

## **An Examination of Assessment and Identification Procedures for Gifted Students from Ethnic Minority Backgrounds in Hong Kong**

### **Abstract**

A considerable body of work has suggested that ethnic minority groups are underrepresented within gifted education in many countries around the world. This has largely been focused in Western nations, although there has been much written about gifted education in the context of Hong Kong. It is generally accepted that appropriate assessment and identification procedures are a core element within gifted education, yet there has been less focus on how suitable these procedures are for ethnic minorities. In a location that has branded itself as “Asia’s World City,” increasing studies have identified fairly major systemic problems resulting in underachievement from ethnic minority students. Hong Kong accepts a broad definition of giftedness and, in many ways, shows its commitment to inclusive education and equal opportunity. However, an examination of how this broad conception of giftedness has given rise to identification procedures which are largely inappropriate for students from ethnic minority backgrounds is presented.

### **Introduction**

The assessment and identification of gifted and talented students has seen a significant rise in interest for academics in recent years to the extent that it has become the most common topic within the field to be published (Cao et al., 2017, Brown et al., 2005). Historically the identification of gifted students has been “dominated” (Brown et al., 2005, Frasier, 2005) by test scores garnered from a range of ability and intelligence tests like the Stanford-Binet and Wechsler tests. As conceptions of intelligence have expanded considerably over the past half century due to theories like Multiple Intelligences (Gardner, 2011) alongside conceptions of giftedness (Renzulli, 1986), the actual process of identification of gifted students has expanded with it. While conceptions of giftedness based in theories like Multiple Intelligences or Renzulli’s Three-Ring model (Renzulli, 1986) increasingly present a broader and more egalitarian view, the methods of identification utilised by educational systems have not always reflected this (Ford, 1998, Harris & Ford, 1999). Even in educational contexts like Hong Kong which, like many other East Asian societies, have been consistently ranked highly in international studies (Ho, 2017) employ narrow identification procedures for giftedness where “high IQ of 130 or above is frequently employed as the sole criterion” (Chan, 2000). Certainly, the Hong Kong government has officially espoused a progressive stance on giftedness being considered with a “broad definition using multiple criteria” (Introduction of Gifted Education in Hong Kong, 2017) and there is literature to suggest a strong basis in empirical research for the methods employed. What is less clear, however, is to what extent this

broad definition has been followed by assessment and identification procedures which reflect the needs of learners not necessarily from a Chinese background. With this context in mind, this literature review proposes two questions;

- 1) What is the research basis behind the most popular procedures for identification of giftedness in Hong Kong?
- 2) How appropriately have these procedures been designed and implemented to cater for ethnic minorities?

### *Conceptions of giftedness and Hong Kong*

The conception of giftedness in Hong Kong is based in Multiple Intelligence Theory (Introduction of Gifted Education in Hong Kong, 2017, Chan & Yuen, 2014) and recognises that giftedness should be treated broadly. It is also similar to Renzulli's Three-Ring Model (Renzulli, 1986) in that it considers creativity a key element in gifted education (Chan & Yuen, 2014). Whilst not formally utilising Renzulli's Talent Pool strategy (Renzulli, 2005), the methods by which students are identified as gifted are somewhat similar in that a mixed-methods, multiple criteria approach consisting of ability tests and nominations are used. In this way Hong Kong is a relatively progressive educational context in that both the conception and methods of identifying giftedness are theoretically complementary. That is, the mixed-methods, multiple criteria approach should serve to minimise identification errors (Runco, 1997) and reflect the "myriad ways in which children's gifts can be expressed" (Frasier, 2005). Frasier (2005) also suggests that there is "wide agreement" that multiple criteria should inform the basis of gifted identification procedures regardless of cultural background, wealth or language. With regards to Hong Kong this is a prescient judgement as, despite a recognition that all students should be catered for, emphasis on language and systemic discrimination mean the procedures for gifted identification often fall short of their egalitarian aims.

