

Gifted education in Hong Kong and Israel: A comparative study

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Abstract

Hong Kong and Israel share many characteristics that might have influenced both of their education systems. These characteristics can be divided into two main kinds, first, cultural-traditional issues, and second, Geopolitical-economic-historical issues. Meanwhile, there are distinctive differences between gifted education policy as well as students' academic performance in Hong Kong and Israel. The purpose of this paper is to review the main characteristics of gifted education in both Hong Kong and Israel, and at the same time, compare the similarities and differences of them.

Background

Although Israel and Hong Kong seem to have totally different backgrounds and developmental aspects, they share many characteristics that might have been influenced by their education systems. These similar characteristics can be divided to two main kinds, one on cultural-traditional issues, and another on geopolitical-economic-historical issues. We shall gain insight into this educational riddle by a careful comparison between gifted education in these two countries.

Similarities on cultural-traditional Issues

High academic expectations

It is not surprising that high levels of student learning and achievements are expected by parents and teachers, and are valued in the societies in both Israel and Hong Kong cultures. This subject has been widely explored in David and Wu (2009).

One of the indicators of the exceptional level of Jewish students in the US is the high rate of students in all top US universities (Jewish Student Populations at Various Colleges & Universities, 2011). For instance, more than 40% of Barnard College is Jewish (Jewish Student Populations at Various Colleges & Universities, 2011); Barnard is one of the best 12 New York Universities (SAT Scores for Admission to Top New York Colleges, 2011), as well as one of the 12 Top Women's Colleges in the US (2011). In addition, Jews comprise over 30% of the populations in many Ivy League and other first rate universities, such as Harvard University, Tufts University, George Washington University and University of Pennsylvania (Jewish Student Populations at Various Colleges & Universities, 2011).

Similarly, while the Asian population is not more than one percent in some big US cities, Asian Americans made up about 5% of the US's population, as of 2008 (Asian Nation, 2011). The percentage of Asian students in gifted programs has been un-proportionally high (Truth in Labeling, 2007; Yoon & Gentry, 2009). In fact, according to Truth in Labeling (2007), 7.47% of white students in comparison to 9.9% of Asian students participate in gifted programs. According to Kitano and DiJiosia, (2002):

Examination of data for those [the 1998/9] assessed and those who qualified for GATE during the 1998-99 school year indicated that of 14,778 students tested during the year, 3,108 (21.03%) qualified for GATE programs. Examination of data for Asian subgroups showed a wide range in percentages of children who qualified, with Chinese (50.47%), Korean (47.44%), Asian Indians (45.45%), and Japanese (41.30%) well above the mean for the total group assessed.

This fact reflects the key issue that, in both Jewish and Chinese cultures, the importance of higher levels of learning and achievements are significantly valued.

Not only is education highly important to Jewish and Chinese, high achievement and success in future lives are believed to be more closely related to endeavour and hard work, rather than to merely individual intelligence. Confucius (551-479BC) believed that effort was more important than innate ability in determining future success, and such a belief has since been a deep-rooted, distinctive characteristic of Chinese culture. In Hong Kong, the influence of traditional Confucian philosophy on education has been kept more intact than that in mainland China, as it

was not strongly affected by the “Cultural Revolution” of the 1960s to 1970s. Some cross-national studies (Ho, 1994; Rao et al., 2000; Stevenson & Stigler, 1992) on students’ achievement in Hong Kong, mainland China and Japan have found that there is a strong emphasis on academic achievement and effort, and it is closely related to the traditional Confucian philosophy regarding parenting and their high expectation for children on education. The result of a recent study (Phillipson, 2009) with 215 elementary students in Hong Kong indicated that parental expectation plays an important role in children’s academic achievement.

Confucian philosophy believes that all children have the potential to be gifted and talented, but Western culture believes that only a small proportion of children have gifted potential (Freeman, 2004). Many studies have indicated that this traditional Chinese culture on education attributes success to effort and failure to lack of effort, while Western culture tends to attribute success and failure to the level of ability (see Wu, 2009a). It is popularly believed in the West that children must be identified as gifted first, before they can be supported by schools and/or families for further development of their giftedness and talents.

For thousands of years, one Chinese tradition is to respect the elders. Even nowadays, except for most families in big cities, Chinese families still tend to have three or more generations living together, with grandparents being taken care of by the adults of younger generations. In big cities like Hong Kong, mainly due to the limited housing situation, family size is normally small, and parents with children mostly live separately from grandparents. However, this situation does not stop the tradition of the younger generation taking care of their parents, physically, financially, and psychologically.

