schools should be committed to providing appropriate learning opportunities for talented and gifted students. School-based gifted education programmes and provisions are considered to be the most favorable approach to benefit gifted learners (Education Bureau, 2019).
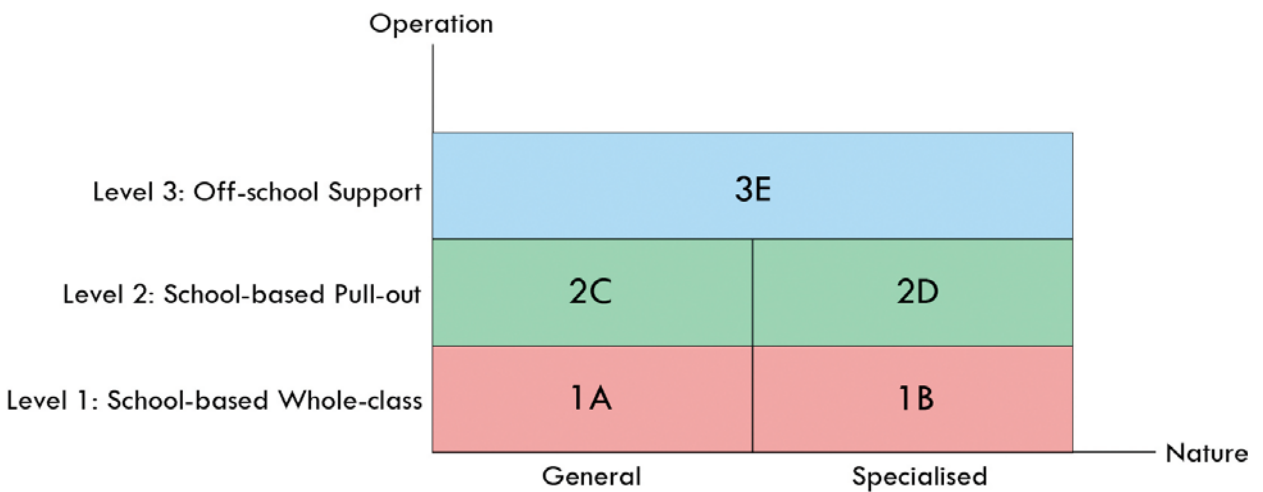

Figure 5. The three-tiered implementation model (Adapted from Education Department, 2000, p.6)

To meet the unique characteristics and learning needs of gifted students, the Three-tiered Model (Figure 5) has been adopted for the promotion of gifted education since 2000. More specifically, Level 1 refers to school-based whole-class teaching. It requires pedagogies to tap the potential of students in creativity, critical thinking, problem solving or leadership in regular classrooms. This target can be fulfilled by integrating the three core elements of gifted education (higher-order thinking, creativity and personal-social competence) into the enrichment curriculum of regular classrooms for all students (1A). In addition, the specific needs of those students with outstanding

performance in individual academic subjects are catered for by enriching and extending the curriculum across all subjects, and differentiating teaching through appropriate grouping of students (Education Bureau, 2019).

Level 2 refers to school-based pull-out programmes in disciplinary or interdisciplinary areas for students with higher ability within the school setting. At this stage, pull-out differentiated curriculum and programmes are designed for students with specific talents or outstanding academic results (2C) and for students demonstrating outstanding performance in specific domains (2D) (Education Bureau, 2019).

At Level 3, off-school support refers to provision of learning opportunities for exceptionally gifted students in the form of specialist training outside the school setting (3E) (Education Bureau, 2019).

The Three Core Elements of Gifted Education

In the 3-tier model, one major feature is to incorporate the three key elements of higher-order thinking skills, creativity and personal-social components into an enriched curriculum at local schools (Education Department, 2000). In essence, the three elements share a close relationship with the nine generic skills as advocated in the Hong Kong curriculum reform. First, creativity, critical thinking, computation skills, problem-solving skills and study skills help to nurture higher-order thinking. Second, communication skills, collaboration skills, self-management skills, positive values and attitudes are closely associated with personal-social competence. In the following, the main characteristics of the three major elements will be examined in both cognitive and affective dimensions.

Cognitive Dimension: Higher-Order Thinking

Higher-order thinking refers to organizing thinking skills. According to Bloom's Taxonomy (1956) (Figure 6), six major categories in the cognitive domain are knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). The categories are ordered from simple to complex and from concrete to abstract. Under this hierarchical framework, the mastery of each simpler category is a prerequisite to mastery of the next more complex one (Krathwohl, 2002).

