

Special Issue on STREAM Education for Gifted Students in Asia-Pacific

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Although there are still big challenges for educators in finding an optimum way to provide appropriate opportunities for gifted learners, I do believe that our experiences over time have helped us to visualize new ways of helping children develop their hidden potential. Each of us working in a particular area must continue to share our experiences and identify programs and approaches that can become best practice in gifted education. I would like to ask all of us who work in this field to join forces and create a better way to work together. In doing so, I hope our organization can become an internationally recognized center of excellence in this field.

Global Talent Mentoring: A New Virtual Online Talent Development Resource for the World

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Global Talent Mentoring is an innovative online mentoring program designed to foster excellence in science, technology, engineering, mathematics, and medical sciences (STEMM) for exceptionally talented youth worldwide through evidence-based mentoring. Global Talent Mentoring will launch in late 2020 and provide a select group of the most talented, highly motivated, and extremely hardworking youths with the privilege of being mentored by internationally renowned STEMM experts. These participants will receive ongoing guidance in the form of long-term, one-on-one mentorship to transform their STEMM talent and enthusiasm into excellence in a specific STEMM domain.

Background

The transformative potential of mentoring for talent development has been understood for decades (Bloom, 1985). Mentors can support and guide their mentees in cognitive, motivational, and affective areas of development. Mentors can validate talented individuals' aspirations, share insider knowledge, serve as role models, and provide further opportunities to explore a specific field (Pfund, Byars-Winston, Branchaw, Hurtado, & Eagan, 2016). Although mentoring programs in STEMM exist, most of them focus on interest development and the acquisition of basic domain knowledge and skills (e.g., Stoeger, Schirner, Laemmle, Obergriesser, Heilemann, & Ziegler, 2016). Mentoring programs have thus far paid little attention to excellence-focused, long-term skills development (Heilemann, Mader, Balestrini, & Stoeger, 2019) that will eventually lead a promising youth towards adult eminence (Subotnik, Olszewski-Kubilius, & Worrell, 2011) in a STEMM domain.

Global Talent Mentoring

Prof. Dr. Heidrun Stoeger and her team of international researchers at the University of Regensburg (Germany) are currently developing the Global Talent Mentoring program—an excellence-focused online mentoring network for the world's most outstanding STEMM talents. The program will restrict admission to only the strongest applicants from around the world, who, at the age of around 16, have already demonstrated outstanding achievements in a STEMM domain. They must display an extremely high level of motivation to engage in a long-term process of talent development in a specific STEMM domain. Such disciplinary focus is unusual among youths in upper-secondary education—however, as gifted and talented programs around the world can attest, such individuals do exist. Currently, this talented group is underserved.

While a host of offline and online programs offer shorter-term provisions, very few cater for highly talented learners for the extended period of time that is required to approach adult eminence in a STEMM field.

Global Talent Mentoring offers this excellence-focused long-term mentoring program entirely free of charge, thanks to the generous long-term support of the Hamdan Foundation, the UNESCO affiliated education foundation that will permanently host the program. The mentees will receive weekly one-on-one mentoring from successful experts in their respective fields of interest—not for months but for years (e.g., up to the completion of a PhD in a STEMM domain). Each mentor will work with her or his mentee to create and implement an individualized learning pathway that synthesizes the mentee's talent-development goals, learning activities, personal resources, and environmental resources for learning. For STEMM experts, their volunteer engagement as mentors will allow them to give back—at a global level—to the STEMM communities as they become part of a potent international network of like-minded experts and talents. Moreover, the mentors will have opportunities to work with exceptionally talented STEMM students from diverse countries and cultures, thus further developing their global scientific leadership and gaining cross-cultural collaboration experience.

Research-Based Program Preparation and Current Network-Building

To ensure that the Global Talent Mentoring program will launch successfully in late 2020 and fulfill the promise of the aforementioned vision, Prof. Dr. Stoeger and her team are carrying out two lines of preparation: (a) research-based program design and (b) mentor and mentee recruiting and network building.

