

5-2014

Culturally Diverse and Underserved Populations of Gifted Students In the United States and in Taiwan: Equitable Access to Gifted Education

Ya-ting Ho
Dominican University of California

<https://doi.org/10.33015/dominican.edu/2014.edu.13>

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Ho, Ya-ting, "Culturally Diverse and Underserved Populations of Gifted Students In the United States and in Taiwan: Equitable Access to Gifted Education" (2014). *Graduate Master's Theses, Capstones, and Culminating Projects*. 38.
<https://doi.org/10.33015/dominican.edu/2014.edu.13>

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Title Page

Culturally Diverse and Underserved Populations of Gifted Students

In the United States and in Taiwan:

Equitable Access to Gifted Education

Ya-Ting Ho

Submitted in Partial Fulfillment of the Requirements for the Degree

Master of Science in Education

School of Education and Counseling Psychology

Dominican University of California

San Rafael, CA

May 2014

Signature Sheet

This thesis, written under the direction of the candidate's thesis advisor and approved by the Chair of the Master's program, has been presented to and accepted by the Faculty of Education in partial fulfillment of the requirements for the degree of Master of Science. The content and research methodologies presented in this work represent the work of the candidate alone.

Ya-Ting Ho

Date May 1, 2014

Candidate

Madalienne Peters, Ed.D.

Date May 1, 2014

Thesis Advisor

Elizabeth Truesdell, Ph.D.

Date May 1, 2014

Program Chair

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Acknowledgments

First of all, I would like to thank Dr. Madalienne Peters who provided me with continuous support though out my thesis with patience and knowledge. Thanks Dr. Jennifer Lucko for her deep inspiration. I also would like to thank Suzanne Roybal and Cameron Duvall for teaching and assisting me with all the researching skills. Thanks to Dr. Billye Brown, Dr. Jacquelyn Urbani, and Dr. Shadi Roshandel, I have learned so much from them.

Thanks to all the teachers who participated this study. All the information they provided helped me complete this thesis, and without whom none of this would have been possible.

And of course, I could not do it without the support of my family. I would like to thank my family for always being there supporting me throughout all my academic ventures. Lastly, I want to give special thanks to Julian Chen and Julia Hsieh. Their love and support encouraged me throughout all my studies at Dominican University of California.

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Abstract

There is a continuing increase in the African American and Hispanic student populations in public schools. The students who are invited to gifted programs are overwhelmingly White. This is the situation in schools in the United States and also in Taiwan. Misunderstanding or unawareness of culture difference among educators might contribute to underrepresentation of minority students in gifted programs.

The research literature reviewed indicates that a deficit in orientation, ineffective teacher referral policies, and the use of culturally biased assessments are the major reasons responsible for low rates of identification for gifted minority students. The purpose of this thesis is to explore more effective strategies to identify, or to increase awareness of gifted minority students and provide them equitable access to gifted education.

The researcher interviewed six teachers of the gifted program to collect information in the United States and in Taiwan related to underrepresented minority students in gifted education programs. According to the results, the researcher generalized four key reasons of disparity in the gifted program: definition of giftedness, family factors, identification procedure and instruments, and curriculum and instruction.

Chapter 1 Introduction

In the past two decades, the government policy opening up cross-border interactions in Taiwan has resulted in the increasing trend of cross-border marriage, or the population of so-called "foreign brides." Foreign brides include female immigrants from China or Southeast Asian countries, such as Indonesia, Vietnam, the Philippines and Malaysia, and they are called "new immigrants" now.

The issue of new immigrants has gradually drawn attention in Taiwan. There are significant language and cultural differences between these new immigrants and Taiwan people. These differences cause problems in social adaptation, language learning and new immigrant children's school adjustment and academic issues. Additionally, the number of new immigrant children in Taiwan is also significantly increasing every year. However, the number of new immigrant children in gifted education program is disproportionate. In one elementary school where I used to substitute, the new immigrant students accounted for 17% of the total school population, but they only made up 3% of the gifted student population in 2012-2013 school year.

When I took "Cultural Pluralism" class at Dominican University, I found the minority students in the US are disproportionate in gifted education as well. Therefore, I was wondering what reasons caused this disparity.