Anderson et al. (2001) revised the taxonomy of cognition based on Bloom's model. More specifically, the original knowledge, comprehension, application
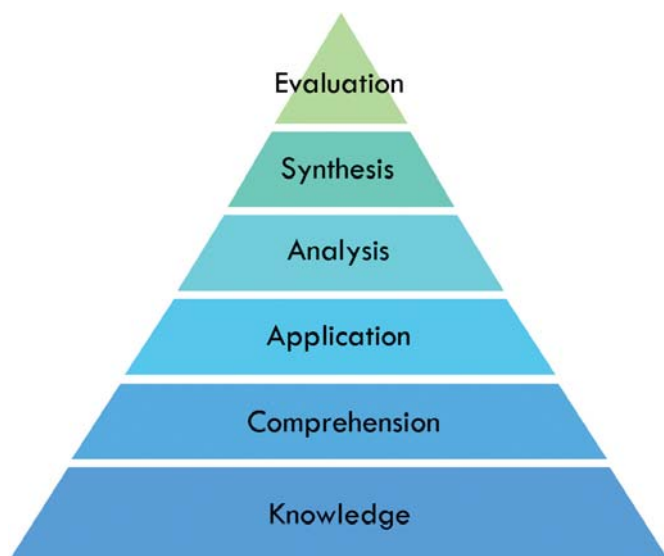

Figure 6. Six major categories in the cognitive domain of Bloom's taxonomy

and analysis categories were retained and renamed as remembering (knowledge), understanding (comprehension), applying (application) and analyzing (analysis) respectively. At the higher levels, synthesis was changed to evaluating whereas evaluation was revised as creating, which was made the top category amongst the six levels of cognitive domains (Anderson et al., 2001; Wilson, 2019) (Figure 7).

Cognitive Dimension: Creativity

Creativity refers to "(1) expanding mastered skills, and applying them to new environments; (2) confronting problems with original strategies; (3) continuously seeking answers to questions that have no apparent solutions; (4) elaborating on established theories or information; and (5) trying to solve problems with different solutions" (Education Bureau, 2019).

Figure 7. The revised model of Bloom's taxonomy of cognition

Olatoye, Akitunde, and Ogunsanya (2010) found creativity essential, for it allows people to make the most of their life experiences and their resources. Additionally, it increases self-confidence, produces ideas, new concepts and opportunities for innovation. They supported that creativity is the result of interaction between intellectual work, knowledge, motivation, cognitive styles, personality and environment. As a result, it constitutes the central element of any educational system (Olatoye et al., 2010). Similarly, Sternberg's (2003) theory of successful intelligence stated that analytical, creative and practical skills are important abilities in schools.

Creative thinking is conceptualized as one's ability for divergent thinking. The creative thinking approach aims to develop one's sensitivity, fluency, flexibility, originality and elaboration skills. They are be elaborated as follows.

(1) Sensitivity: It is the ability to detect omissions, modifications, things yet to be done, and unusual or unfinished processes.

(2) Fluency: It is the ability to make many suggestions, to react promptly, and to enable new ideas to constantly emerge.

(3) Flexibility: It is the ability to change thinking modes, to expand one's thinking style, and think outside the box. A flexible person can contemplate things from different viewpoints.

(4) Originality: It is the ability to offer extraordinary answers and novel ideas. An original individual performs unexpected and unconventional tasks.
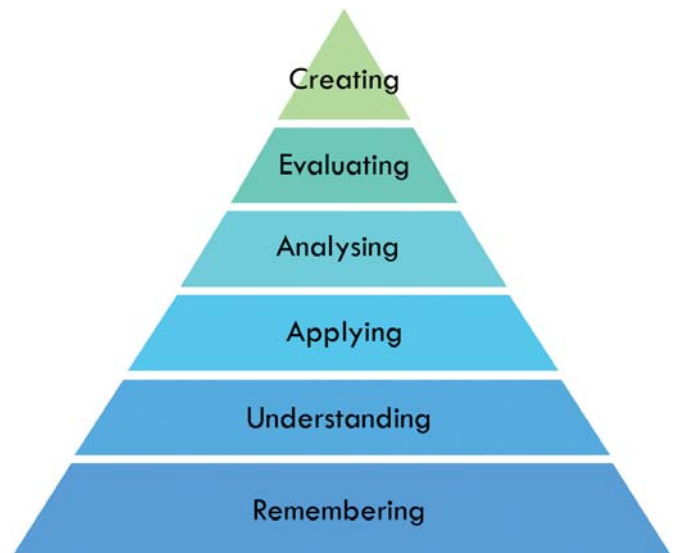
(5) Elaboration: It is the ability to use raw thoughts to expand new ideas, add interesting details, and incorporate them into a relevant cluster of concepts. An elaborative power makes an individual strive for better work outcomes through continuous improvement (Education Bureau, 2019).

