Gaps and go in policy, practice and research of gifted education in China, Hong Kong, Singapore, and Taiwan

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Introduction. PISA 2012 Performance

Snapshot of performance in mathematics, reading and science (Math top 20, OECD, 2012)

Countries/economies with a mean performance/share of top performers above the OECD average
Countries/economies with a share of low achievers below the OECD average

Countries/economies with a mean performance/share of low achievers/share of top performers not statistically significantly different from the OECD average

Countries/economies with a mean performance/share of top performers below the OECD average
Countries/economies with a share of low achievers above the OECD average

	Mathematics				Reading		Science	
	Mean score in PISA 2012	Share of low achievers in mathematics (Below Level 2)	Share of top performers in mathematics (Level 5 or 6)	Annualised change in score points	Mean score in PISA 2012	Annualised change in score points	Mean score in PISA 2012	Annualised change in score points
OECD average	494	23.0	12.6	**-0.3**	496	**0.3**	501	**0.5**
Shanghai-China	613	3.8	55.4	**4.2**	570	**4.6**	580	1.8
Singapore	573	8.3	40.0	**3.8**	542	**5.4**	551	**3.3**
Hong Kong-China	561	8.5	33.7	**1.3**	545	**2.3**	555	**2.1**
Chinese Taipei	560	12.8	37.2	1.7	523	**4.5**	523	-1.5
Korea	554	9.1	30.9	1.1	536	**0.9**	538	**2.6**
Macao-China	538	10.8	24.3	**1.0**	509	**0.8**	521	**1.6**
Japan	536	11.1	23.7	0.4	538	**1.5**	547	**2.6**
Liechtenstein	535	14.1	24.8	0.3	516	**1.3**	525	0.4
Switzerland	531	12.4	21.4	0.6	509	**1.0**	515	0.6
Netherlands	523	14.8	19.3	**-1.6**	511	-0.1	522	-0.5
Estonia	521	10.5	14.6	0.9	516	**2.4**	541	1.5
Finland	519	12.3	15.3	**-2.8**	524	**-1.7**	545	**-3.0**
Canada	518	13.8	16.4	**-1.4**	523	**-0.9**	525	**-1.5**
Poland	518	14.4	16.7	**2.6**	518	**2.8**	526	**4.6**
Belgium	515	19.0	19.5	**-1.6**	509	0.1	505	-0.9
Germany	514	17.7	17.5	**1.4**	508	**1.8**	524	1.4
Viet Nam	511	14.2	13.3	m	508	m	528	m
Austria	506	18.7	14.3	0.0	490	-0.2	506	-0.8
Australia	504	19.7	14.8	**-2.2**	512	**-1.4**	521	-0.9
Ireland	501	16.9	10.7	-0.6	523	**-0.9**	522	**2.3**

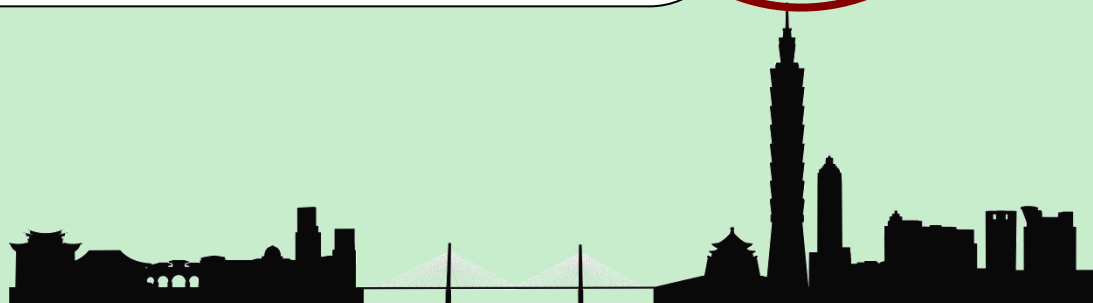
Introduction. Outline

Section 1	• Description of gifted educational policies, practice and research
Section 2	• Identifying gaps among GE policy, practice and research
Section 3	• Discussion on filling the gaps