In terms of research-based preparation, two studies are currently ongoing. The first research study employs expert interviews to identify important factors and the types of experience a promising youth needs to achieve eminence in a STEMM field. The second research study seeks to (a) unveil current best practices in mentoring through questionnaires, as well as (b) identify challenges and possible solutions for online mentoring via focus groups (e.g., mentors, mentees, researchers, program coordinators). More research studies are planned and will be carried out subsequently, such as needs assessments for online mentoring platforms and cross-cultural comparisons of talent support measures in STEMM. Once the mentoring starts, research and program evaluation will be integrative parts of the Global Talent Mentoring platform. For example, a randomized controlled trial study will compare STEMM outcomes (e.g., knowledge, self-efficacy, and interest) of participants who receive mentoring and participants in a waitlist control cohort group after one year of participation.

In terms of current network building, dozens of institutions around the world have already committed themselves to being part of the Global Talent Mentoring program. Due to the global scope of the program, we remain interested in engaging with additional institutions around the world on nominating mentees for the program, finding volunteer mentors, and collaborating on research related to the larger goals of the program. Institutions interested in collaborating on Global Talent Mentoring should contact Prof. Dr. Stoeger (heidrun.stoeger@ur.de).

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Professional Development Program for Teachers: Nurturing Affective Development in Hong Kong Gifted Education

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With funding from the Hong Kong Jockey Club Charities Trust, the Jockey Club Giftedness into Flourishing Talents" Project (Project GIFT) has engaged in strong collegial partnership with 20 primary and secondary schools. The aim was to promote and implement school-based talent development and gifted education in Hong Kong for the past two years.

An essential principle of Project GIFT is the sustainability of gifted education through close collaboration among school professionals. This high degree of collaboration bolsters the professional competency of teachers and other school personnel, which is regarded as vital in this field. Sharing a common vision with the Hong Kong Academy for Gifted Education (HKAGE)—namely that affective education is vital to meet the psycho-social and emotional needs of gifted learners—Project GIFT was instrumental in organizing twin sessions for a Professional Development Program. This was implemented as two Joint School Staff Development Days for the 20 Project Schools on March 8 and 22, 2019. The program was presented in collaboration with the Jockey Club "Gifted in Bloom—Harmony in Heart & Mind" Program from the HKAGE. The sessions were titled "Affective Education in Gifted Education," and resulted in participation by 573 teachers and school leaders from the 20 schools across the territory.



The professional development program was organized in response to voiced concerns and needs of teachers to address affective characteristics and needs of gifted and talented learners. The programs for both days were integrative in nature by combining theories and practical strategies. In the first half, Dr. Anna Na Na HUI (Senior Principal Investigator of Project GIFT) gave an inspiring delivery on the definition and importance of affective education for gifted students. To enhance teachers' understanding of affective education, Dr. HUI examined the main features and applicability of Bloom's Taxonomy: The Affective Domain (Krathwohl, Bloom& Masia, 1973). In her presentation, the five categories of Receiving, Responding, Valuing, Organizing and Internalizing Values were highlighted and used as the main theoretical framework to be applied in the second half of the program.

Following this, Dr. Ruby Shui Ha CHEUNG (Project Manager of Project GIFT) addressed the unique affective characteristics and needs of gifted students at different developmental stages of childhood and adolescence. To enhance the professional competence and capacity of teachers, she explored with participants the different roles that are played by various stakeholders in supporting and promoting affective education. Specifically, school teachers and leaders were recommended to take up roles as care-givers, subject specialists, program deliverers, specialist supporters, teachers-in-charge of specific units, and school administrators/managers. In sum, participants gained a greater understanding of their essential roles in affective education. They realized that they could contribute to building a supportive environment for gifted students by performing different roles (Lang, 2002). Most importantly, the session illustrated how teachers can address students' affective needs and thus reduce emotional maladjustment often found among gifted learners. In addition, Ms. Tracy Ching Man KWOK and Ms. Candy Sin Ting LAU from the HKAGE shared ideas on support services to cater for the affective needs of the gifted. Their presentation was in line with Bloom's Taxonomy in the Affective Domain, and presented practical strategies for use in schools.

Special thanks should go to one of the Project Key Schools. The teacher representative Ms. Pui Yan LEUNG from Heung Hoi Ching Kok Lin Association Buddhist Chan Shi Wan Primary School shared with the audience details of their school-based affective curriculum. She explored appropriate pedagogies to illustrate how the school in corporated key elements of affective education into the subject curriculum and student-oriented programs across school levels. She shared good practices in Chinese classrooms and whole-school programs using videos and photo illustrations. Her sharing was well received. Teachers were able to grasp how effective pedagogies in regular classrooms can tap the potential of students in creativity, critical thinking, problem-solving and language skills.