Affective Dimension: Personal-Social Competence

Personal-Social Competence is conceptualized as one's attitude towards one's self (self-perception), one's attitude towards others (relationships with siblings, peers, parents and elders), and one's convictions, values and concerns about society (Education Bureau, 2019). A review of the literature has reflected that gifted students are more likely to encounter maladjustment in emotions and inter-personal relationships. They are found to be more mentally developed than their peers. However, their emotional and physical development may not match their pace of intellectual growth. Given that gifted individuals may encounter different forms of emotional and social maladjustments, the integration of an affective component into the curriculum is particularly important to address the diverse needs of gifted students, who manifest perfectionism, emotional sensitivity, emotional over-excitability, and feel differently from their peers (Chan, 1999, 2003; Peterson, 2015; Silverman, 1994; 教育局，2019；張玉佩，2001；郭靜姿，2000, 2013).

To conclude, the nurturing of creativity and higher order thinking caters for learning needs whereas the strengthening of personal and social competence meets the affective characteristics of the gifted and talented learners. In view of this, it is vital to develop a school-based curriculum to support their emotional, social/interpersonal, and /or motivational/cognitive development by school teachers and counsellors. Under this consideration, curriculum adaptations are expected to enhance the affective knowledge and skills of the high-ability students (VanTassel-Baska, Cross, & Olenchak, 2009).

Affective Domain of Bloom's Taxonomy (Krathwohl, Bloom, & Masia, 1964)

In the model, five major categories of affective domain are identified (Figure 8). At the bottom level, receiving involves awareness and willingness to attend and to listen to others with respect (Krathwohl et al., 1964). The second classification is responding. At this level, active participation on the part of the learners is the main focus. Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (Krathwohl et al., 1964).
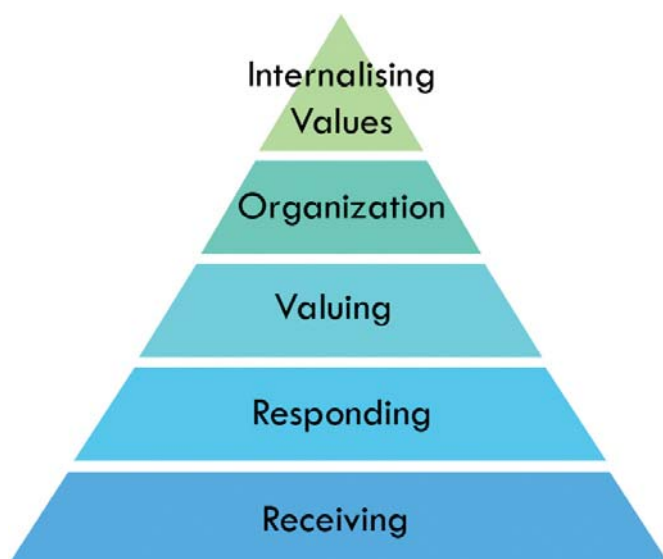

Figure 8. Five major categories in the affective domain of Bloom's taxonomy

The third category is valuing. It means the worth or value a person attaches to a particular phenomenon, or behavior. This ranges from simple acceptance of a value/belief to a more complex state of commitment or conviction. In brief, valuing represents a stage of deeper internalization (Krathwohl et al., 1964). The next stage is organization. It is assumed that when one successfully internalizes values, one encounters situations for which more than one value is relevant, consequently, organizing values into priorities by contrasting different values, resolving conflicts between them, and creating an unique value system is necessary. This category puts much stress on comparing, relating, and synthesizing values (Krathwohl et al., 1964).

Lastly, the highest stage is internalizing values. At this level of internalization "the values already have a place in the individual's value hierarchy, are organized into some kind of internally consistent system, have controlled the behavior of the individual for a sufficient time" (Krathwohl et al., 1964, p.165). As a result, such behavior is pervasive, consistent, and the most important characteristic of the learner.

School-based Gifted Education: Learning and Teaching Resource Package

Introduction of Project GIFT

To nurture children with giftedness and talents and to enhance the professional competence of school personnel in talent development and gifted education, Project GIFT was committed to providing the 20 Project Schools with school-based support in the areas of school development, professional development, curriculum development, student development as well as parent empowerment during the period 2017-2019.

One remarkable impact of the Project was on school development. More specifically, the Project collaborated with Project Schools to review and assess the strengths and needs of the schools and to formulate school-based talent development and a gifted education policy in line with Schools' Development Plans and Year Plans. Through practical experiences and close collaboration, schools were motivated to adopt a gifted education policy as one of the main directions of future school development. Another significant change was that by developing a school-based talent search database, the schools were capable of identifying the unique characteristics and potentials of their students. Consequently, they proceeded to explore and develop differentiated curricula and pull-out programmes for students with high learning potential and giftedness.