Statement of Problem

Schools across the United States service increasingly diverse student populations while the students who receive gifted education are disproportionately represented. That is, the

students who are invited to the gifted programs are overwhelmingly White. School systems need to provide all students not just with an equal education but with an equitable education that may offer extra and necessary support to help students to succeed and achieve equality.

Purpose Statement

The purpose of this study is to identify strategies that increase awareness of gifted minority students and provide them equitable access to gifted education. This study addresses the disproportionality of diverse student populations in gifted education programs.

Research Question

What is the difficult position minority students face in school systems? What are teachers' or educators' perceptions of the status of disproportionality in gifted education? What are the effective ways of identifying or becoming aware of gifted minority students in order to provide these students equitable access to gifted education?

Theoretical Rationale

In the 1950s and 1960s, the United States Supreme Court decision in *Brown v. Board of Education of Topeka* (Rowley & Wright, 2011) resulted in desegregation of public schools. *The Civil Rights Movement* brought national awareness of racial inequities (Smith & Tyler, 2013). The issue of racial inequality in education has constantly been addressed through government policy in an attempt to address the problem of discrimination in the US school

system. The most well-known government attempt is the *No Child Left Behind Act* (NCLB) of 2001 (Rowley & Wright, 2011).

The major objective of NCLB is to guarantee that all students, including student groups based on poverty, race and ethnicity, disability and limited English proficiency, achieve important learning outcomes when they are educated in safe school settings by well-trained educators. Furthermore, schools have to reduce academic achievement gaps between students of color and their White counterparts and provide a quality education.

Assumptions

According to shifts in demographic trends, student populations in US schools are increasingly diverse. However, the students who are provided gifted education are overwhelmingly White. Arguably, ineffective teacher referral policies and the use of culturally biased assessments might be the major reasons for disproportion in gifted education program.

While we extol the diversity of the United States, many students of color and immigrants experience discrimination and unsatisfactory educational outcomes. Schools should have a raised awareness of the need to acknowledge and address issues of diversity. With more cultural awareness of teachers who provide culturally responsive instruction that suited students' need and the use of non-cultural biased assessments, diverse student populations are more likely to have equitable access to educational opportunities for success.

Background and Need

Lovett (2011) illustrates an African American male student who was placed in a gifted class in fifth grade but refused to go to class. Due to lack of ethnic or cultural peers, he

asserted that he felt alone, did not belong, and would like to be in the regular class with his friends. In addition, he struggled with being placed in the gifted class where he thought the coursework was too hard.

The study indicates that improving the identification and placement of underrepresented minorities in gifted programs is necessary, but it does not mean that we can automatically generate equitable access, participation, or achievement for these diverse gifted students. Gifted students are not able to develop their educational potential without suitable help (Siemer, 2009). Additional assistances and supports should be utilized to differentiate instruction.

Summary

With the increasing diversity of the student population, not only multiple assessments, but also differentiated instruction should be provided to meet diverse needs within the gifted populations. The purpose of this study is to identify better approaches to screen gifted minority students, provide them differentiated instructions and sufficient scaffolding within gifted education programs.

Chapter 2 Review of the Literature

Introduction

This section is an examination of the research literature on diverse gifted populations. Information was gathered from academic library searches using online resources. Research information is organized in the following categories: Historical Context, Review of the Academic Research, Statistical Information, Internet Sources, and Interview with an Expert. In Review of the Academic Research section, Orientation, Referral Policies, Identification and Assessment, and Instruction and Curriculum of gifted education are described separately.

Historical Context

In 1974, the Office of Gifted and Talented was given official status in the United States Office of Education. However, the office was closed in 1981. As a result, the funding was cut, and incentives to study gifted education disappeared (Siemer, 2009).

In 1988, the Jacob Javits Gifted and Talented Students Education Act was first passed by Congress as part of the Elementary and Secondary Education Act. It was the only federal program directly supporting the needs of gifted and talented students in the United States. The Javits Act focused resources on identifying and serving student groups who are underrepresented in gifted programs, particularly those who are socioeconomic status (SES) disadvantaged, limited-English proficient, and disabled students, to close gaps in achievement and to create equal educational opportunities for all students (National Association for Gifted Children [NAGC], 2008).

In 2002, the Javits program was included in the NCLB Act. The focus of the Act is to bring all students to academic proficiency and reduce the achievement gap by 2014; as a result, school districts tend to use their limited funding and resources on helping low-performing students. However, it is hurtful to gifted students who need a more challenging environment to develop their potential (Robertson, Pfeiffer, & Taylor, 2011).