In the second half of the program on both days, subject-based discussion and presentation of theories into practice echoed well with the first half of the program. Teachers and principals were given the opportunity to consolidate the learnt concepts, and to develop their confidence in putting knowledge into practice, with facilitation and stimulation from speakers, a School Development Advisor and Officers, and HKAGE representatives. The teachers could bring forward knowledge and inspiration during the subject-based group discussions, and were able to reinforce their understanding of the affective needs and concerns of their own gifted and talented students. A very fruitful outcome from the program was that teachers were given an opportunity to sit together to design affective learning and teaching strategies for integration into a regular lesson of Chinese Language, English Language, Mathematics, General Studies/ STEM education. This professional exchange gave rise to a learning community in gifted education among a group of committed teachers from different schools.

In addition to the subject-based discussion and presentation, two speakers Ms. Hoi Lan LEE and Mr. Chung Wa YU, teachers from Po Leung Kuk Grandmont Primary School, disseminated good practices in gifted education curriculum for Chinese Language. One great success was that through their presentation, teacher participants were enabled to enhance their competence in pedagogies to nurture and develop students' potentials in creativity, higher-order thinking skills, and language skills in regular classrooms for all students and in pullout programs for high ability and gifted students.

To conclude, the Staff Development Program on both days closed with promising outcomes and encouraging visions among the participating school teachers and leaders. Most of the participants recognized that their knowledge of affective education and affective characteristics of the gifted and talented learners was greatly enhanced. A majority of them realized the importance of affective education and would render their support to students in their various roles at schools. The strengthened competency of these devoted educators would definitely bring stronger affective education into schools.

We hope that through the professional development program, school teachers and leaders were enabled to bolster their professional competency in gifted education, and ultimately adapt strategies in the long-term school and curriculum plans to cater for the learning and affective needs of students with high ability and talents. To learn more about Project GIFT visit http://www.fed.cuhk.edu.hk/gift/.

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The Theory of Participatory Giftedness: A New Direction for Contextualizing Giftedness in Saudi Arabia

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What makes giftedness? It seems difficult to find agreement on a definitive concept of giftedness due to the different contexts in which giftedness is constructed. This contribution focuses on the paradigm of giftedness within the context of core education in schools.

The Definition of Giftedness in Saudi Arabia

Cluntun (2002) referred to the definition of gifted students in Saudi Arabia:

The students who have aptitudes and exceptional abilities or distinguished performance from their peers in one or more fields that are considered by the society, particularly in the field of cognitive talent, creative thinking, academic achievement, special skills and abilities, and the students need special educational provisions that are not broadly provided in the regular school programs (p.23).

From this definition, gifted programs can be seen as alternative education, provided within special programs outside the regular classroom (e.g., pull-out programs) to meet gifted students' needs.

Participatory Giftedness as a Paradigm Shift

The most challenging aspect of defining giftedness is the separation between gifted education and core education directed to all students. Considering gifted education as a separate system is controversial. As Borland (2005) clearly pointed out in "Gifted Education Without Gifted Children", "the aims of the field of gifted education would have a greater likelihood of being realized if we were to dispense with it altogether." (p.1)

Considerable effort has been devoted to identifying and selecting gifted students to place them in a separate learning environment or in additional extension courses. However, rather less attention has been paid to developing core education so that giftedness can be nurtured within that context to raise all students' abilities and to meet all students' needs. Derived from the model of Participatory Action Research for Professional Development (Alamiri, 2013), the theory of participatory giftedness (TPG) and its model have been developed to contextualize the conception and pedagogy of giftedness in the regular classroom in Saudi schools (Alamiri, 2015). Heron and Reason (1997) defined the participatory paradigm as the ways of creating knowledge that emerges from participants' interaction and their lived experience. They argued that the participatory paradigm 'allows us as human persons to know that we are part of the whole, rather than separated as mind over and against matter' (p. 275). From this paradigm, I drew the following definition of giftedness:

Giftedness emerges from the participatory context that constructs the interaction among individual synchronous development, constructed knowledge, learning process, and creative productivity that shows the observable outcomes, which interpret the level and impact of individual's or group's talents, contribution, and excellence as determined within the particular context.