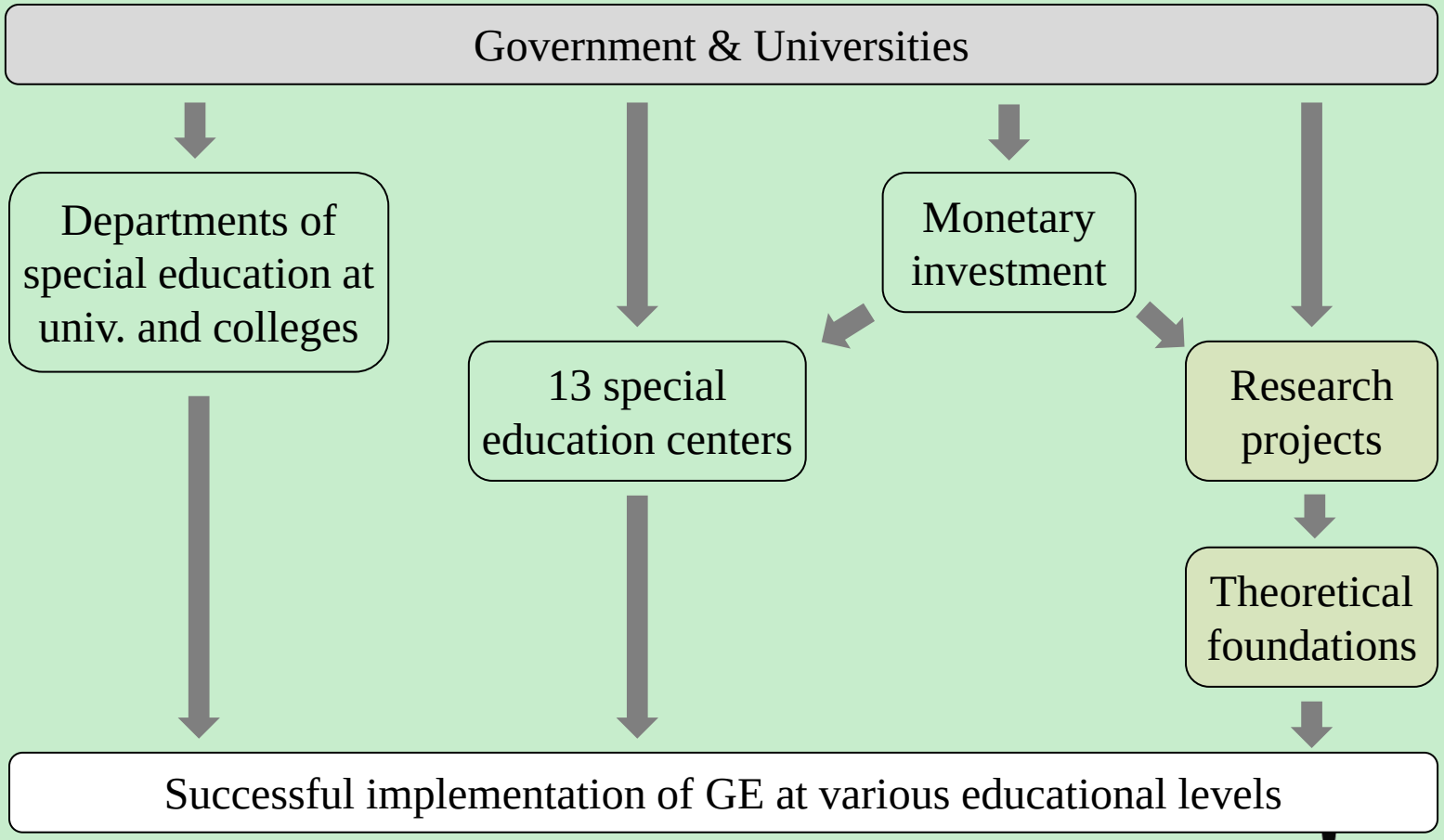
GE in Four Societies. Taiwan. Policies

- Special Education Act (1984; 1997; 2009; 2013);
- The Regulation for Curriculum and Teaching Materials, and the Methods of Special Education (1986);
- The Enforcement Rules of the Special Education Act (1987; 2013);
- The Government Regulations for Early Admission and Academic Acceleration for Excellent Student (1999);
- The White Book of Gifted Education (2008);
- The Five year's Medium Term Development Plan in Gifted/Talented (GT) Education (2015).