In Hong Kong, after a hundred years of the colonial system, the traditional Chinese culture mingles with the Western culture, and it is not difficult to see that both the Chinese moral values and Western values are accepted and respected. For instance, an elder son of a family would financially support parents who are retired or sick, and sometimes grandparents would help their adult children take care of grandchildren, but at the same time, the younger generation have much more independence in making family decisions, in choosing their own careers, or in choosing their spouse.

The main important values influencing education through Judaism, which is the official religion in Israel, include the following.

Obligation to formal commands

In Judaism, the person, the individual, must oblige to the ‘613 commandments’. In Judaism, following the exact orders is essential for being an observant Jew, and a large part of the learning in Yeshivot – higher education religious institutes – is dedicated to knowing and deeply understanding them.

Judging a person by efforts

One of the role models Judaism is proud of is that of Rabbi Akiva (ca.50-ca.135 CE), the scholar who had been the shepherd of Kalba Savua, a wealthy Jerusalemite, who later married his daughter Rachel (*The Babylonian Talmud*, Ketubot 62b-63a; Nedarim 50a). Eventually he became one of the earliest founders of rabbinical Judaism, but his story is a symbol of diligence, persistence, overcoming a low-status origin and being prejudiced against all odds.

The superiority of spirituality over intellectualism

In *The Book of Deuteronomy*, the fifth book of the *Pentateuch*, where men’s obligations are summarised, there is no mention of any objective, modern achievement, as a goal of life, but rather:

And now, Israel, what doth the LORD thy God require of thee, but to fear the LORD thy God, to walk in all His ways, and to love Him, and to serve the LORD thy God with all thy heart and with all thy soul. To keep for thy good the commandments of the LORD, and His statutes, which I command thee this day? (10, 11-12)

Respect to the old and moral values

Both Jewish and Chinese traditions cherish the old, teach their youngsters the ancient knowledge and values, and present themselves as the contemporary followers of wisdom based on religion and its mores. For instance, in traditional China, competition and hard work are merited (Cheng, 2008). Meanwhile, expended moral education in the Chinese context is a holistic notion that includes nearly all aspects of education: ethics, values, relations, responsibilities, discipline, respect, honesty, emotions, leadership and so forth (Cheng, 2008).

Similarities on geopolitical-economic-historical issues

Besides the cultural-traditional issues discussed above, Hong Kong and Israel also share some similar characteristics regarding their geopolitical, economic, and historical aspects.

Population

The population in Israel was almost 7.7 million at the end of 2010 (Statistics, Israel, 2011, table 2.2), while Hong Kong is over 7.1 million (Index Mundi, 2011). Though the physical areas are totally different, one in the East of Asia and another in the West of Asia, both areas are close to the ocean, and are both metropolitan cities with strong economic development in the past few decades.

Lack of natural resources

In both Hong Kong and Israel, there is a lack of natural resources; their economies depend mainly on human resources. Such a situation and the need to rely on human fortune is one of the main similarities between the two parties (Hart & Tian, 2008; Jeffay, 2008; Wood, & Berge, 1997). It is indeed closely related to why nurturing gifted and talented students, the 'upper part' of human resources, should be encouraged.

Similar gross domestic product

Both Israel and Hong Kong have a similar Gross Domestic Product (GDP) per capita. According to the International Monetary Fund, GDP per capita in 2008 was 30,755 in Hong Kong, while in Israel it was 28,365. According to the World Bank, the GDP in 2007 was 29,845 in Hong Kong and 22,563 in Israel.

The main difference: In educational achievements

The imperial system in traditional China underpins the educational values held by parents and students in Chinese communities (Cheng, 2009). In Israel, especially in the general public education, traditional values do not play a key role. The main goal of the Israeli education system has become being entitled for the matriculation certificate (David, 2010). The level of this certificate has been substantially deteriorating over the last 40 years, so that eligibility has had a 250% increase during this time period (Konor-Atias & Abu-Hala, 2009).

This difference may directly lead to another significant difference between Hong Kong and Israel – students' academic achievements. Hong Kong students are highly competitive academically, and they are known for being hard-working and competitive. They have demonstrated such qualities in international comparisons of student achievements or student abilities, in which Hong Kong students are always ranked among the top (Cheng, 2009). While Hong Kong scores at the top of the world in students' achievements – Literacy: 533, Mathematics: 555, Science: 549 – Israel had poorer

achievements: Literacy: 474 (between Croatia and Luxembourg), Mathematics: 447 (between Turkey and Dubai); Science: 455 (between Chile and Serbia) (OECD 2010).