### *Giftedness, Ethnic Minorities and Hong Kong*

The underrepresentation of minority students has been widely written about and documented in the West, particularly in the United States where it has been suggested that minority students are underrepresented in gifted programs by as much as 70% (Harris & Ford, 1999). However, actual recommendations to improve this situation as a result of empirical studies have been less forthcoming (Ford, 1998). The outcomes of this lack of access to resources and programmes which serve to nurture nascent abilities are not understated in the literature, with minority students in this situation being described by Harris & Ford (1999) as "doomed to negative school outcomes." Several

causal factors have been suggested by studies including the quality of education (Ford, 1999), inappropriate or discriminatory identification procedures (Lakin & Peters, 2016) and systemic biases within the education system (Callahan, 2005). With regards to Hong the ability to speak Cantonese or Chinese is also identified as a critical factor (Kapai, 2015, Kapai & Singh, 2018, Bhowmik & Kennedy, 2016), with studies showing clear links between self-efficacy in Chinese being a strong predictor of adolescent educational success (Cheung et al., 2015). The extent to which students from ethnic minority backgrounds face systemic discrimination through the Hong Kong educational system has been increasingly reported upon in recent years (Kapai, 2015, Kapai & Singh, 2018, Bhowmik & Kennedy, 2016). Whilst wider considerations regarding equal access to high quality education are outside the scope of this paper and have been considered elsewhere, it is worth noting that research and implementations of procedures for the identification of gifted students have been conducted within this culture of educational discrimination.

Hong Kong saw an overall 70% increase in ethnic minorities between 2006 and 2016, with a 120% increase in the number whom were born here in the same time period (Census and Statistics Department HKSAR, 2016). Of these, 64.3% aged 5-14 were reported as able to read in Chinese, although to what level is unclear. 30.3% were reported as speaking Cantonese at home, with a higher proportion speaking English at 45.6%. These low levels of native linguistic ability are considered a root cause of student underachievement, compounded by the emphasis on competence in Cantonese and English within the school system (Bhowmik & Kennedy, 2016). The effects of this can be seen in school attendance rates being slightly lower than the whole population, most noticeably in the 18-24 age bracket where 29.2% were in education compared to 51.8% of the overall population. While the egalitarian aims of the Hong Kong Education Bureau are reflected in the objective of providing a school experience which “meets the different needs of our students” (Overview on Secondary Education, n.d.), there has been criticism of effective segregation within the school system (Kapai, 2015, Kapai & Singh, 2018). Additionally, despite Hong Kong’s adherence to a broad definition of giftedness, as previously mentioned, the criticisms of identification procedures remaining largely reliant on ability test scores (Chan, 2000) provides an additional barrier to entry for students from minority backgrounds.

### **Identification procedures**

#### *HK-WISC*

Perhaps the most popular ability test in Hong Kong is the HK-WISC, or Hong Kong Wechsler Intelligence Scale for Children (Chan, 2000). The test has a long history in the West since in

publishing in 1949 and the Hong Kong variant was developed initially in the late 1970s. The test is somewhat relied upon to uphold a broad conception of giftedness in that students with “high general intellectual ability” will be “reliably identified” (Chan, 2000). The norming of ability tests is somewhat important to ensure that students are given equal opportunity in revealing their gifts. In this way testing has some benefit over nominations from teachers in that judgements may be clouded by the population of students they are working with (Davis et al., 2011). The HK-WISC was translated into Cantonese and normed against 1,100 children in Hong Kong aged 5-15 (Lee & Lam, 1988). This is not unusual in the sense that the test has been translated and made appropriate for many different countries. The standardised sample group provided controls for “age, sex, type of school, level of education, educational area, and the proportion of children not attending school in 1978” (Lee & Lam, 1988). This sampling, however, mentions nothing of ethnic minority groups within in the population. Given that the HK-WISC was described as “basically a modification...for use in Cantonese,” (Lee & Lam, 1988), it would appear that as an instrument the HK-WISC is lacking for those that do not speak Cantonese at a native level. Given that the HK-WISC was born of concern for potentially inaccurate comparisons with American norms (Chan, 1984), it seems ironic that the tests have not been revisited given the changing norms of the population within Hong Kong since the 1980s. Whilst it is too strong to suggest that this test is necessarily inappropriate for ethnic minority groups in Hong Kong based on language alone, it does seem representative of a general trend in the literature to focus exclusively on ethnically Chinese students when developing norms. While this does not exclude ethnic minorities completely, it surely suggests that the identification procedures like the HK-WISC may need further study to ascertain their suitability for the aforementioned group. This is not without precedent as traditional instruments have increasingly become subject to review for their suitability in identifying minority groups (Baldwin 2005, Ford 1998). Some literature also suggests that cultural bias renders ability tests normed on a homogenous majority population less valid and reliable for students from minority backgrounds (Samada 1989, Ford 1998).