Strong mandates to develop GE practice



GE in Four Societies. Taiwan. Policy, Practice & Research



GE in Four Societies. China. Policies

- Implementation Measures of Pilot Program of Top-notch Student Cultivation in Basic Disciplines (2009);
- Outline of National Medium-and Long-term Program for Talent Development (2010-2020) (2010);
- Implementation Suggestions of Programs for Educating and Training Outstanding Engineers (2011);
- Pilot Implementation Measures of Middle School Student Talent Plan in 2016 (2016).

Lack of policies regarding GE in the compulsory education stage

GE in Four Societies. China. Policy, Practice & Research

Supernormal Children: children whose cognitive ability level were at least two standard deviations higher than the normal peers

Cooperative Research Group of Supernormal Children

Government

Early college entrance programs

Experimental classes

Innovative talent cultivation programs

Program acceleration (e.g., grade skipping, early graduation

Current GE Provision

GE in Four Societies. Hong Kong. Policies

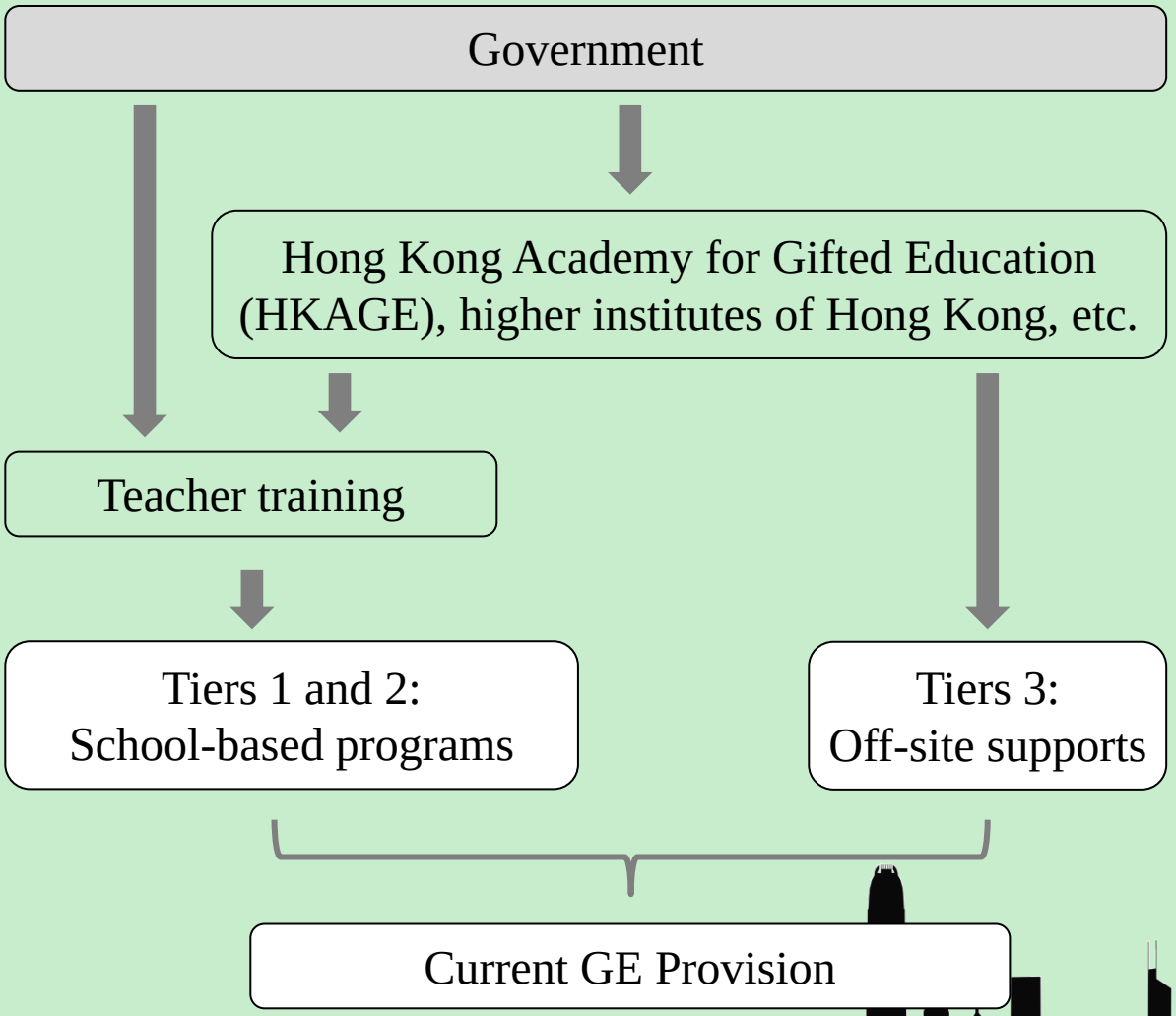
- The Education Commission Report No. 4 (ECR4, 1990)