Main principle of public gifted education in Israel and in Hong Kong

It is usually difficult to deliver gifted education programs at schools in Hong Kong, as the concept of giftedness was not popular in Hong Kong until recent years (Yeung et al., 2008). According to Wu (2009b), gifted education in Hong Kong officially started in 1990 when the Hong Kong government launched an initial blueprint, Education Commission Report No. 4 (Education Commission, 1990), for the development and implementation of gifted education.

Nonetheless, the current gifted education policy in Hong Kong was formulated in 2000, and it operates under a three-tier framework comprising of operations at (1) Level 1: Whole-class (school-based) with all students in primary and secondary school; (2) Level 2: Pull-out (school-based) with selected outstanding students as targeted group; and (3) Off-site support with gifted students nominated by schools as targeted group (Tommis, 2008; Education Bureau [EDB] Gifted Education in Hong Kong). Normally, individual schools are responsible organisations for implementation of the policy at Levels 1 and 2, while the Gifted Education Section of EDB and local universities or tertiary institutes are the responsible organisations for Level 3.

According to EDB, the mission of gifted education "is to fully explore and develop the potentials of gifted students systematically and strategically by providing them with opportunities to receive education at appropriate levels in a flexible teaching and learning environment" (Gifted Education, 2011).

According to the data of the Knesset, the Israeli Parliament (Vorgan, 2006), the rate of grade 3-6 Israeli children participating in gifted programs was 1.04%. This is about a third of those identified as gifted, which stands at 3%. Among junior high school children, the situation regarding participation in gifted programs was much more severe: in the year 2006 only 0.62% of junior high school students participated in gifted programs, which is about 20% of those entitled to them (Vorgan, 2006).

In the 2002 school year there were 1,118,724 3rd-12th grade Israeli students in the school system. About 17,760 of them belong to percentile 98.5, and thus the number of

identified gifted students is much lower than expected.

Furthermore, in the year 2002, students of percentile 97 were also identified as gifted by the Ministry of Education (Goldman, 2002). Some of them were served in special programs for the gifted. For example, in Haifa, the largest city in Northern Israel, and the third-largest city in the country, with a population of over 265,300, there are two different programs for the gifted. The first are gifted classes at the David Yellin School in Haifa for third, fourth, and fifth graders, and at the Leo Baeck School for 7th-12th graders. These classes are aimed for percentile 98.5 students. In addition, the Gordon Academic College of Education offers afternoon enrichment classes for the gifted, intended for percentile 97 children. Thus, while the actual number of gifted children belonging to percentile 98.5 is much lower than that of those identified as gifted, and in many municipalities all children belonging to percentile 97 have an opportunity to get some kind of gifted education, the total number of the gifted who participate in any gifted program is not higher than a third of those identified.

According to Freeman (2004), in 2002, 12,000 students in 3rd to 12th grades were identified as intellectually gifted in Israel. They score in the 98.5th percentile on tests of general intellectual ability, tapping into verbal, mathematical and spatial abilities, and emphasising abstract thinking, memory, analysis and generalising conclusions (Special programs for gifted students, 2011).

The main difference lies in the following. In Israel since 1968 one of the aims of the educational system has been to close socio-economic gaps in Israeli society, and heterogeneity of classes has been one of the main means for achieving it (Kashti et al., 2001), while in Hong Kong the sense of equity in school standards is very weak, even though the outcry for fairness and justice ranks high in the political arena for almost all other social issues (Cheng, 2008).

Table 1 summarises the differences between gifted education in Israel and in Hong Kong.

Implications

This paper has discussed the similarities and differences between the education of Hong Kong and Israel, especially in relation to gifted education. On the one hand, Hong Kong and Israel share some important aspects regarding cultural-traditional issues as well as geopolitical, economical, and historical issues. On the other

hand, these two regions have distinctive differences between their educational systems and students' academic performance.

Traditionally, both Hong Kong and Israel pay much attention to education and students' academic achievements. Data indicate that Hong Kong has been enjoying a high level of academic achievements among its students over the decades, while Israel students' achievements have been much lower compared to that of Hong Kong and many other countries (e.g. David, 2008). This may indicate that the full identification of giftedness, as has been the Israeli case (David, 2012b), the fact that the Israeli Ministry of Education is the only one with a department for gifted education (Freeman et al., 2010), and the investment of significant amount of money for gifted education has very little to do with the actual achievements of any population.

It would have been expected that in PISA: OECD Programme for International Student Assessment, and TIMSS: The *Trends in International Mathematics and Science Study at least 5%* of Israeli students, those who are defined by the ministry of education as gifted or excellent (Nurturing of excellent students, 2010), would score at percentile 95 of the international achievements. However, that has not been the case. In the last 15 years, the rate of Israeli students reaching percentile 95 of the international achievements has never reached 5%.