In addition to the participatory paradigm, the above definition of giftedness was influenced by theories such as constructivist learning theory (e.g., Vygotsky, 1978), and also by some broad conceptions of giftedness (Borland, 2015; Lo & Porath, 2017; Plucker & Barab, 2015; Tomlinson, 2014). The TPG defines giftedness as an integrated paradigm within the root of the educational context and its interactive components to provoke the valuable outcomes of gifted individuals (e.g., knowledge, behavior, products, human values, thought, social responsibility). As a result, the Participatory Model of Giftedness (PMG) has been developed to demonstrate the framework for how giftedness is constructed and emerges from the interactive and participatory context.

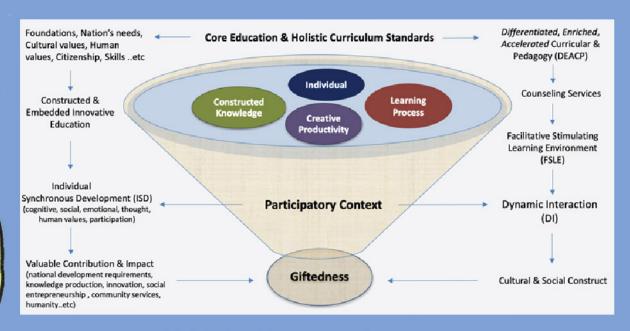


Figure 1: Participatory Model of Giftedness (Alamiri, 2015, 2019)

Overall, the underlying assumptions of PMG can be summarized by the following points:

- Giftedness is socially constructed and embedded and needs a participatory context to emerge.
- Giftedness cannot be merely defined by the measurable inputs/ indicators that shows one's potential.
- Human potential needs a context to interact with and grow through to produce the 'gifted'
 outcomes whereby giftedness is defined and evaluated, and therefore the term 'Applied Giftedness'
 meshes well with the participatory context.
- Creative productivity shows the evidence of one's and group's talents and excellence that emerge from the participative context.
- The participatory context aims to provide all students with opportunities that allow them to interact and progress within their natural individual differences and needs.
- In addition to the common skills (i.e., cognitive, social, and emotional skills), human values (e.g., peace, coexistence, moderation), citizenship, and social capital are fundamental for the synchronous development of individual in the participatory context of giftedness.