(1) GE should be **part of quality education** to help gifted students develop their potential more fully;
(2) A **broad definition of giftedness** should be adopted;
(3) GE should be conducted through **school-based programmes in mainstream schools supplemented by territory-wide out of school program.**

- The Development of Gifted Education in Hong Kong (2000)

(1) The operational **definitions** of giftedness should acknowledge **both general and specific abilities**;
(2) A school-based **identification** mechanism involving a **multi-criterion and multistage process** should be developed for the identification of gifted students;
(3) GE should be operationalized according to a **three-tier model**, from whole class participation (Tier1) through **school-based pullout programmes** (Tier 2) to **off-site supports** for the exceptionally gifted (Tier 3).

GE in Four Societies. Hong Kong. Policy & Practice



GE in Four Societies. Singapore. Policies & GE Schools

Policies

- Implementation of Gifted Education Program under the establishment of Gifted Education Branch, Ministry of Education (1984);
- Integrated Program stated in the Report of the Junior College (2003)

GE Schools

- Singapore Sports School (2004);
- National University of Singapore High School of Mathematics and Science and the School of the Arts Singapore (2008);
- The School of Science and Technology, Singapore (2010)

GE in Four Societies. Singapore. Key Facts

Policy

- From the perspective of the government, GE aims "to provide **leadership** in the education of the intellectually gifted", and to "nurture gifted individuals to their full potential for the fulfillment of self and the betterment of society. " (MOE of Singapore, 2016).