Fortunately, in the face of this uncertainty in the literature, Hong Kong utilises other methods of identification for giftedness. Ravens Standard Progressive Matrices (SPM) is also in wide usage in Hong Kong, although again it has been standardised and normed for the region (Chan, 2000). Studies have previously found this instrument to be useful in identifying giftedness in minority students which other instruments missed (Mills & Tissot, 2005), largely due to the focus on nonverbal reasoning. The work of Naglieri & Ford (2003) stresses that verbal and nonverbal reasoning are not two distinct ways of thinking, but rather two methods of measuring intellectual ability (Davis et al, 2011). This lack of bias against linguistic ability saw SPM utilised by Stone, Wong & Lo (2000) for this

very reason in Hong Kong. The irony of this study is that it suggested high levels of ability in Hong Kong students despite low levels of proficiency in English and attendance at English medium of instruction institutions. Perhaps this study can give some implied insight into the suitability of certain ability tests for ethnic minority groups struggling with verbal skills as there is little in the literature specifically addressing this.

### *Giftedness and Creativity*

Creativity is suggested as having “unanimous consensus” (Cheung et al., 2004) in its intrinsic links to gifted education and conceptions of giftedness. Hong Kong recognises this in the frequent use of instruments that measure divergent thinking. Rudowicz et al. (1995) cite several studies which show that these tests are useful in identifying the “Potential for creative thought,” and “identifying children with exceptional creative abilities.” (Runco, 1991, Ochse, 1990, Tegano, Moran & Godwin, 1986). The most popular of these are the Torrance Tests of Creative Thinking and the Wallach-Kogan Creativity Tests. While criticism of the TTCT being influenced by motivation and the conditions under which tests are administered (Bamber, 1973), it has been judged as a “good measure” (Kim, 2006) when used appropriately. Rudowicz et al. (1995) note that Torrance believed his tests to be free from biases associated with culture, race or socio-economic status. Their study in Hong Kong sampled a homogenous group of 30 students who were all “native Cantonese-speaking Chinese” (Rudowicz et al., 1995). The study is interesting in that it concludes that the Hong Kong student participants compared favourably with their international counterparts and that the Chinese version of the TTCT they used was valid and reliable as an instrument. That said, its homogenous sampling does not necessarily mean the instrument maintains its validity when used with students from other backgrounds. This is mirrored in a later study into translating and norming the WKCT (Rudowicz, 2004), although this addressed the sampling method directly in that this was supposed to be a Chinese-specific investigation from the outset.

It is acknowledged by Cheung et al. (2004) that there is much work to do in the field of creativity research with regards to Asian societies, with the suggestion that a main contributory factor is the lack of standardised tests. The standardisation process is made more difficult with the suggestion that creativity is culture-specific (Michael & Wright 1989, Cheung et al., 2004) and studies into cultural aspects of creativity have shown both overlaps and divergences which have not yet been tested empirically against existing instruments (Rudowicz, 2004). The extent to which the cultures of the ethnic minority population of Hong Kong diverges from the majority has not been fully realised

in the literature, thus it is not fully possible to make an empirically valid judgement on the suitability of these creativity tests for this group in identifying creative giftedness.