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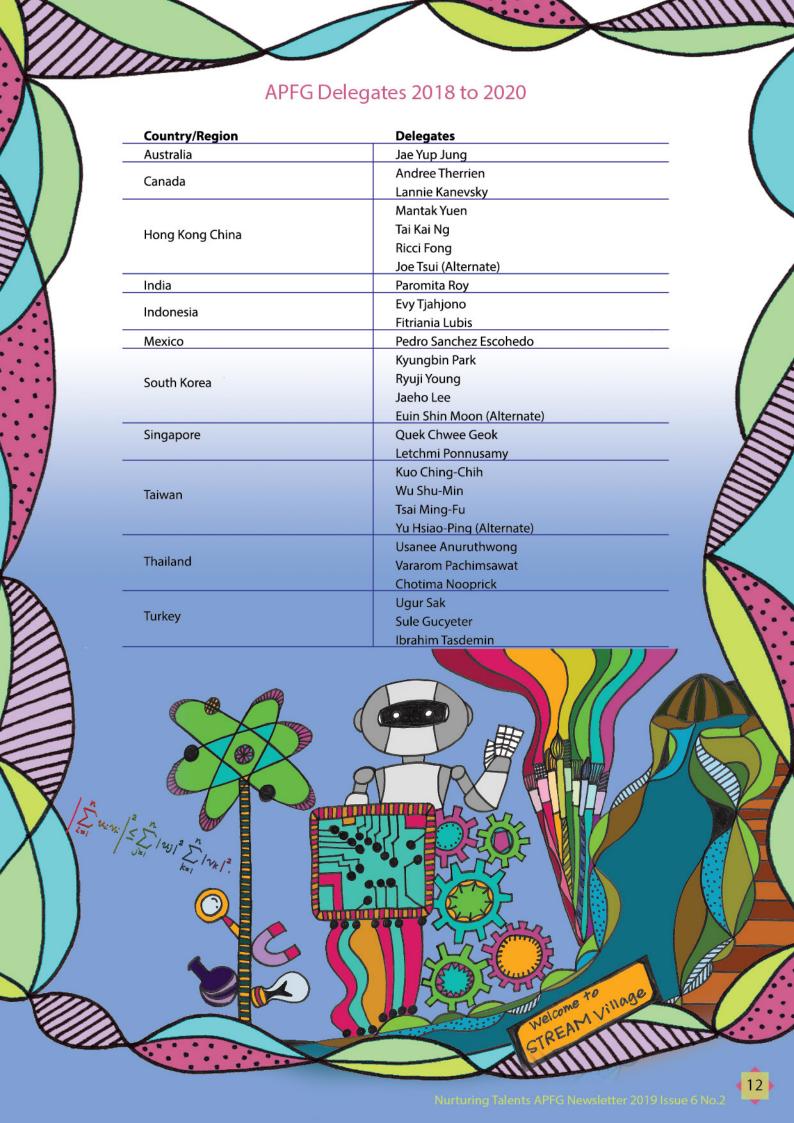
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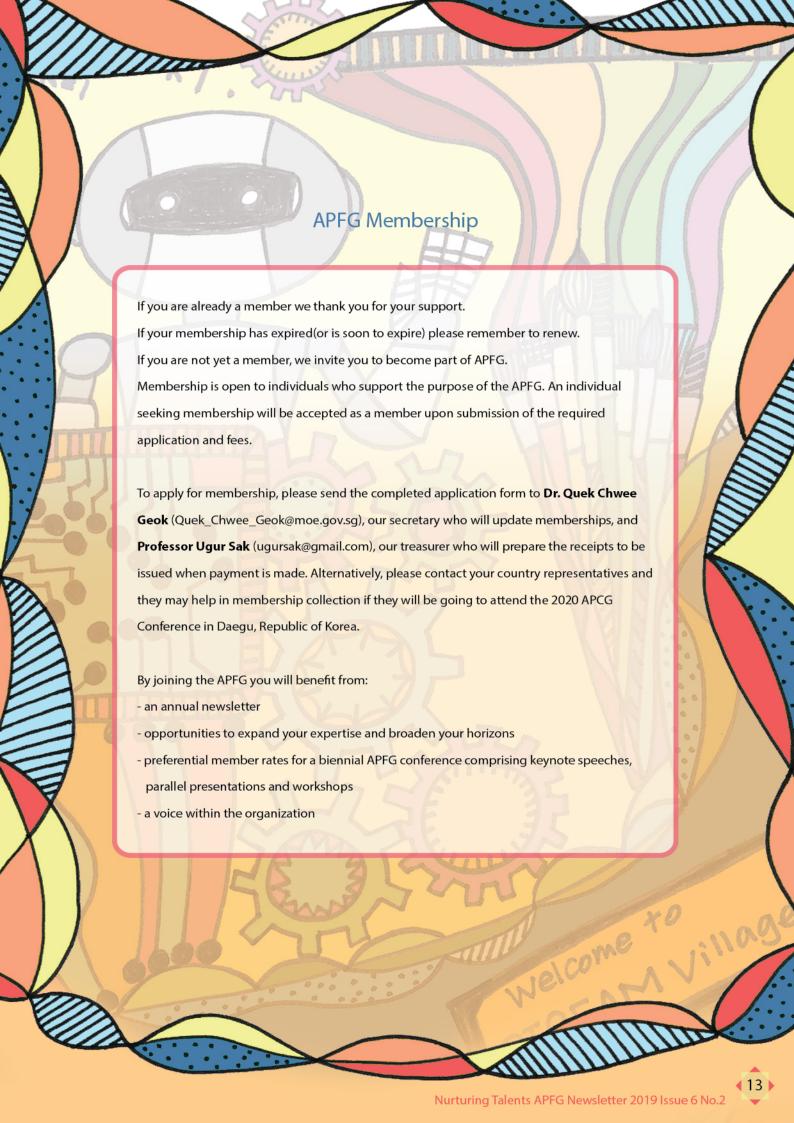
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Meetings and Conferences in Brief

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http://www.apfggiftedness.org/

30 July- 3 August 2020 at Daegu, Korea

hosted by Asia-Pacific Federation on Giftedness (APFG)

17th International ECHA Conference

http://www.echa2020.org/

9-12 September 2020 at Porto, Portugal

hosted by The ECHA (European Council for High Ability), and the Portuguese Association for Gifted Children

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