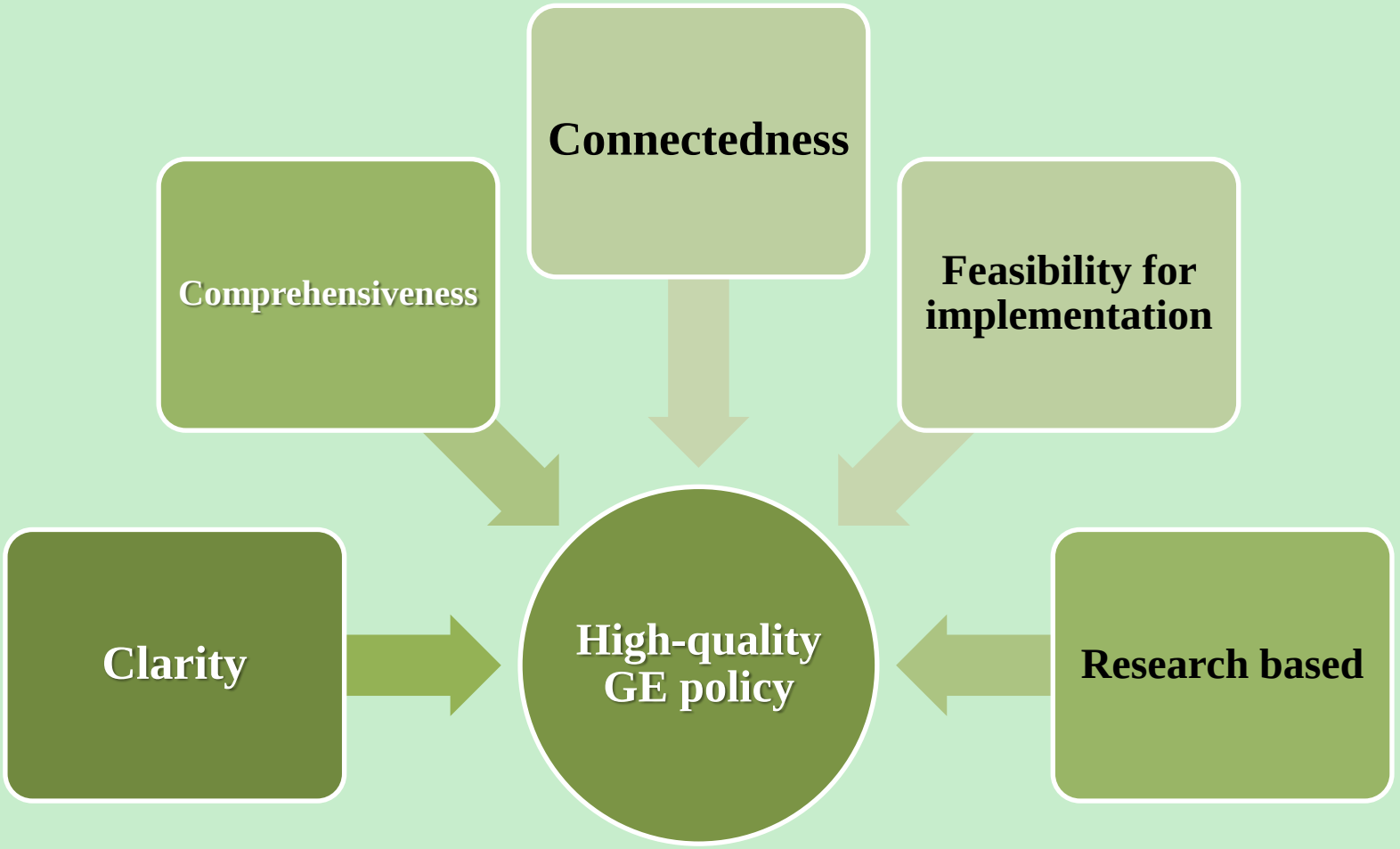
Practice

- Today, 9 primary schools and 7 secondary schools in Singapore offer GE special programs (e.g., mathematics, sciences, and humanities) to selected students from primary 4 to primary 6 (age: 10/11 to 12/13 years old), from secondary 2 to secondary 4, and higher secondary school years.
- Over decades, broadening GE pathways include the integrated programs (IP, started in 2004) for GE students to proceed directly to the university qualifying examinations or the International Baccalaureate (IB), special schools (sport in 2004, mathematics and science and arts in 2008, and science and technology, 2010) (Neihart & Teo, 2013).

Research

- There is no single nationwide framework on GE or a nationwide research project on GE school and teacher education. Teachers and faculty members draw on existing frameworks and theories in the English language literature as part of their materials of teaching and research.
- Inquiries into the effects and impacts of GE program have been dependent on personal contacts.

Gaps among policy, practice and research in GE. Criteria



(vanTassel-Baska, 2009)

Gaps among policy, practice and research in GE. Clarity

Clear and unambiguous definition of giftedness;
With a common understanding and interpretation of giftedness .

China

Not Clear

No clear definition in formal policies;

Mostly focused on **science and technology**.

Singapore

Not Clear

Mentioned as **“intellectually gifted”** in official statement;

Mostly focused on academically gifted.

Hong Kong

Clear

No mandate but a formal policy;

Clear definitions with **6 categories**.

Taiwan

Clear

A mandate policy;

Clear definitions with **6 categories**.

Gaps among policy, practice and research in GE. Comprehensiveness

China

The stage of **compulsory education** is not covered by current GE policies.

Singapore

No GE provision before the age of 10;
No undergraduate program for gifted or high ability education provided in normal universities

Hong Kong

Undertaking regular staff development in GE is not mandatory in personnel preparation

Taiwan

More comprehensive

Gaps among policy, practice and research in GE. Connectedness

China

As the stage of compulsory education is not covered by current GE policies, thus GE programs in this stage are not supported by the policies

Singapore

No guarantee in teacher provision, and not informed about **quality**

Hong Kong

The implementation of the programmes compared to the intention of the policies remains unknown.

Taiwan

More Connected

Gaps among policy, practice and research in GE. Feasibility for implementation

China

Feasible

Sustainable development of the three types of GE

Singapore

Feasible

Sustainable development of domain specific enrichment programs

Hong Kong

Feasible

Sustainable development of tier-1, tier-2 and tier-3 programs; **Gap: Multi-criterion and multistage process in identification**

Taiwan

Feasible

Sustainable development of enrichment programs and resource classrooms

Gaps among policy, practice and research in GE. Research based

China

GE in China **began with a research group**.