### *Informal measures*

Alternative methods of identifying giftedness are a central point of modern conceptions of giftedness. Indeed, the work of educational psychologists like Joseph Renzulli has given rise to a much expanded Talent Pool approach (Renzulli, 2005) which seeks to identify some 15-20% of a given population, rather than the 3-5% identified by a more “traditional” (Davis et al., 2011) method. This approach is described as “the most popular programming model in the world” (Davis et al., Renzulli, 2005) and seeks to be far more generous in its approach. That is, this method looks to identification via self-selection, teacher nominations and other conceptions of achievement. In many ways this is reflected in Hong Kong (Chan & Yuen, 2014), although not necessarily to the extent of an implementation of Renzulli’s Schoolwide Enrichment Model (Renzulli, 2005) which gives a basis for gifted provisions on a systemic level. Value is placed in “informal measures” (Chan, 2000) like self, parental or teacher nomination. While this model has found favour in many educational contexts, particularly the USA, it has several deficiencies when looked at in a Hong Kong context.

Firstly, while teacher nominations are an important tool for the identification of giftedness, this works on the assumption of a somewhat equal educational playing field which, unfortunately, Hong Kong is not. This is particularly the case for those that are on roll at former designated schools, a now defunct attempt to have students whom struggled with Chinese educated separately from ethnic majority Chinese students in order that they were able to learn “at a different pace” (Kapai, 2015). While the schools are now disbanded, ethnic minorities still attend such institutions. Lack of teacher training, inadequate curricula and discriminatory attitudes from staff (Ku et al, 2005) have played their part to make this method of gifted identification extremely unlikely. With regards to teacher training and inadequate curricula the Zubin Foundation provides the example of Arjun Singh, a gifted child who, even when identified as gifted, found his school had a complete lack of curricula for him in English. No schools could be found to nurture his gifts and for two years he was home schooled, by which time the Education Bureau deigned that he should not have withdrawn in the first place and his parents should have had him attend a fee-paying institution (Kapai, 2015). It is hard to see how parent nominations would be particularly forthcoming in this environment, and there is evidence to suggest that parents are largely unaware of the gap in knowledge about the school system they have when compared to their Chinese counterparts (Kapai, 2015).

With regard to self-nomination there would require a certain level of self-efficacy and self-concept for students. The literature once again points to this being an inadequate identification method for ethnic minority students given the frequently low levels of self-efficacy brought on by “feeling excluded” (Bhowmik & Kennedy, 2016). This is combined by a common practice of assessing scores in Mathematics, Chinese and English as a “decisive factor” (Bhowmik & Kennedy, 2016) in determining whether students get promoted to the next academic year. It was found by Bhowmik & Kennedy that students were given the option of either repeating the year or getting “kicked out,” which typically just results in a high dropout rate. In short, the systemic discrimination of minority groups within the educational system is not particularly conducive to the identification of gifted students via nominations.

## **Conclusion**

Whilst not explicitly talking about ethnic minority students, Chan stresses the “need for evaluation of selection criteria and identification procedures” (Chan, 2000) with regards to giftedness. Given that the literature clearly points to a failing in the Hong Kong education systems approach to its ethnic minority students through largely inappropriate identification procedures, the aforementioned view seems somewhat apt. The literature points to regular adaptations of western conceptions and identification procedures to suit Chinese learners, but little research or provision into minority groups. Certainly, Hong Kong recognises that all students have a right to quality education and, in many ways, has adopted a progressive stance towards giftedness. Furthermore, it is common in the literature to see an acceptance in the lack of research conducted within this area in Hong Kong, especially when compared to the West. That said, despite recognition that ethnic minorities are underrepresented in gifted programmes, it is hard to conclude anything other than that the current procedures for identification of giftedness in Hong Kong are based in research which excludes minority groups and is questionably suitable in implementation.

**2976 words**

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