As regards professional development, the Project contributed in offering school personnel professional training by local professional academicians and overseas world renowned scholars in gifted education. More specifically, the Gifted Education Lecture Series and the Thematic Seminars cum Workshops on Differentiation were arranged with fruitful results. The programmes were generally successful in enhancing school leaders' roles in promoting and orchestrating school-based talent development and gifted education. Moreover, they were found effective in advancing teachers' professional knowledge of gifted education and their strategies to cater for students with

giftedness or high ability. Likewise, the "Evidence-based Practice and Action Research Workshop" deepened teachers' understanding of evidence-based learning and enhanced their competency in conducting action research to facilitate assessment for learning. Furthermore, the Joint School Staff Development Days on Creativity and Affective Education yielded promising results with enhanced skills in infusing creativity and affective elements into a gifted education curriculum among school leaders and teachers.

It is worth mentioning that with such strengthened professional capacity, the Project Schools were motivated to put gifted education theories and strategies into practice. In collaboration with the Project, they integrated the core elements of creativity, higher-order thinking and personal-social development into an enriched curriculum for students in regular classroom teaching (L1). Further, they developed and tried out the differentiation curriculum, instruction and assessment based on students' cognitive and affective needs and characteristics at their respective schools. Most importantly, to cater for the unique educational and psychological needs of the children with giftedness and high ability, the schools took the instrumental step of adapting the gifted education theories and tailor making a school-based differentiated curricula and pull-out programmes (L2) for Chinese Language Education, English Language Education, Mathematics Education and General Studies in primary schools, and Mathematics Education and STEM Education in secondary schools.

With a view to presenting a comprehensive picture of the curriculum/programme development, in this resource package, the rich content of gifted education theories and strategies, lesson design, implementation process, reflective outcomes, as well as evaluation based on evidence of learning are recorded. Additionally, useful learning and teaching resources with samples of learning outcomes are attached. In sum, the compilation and publication of this resource package fosters maximizing the Project's social impact. Most importantly, it helps to promote the widespread development of school-based gifted education through dissemination of good practices among local schools.

Purposes of publishing this Resource Package

Project GIFT collaborated with school management and frontline teachers to develop an enriched curriculum (L1) and pull-out programmes (L2) for students in regular classroom learning and students with high ability or giftedness in Chinese Language Education, English Language Education, Mathematics Education, General Studies in 15 primary schools and Mathematics and Science/STEM Education in 5 secondary schools.

The publication of this *School-based Gifted Education: Learning and Teaching Resource Package* is the successful outcome of professional collaboration and school-based support. It aims:

- To promote the development and implementation of Hong Kong's gifted education through dissemination of good practices among educators, curriculum leaders school principals and frontline teachers;

- To motivate teachers' professional development and advance teachers' capacity through professional sharing and exchange;

- To share and disseminate the successful development and implementation of a school-based enriched curriculum for regular classes and accelerated pull-out programmes for students with high intellectual ability and giftedness; and

- To provide opportunities for reflection by principals, teachers and related parties on how to build on their strengths and experiences in schools' gifted education policy and curriculum.

Organization of the Resource Packagee

This *School-based Gifted Education: Learning and Teaching Resource Package* is made up of a series of 5 booklets. A total of 32 successful exemplars of L1 and L2 curriculum are selected for dissemination. Books I - IV contain collection of 24 exemplars of Chinese Language Education, English Language Education, Mathematics Education, as well as General Studies from primary schools. Book V presents 8 exemplars of Mathematics and Science/STEM Education from secondary schools.

Each learning and teaching resource is composed of a Foreword, Lesson Plan, Learning and Teaching Resources, as well as samples of Student Work. To provide readers with a more comprehensive picture of all L1 enriched curricula, the background and objectives of collaboration, theoretical framework, rationale for programme / lesson design, gifted education learning and teaching strategies will be discussed in detail. Following this, reflection and evaluation based on practical experiences and evidence of learning will be examined in the discussion part of the Foreword. After that, the lesson plan, learning and teaching resources and samples of good practices are provided in the Appendices for teachers' adaptation and reference. For L2 pull-out programmes, in addition to the above-mentioned components, selection criteria and procedures for target students as well as the specific learning content and activities will also be elaborated.

Recommendations for School Curriculum Leaders & Teachers

This resource package is developed and tailor made to meet the specific cognitive and affective needs and characteristics of students of the Project Schools. To enhance learning and teaching effectiveness, teachers are strongly recommended to make necessary curriculum, instructional and assessment modifications in accordance with the diverse needs and abilities, learning styles and aspirations of students, professional competence of teachers, and gifted education development of your schools when adapting this resource package.

To encourage and motivate schools to plan and develop a school-based gifted education curriculum in the near future, Project GIFT has prepared a web version of the resource package as well as other learning and teaching resources. Further details of the *School-based Gifted Education: Learning and Teaching Resource Package* will be uploaded to our website (https://www.fed.cuhk.edu.hk/gift).