Current **empirical research** on gifted programs is limited (Dai et al., 2016)

Singapore

No nationwide research project on GE providing a **framework** of GE in Singapore;

Lack of **evaluation** of GE programs

Hong Kong

The implementation of the programmes compared to the intention of the policies remains unknown;

Policy falling behind modern development in research

Taiwan

Lack of appropriate instruments for **identification of twice-exceptional (2E)** students

Discussion on Filling the Gaps. China

Government

- Rethink the significance of individual needs of gifted schoolchildren
- Reallocating certain proportion of the resources to the early talent development, providing the group with systematic and continuous support during the whole period of education

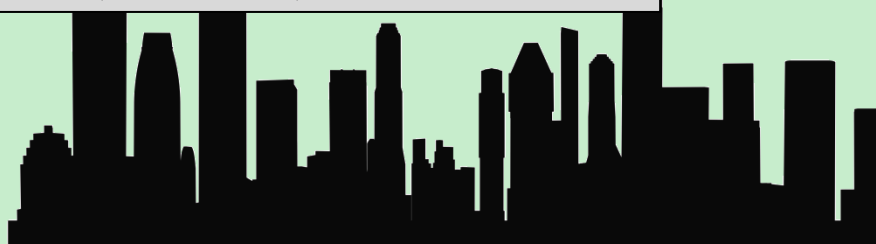
Consult GE practitioners for practical knowledge of GE reality in Chinese society

- GE program evaluation: systematically integrate and empirically investigate the status of the GE programs

Researchers

Discussion on Filling the Gap. Singapore

No GE before the age of 10	Explore ways to embrace these children before the age of 10; Broaden teacher training programs and curricula to include comprehensive and early identification of learning desires of people with gifts.
No undergraduate program for gifted or high ability education provided in normal universities	-Integrate developing children with gifts into other components of education -Broaden teacher training programs and curricula to include GE
No single nationwide framework or nationwide research project in GE	Develop evidence-based (multi)cultural models of educating people with gifts, high abilities, and (dual) exceptionalities (Tan, 2016)



Discussion on Filling the Gaps. Hong Kong

The policy is not mandated	Legislation
More funding is required to be attached to the implementation of the policy	Financial supports
The unclear effectiveness of program implementation; Unique three-tier model of GE	Systematic GE program evaluation

Discussion on Filling the Gap. Taiwan

Promote a new thinking in GE

-Dispel the myths and stereotypes surrounding GE;

-Prepare realistic measures for identifying and placing students with multiple intelligences

Reiterate a full commitment to education

-Offer supportive policies

-Reduce regulatory restrictions

-Provide a reasonable level of financial support

-Exhibit caring attitude rather than close supervision

Foster equal opportunities for GE

-Respect various cultures

-Cultivate the gifted among the disadvantaged

-Design unbiased assessment measures

-Identify the potentially gifted

-Provide opportunities to realize potentials

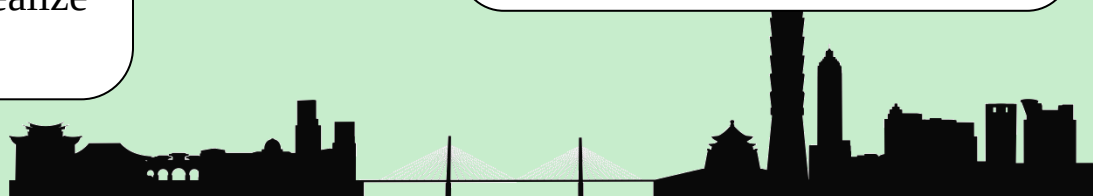
Allow flexibility of identification and placement

Provide:

-Various education services

-Flexible and adaptable identification mechanisms,

-Assessment of both ecological and real concerns



Future Directions

What are other critical factors that contribute to the achievements of our students?

- Is it the Confucian Heritage Culture (Philipson, & Philipson, 2016)?
- Is it the cultural effect on the psychology of research excellence (Freeman, Raffan, & Warwick, 2010)?

Is it more feasible because of a narrow definition of giftedness focusing only on academically gifted (Zhao, 2016)? Or is it an integration of GE as a form of creative practice of education for all (Tan, 2016)?

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Thank you!
Keep in Touch!

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