The achievement of students belonging to percentile 95, those who belonged to the 'natural reservoir' of gifted students, were the lowest in Israel compared to all other developed countries in 1999. Only in the following developing countries – Turkey, Jordan, Macedonia, Indonesia, Chile, the Philippines, Morocco, and South Africa – percentile 95 students had a lower mean grade (Mullis et al., 2000). Only 5% of the Israeli students reached the top 10% benchmark of the math achievements in the TIMSS 1999 (Mullis et al., 2000).

In PISA 2006, although Israel scored third among all 57 examined countries in within-school variance, namely achievement gaps (OECD, 2007, Figure 5), unlike the two other countries with a similar level of inequity – New Zealand with 4.0% and the US with 1.5% – only 0.8% of the Israeli students reached level 6 in science achievements (Mullis et al., 2000). That means that the reservoir of excellent students, many of whom must have been gifted, is about one fifth of that in New Zealand, half of that of the US, and practically smaller than in all developed as

well as many developing countries (Mullis et al., 2000).

In the TIMSS 2007 only 4% of grade 8 Israeli students reached the advanced benchmark – 625 points – in mathematics. All other European and non-European countries had higher rates of students at this level (Mullis et al., 2008). In that

year the Israeli sample included less than the 90% minimal requirement, and thus it is likely that the actual situation was much worse, as the ‘weak’ schools were excluded by the headmasters refusing to participate (Mullis et al., 2000). In the PISA 2009 math exam the top 5% Israeli students scored just 615, much lower than the international average (OECD, 2010).

Table 1. A concise comparison of gifted education in Israel and Hong Kong

	Hong Kong	Israel
Year of preparing the first program	1990: the government Education Commission Report No.4 (Education Commission, 1990) in Hong Kong launched an initial blueprint for the development and implementation of gifted ed.	No academic preparation
Accompanying guidelines, and research	1. 1992-1994, focused on adaptation of assessment tools. 2. 1993-1995, focused on the distribution of academically gifted and talented students in local primary schools.	1995: The ministry of Education and the Szold Institute first publish "Guidelines for a Special Curriculum for Gifted Students in Enrichment Magnet Centers" (Zorman & Rachmel, 1995)
Qualifications of the researchers	A team of academics from several local universities	No longitudinal study has ever been conducted.
Qualifications of the assessment battery formers	Educational psychologists.	No data. The Szold Institute has been responsible of the giftedness exams since 1972 and only the Institutes staff member have access to any data regarding giftedness identification.
Year of starting the first classes	1994	1973 ¹
No. of programs	19 primary schools (over 200 schools joined the HKAGE gifted program in 2010)	2 schools
Type of giftedness	A broad definition of gifted children, described as children with exceptional achievement or potential in a diverse range of areas: high IQ, aptitudes, cognitive-, artistic- and physical performance.	cognitive
Teachers' participation in identification process	Behavioral Characteristics Checklist for teachers' use in identifying gifted and talented children.	Teachers recommend 15% of 2nd- or 3rd-grade students to take the Szold exams. Teachers have no influence on the final decision regarding participating in a gifted program.
Parents' participation in identification process	Behavioral Characteristics Checklist for parents' use in identifying gifted and talented children.	None. When a child is not entitled to gifted education parents might pay for an extra exam in the next year.
Follow-up, evaluation and reflection	In 1994-1997, educational psychologists from Education Bureau paid regular visits to the schools with the aim to provide various support, including curriculum development, student selection, program planning, and teacher training. The 1997-1998 evaluation Report: program had produced positive changes to the identified gifted students AND to their classmates.	none
Major principles advocated in the gifted education policy	1. Nurturing multiple intelligence; 2. part of quality education; 3 a broad definition; 4. thinking and creativity abilities; 5. multiple educational activities; and 6. compile resources collected from educational parties/bodies as support to schools.	1. Developing specific skills and abilities in various talent areas, in line with individual needs and interests; 2. Enhancing the ability to consume information critically and effectively; 3. Strengthening the tendency toward strategic thinking; 4. Encouraging divergent and inter-

¹In December 1973 six classes for the gifted opened in two schools: three at the Graetz elementary school in Tel Aviv, and three at the Leo Baeck school in Haifa, each for third, fourth, and fifth graders (Bitan, 1992).

		disciplinary thinking; 5. Developing the ability to cope with uncertainty and deal with complex problems; 6. Enhancing the ability to produce knowledge in various fields of interest; 7. From the social aspect, the goals include: Enhancing moral decision making, Developing awareness of moral and social dilemmas, Strengthening sensitivity toward others, Developing the ability to work in teams, Accepting the need for autonomy, while maintaining reasonable limits for freedom, Developing social interest and commitment to society, . 8. From the personality aspects, the goals include: Developing persistence in performing tasks and postponing satisfaction., Enhancing commitment to tasks, Encouraging originality, Enhancing curiosity, Encouraging daring to express unusual, out of the way ideas, Enhancing personal initiative, Developing competency. ²		
Type of tests	Torrance test of Creative Thinking		The Henrietta Szold test for 3 rd , 4 th or 6 th graders. ³	
Pilot program	2 modes 3-year "Pilot School-based Program (SBP), commenced in September 1994 in 19 primary schools.		None	
Modes of education for gifted students	program	Target population	program	Target population
	1. School-based whole-class approach	Students with outstanding performance in academic subjects	1. Pull-out morning or afternoon programs	Percentile 97 students
	2. School-based pull-out programs	Students with outstanding performance in specific domains	2. Pull-out morning enrichment program or gifted classes ⁴	Percentile 98.5 students
3. Off-site support	Exceptionally gifted students			
Opportunity for choice	no		no	
Core areas of students' development	1. Higher order thinking skills, 2. Creativity, 3. Personal-social competency			
Equal opportunity or elitism?	equal opportunity: "failing" in one examination does not prevent from participation in all gifted programs		elitism	
Teachers' participation	All schools teachers must be aware of the needs of gifted and talented students		no	
No. entitled to gifted educ			~35,000	
No. receiving gifted educ			~11,500	
Responsible for kind of special gifted educ	The government		The Ministry of Education and district and municipality officials. ⁵	

²Summarised in Rachmel & Zorman (2003).

³The only data regarding the content of the test can be obtained from the Polotzky (1989) study, where she mentioned that in the first 15 years of identification for giftedness the exams consisted of three parts: verbal abilities, math-logical abilities, and general knowledge. The last part has been omitted in the nineties.

⁴Bitan, 1992. The decision which option to offer gifted students in a certain locale is a joint decision made by the Ministry of Education and district and municipality officials.

⁵Table 3: Population of localities numbering above 2,000 residents and other rural population on 31/12/2008 (Statistics, Israel, 2009).

⁶Bitan, 1992. The decision which option to offer gifted students in a certain locale is a joint decision made by the Ministry of Education and district and municipality officials.

We can thus conclude that the assumption that full identification of the gifted, as has been the case in Israel, would have contributed, if not to the national achievements, at least to the achievements of the upper-rate students, among whom the gifted should have been included, is incorrect.

Summary and conclusions

One of the main criticisms against the two most famous longitudinal studies of giftedness, that of the 1444 'original' Terman children and the 'additional' 84 (altogether: 856 males and 672 females) starting in 1921, when their average age was 10, and studied until the end of the 20th century (Burks et al., 1930; Holahan, & Sears, 1995; Janos, 1987; Oden, 1968; Seagoe, 1975; Sears, 1977, 1984; Sears & Barbee, 1975; Terman, 1925, 1930, 1954a, 1954b, 1959; Terman & Oden, 1935, 1947, 1951, 1954; Terman et al., 1990), is that the children had not materialised their giftedness. They had disappointing achievements in comparison to what could have been expected from their very high inborn abilities and nurturing. None of the gifted identified by Terman won the Nobel Prize, but two of the children rejected by Terman as unsuitable did so. William Bradford Shockley won the 1956 Nobel Prize in Physics, and Luis Walter Alvarez won the same prize in 1968 (David, 2012b).

The Terman longitudinal research has shown that there is no way to 'produce' Nobel Prize winners. But even if it had been possible, the question whether it is socially, psychologically, morally, or economically 'right' is quite unclear. However, If we look at the actual achievement of the two similar-in-size populations of Israel and Hong Kong, a huge difference is apparent. Israel has won no less than 6 Nobel Prizes for Science in the last decade (Berman, 2011), while Hong Kong has won none. Israel is a main player in the world for advanced technology (Buchwald, 2008; De Fontenay, & Carmel, 2004), while Hong Kong is not. But that has nothing to do with gifted education. There are many other explanations for this phenomenon, the most popular being Kanazawa's (2006). He argues that because of cultural, traditional and social reasons, Asians have not made contributions to human science and culture as would have been expected by their high abilities, willingness to dedicate themselves to hard work and their valuing of education and knowledge. On the other hand, Jews have always contributed to the world far beyond their rate in any population (e.g. Berman, 2011; David, 2012b).

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