Review of Academic Research

In this section, orientation of giftedness, referral policies, identification and assessment, and instruction and curriculum of gifted education are described. This information provides a context for the study.

Orientation of Giftedness

The concept of giftedness has been used as a label to describe and recognize those students who perform extraordinarily in some domains valued within their respective culture. The definition of giftedness varies by society (Pfeiffer, 2012). Placement decisions to the gifted and talented education (GATE) program are made in order to offer services to students who meet certain academic criteria. Educators' knowledge and attitudes regarding giftedness would effect what services are delivered to which specific students.

Giftedness has been narrowly conceptualized for a long time in terms of a measure of high IQ or other test scores. McClain and Pfeiffer (as cited in Pfeiffer, 2012) found that in the majority of states in the US, educators still generally rely on IQ test scores to define giftedness. Schorth and Helfer (2009) surveyed 900 public school educators regarding their explanations

of giftedness. Educators thought all traditional and well-accepted conceptions of giftedness were valid, yet they did not tend to advocate for conceptions involving talents in less-traditional areas.

The results from Schorth and Helfer (2009) suggested that there are various characteristics favored to screen academically gifted and talented students, and many educators prefer identification methods similar to those applied in the Renzulli's and Sternberg's models. The former considers three factors as significant for the development of gifted behavior, which are above average ability, creativity, and task commitment. The latter developed an alternative intelligence model, comprising three elements of thinking processes that are analytical thinking, creative thinking, and practical thinking. Furthermore, the results also showed the educators' attitudes toward Gardner's multiple intelligence theory (MI). Multiple intelligence theory provides a broader definition of giftedness, and suggests that there are at least nine types of intelligences: linguistic, logical-mathematical, musical, kinesthetic, spatial, interpersonal, intrapersonal, naturalistic, and existential. MI theory indicates that each student possesses a unique blend of all the intelligences. That is, every student should be challenged; the bar should be raised for all students. However, kinesthetic intelligence, one of the multiple intelligences, was the least accepted of all definitions provided in the survey.

Referral Policies

Not only student test performance, but also classroom teacher recommendations to screen students who are gifted are employed in many school districts. However, the overwhelming majority of teachers are White and tend to use behavior and language cues to

identify student aptitude or potential (Pollock, 2008). “Controlling images”, which are a kind of stereotype, are still prevalent in school systems, and it may close off the possibilities for minority students to be screened as gifted. With little attention to cultural differences, it interferes with teacher ability to see gifts and talents among diverse student populations. Diverse students are easily overlooked as a result.

Robertson, Pfeiffer, and Taylor (2011) found that gifted students are the most underserved population in US and school psychologists play an important role in the identification of gifted students. They conducted a survey to investigate school psychologists’ preparation and knowledge on gifted topics. The study indicated that one third of school psychologists report little information and training in gifted screening and gifted assessment during their graduate studies. Without adequate professional development and sufficient information about giftedness, psychologists are unable to screen and identify gifted students effectively and properly, especially students with cultural differences or twice-exceptional, (students who are identified with disabilities). In addition, school psychologists rarely provide professional consultation with regular classroom teachers to plan psycho-educational interventions for gifted students.

Elhoweris, Mutua, Alsheikh, and Holloway (2005) examined the effect of students’ ethnicity on teachers’ educational decision-making and found that the student ethnicity had an effect on teachers’ referral decisions. Referral is the first step in the gifted and talented education programs. To avoid or reduce biased and inappropriate referrals to gifted programs for cultural diverse students, not only gifted education teachers but also general educators need to become more aware of cultural factors that students may have. Additionally, teachers’

training programs may need to pay attention to modify teachers' attitudes toward students from culturally diverse backgrounds.

Assessment and Identification

Identifying gifted and talented students has been a concern in education for many years. Traditional intelligence tests are usually employed to assess students who qualify as gifted. Minority bias within the referral and identification process has been ongoing and pervasive to many racial and ethnic groups (Courville & DeRouen, 2009).

Courville and DeRouen (2009) state that a gap exists between defining giftedness as multidimensional and implementing identification processes based on a broader definition. Robertson et al. (2011) also mentioned many students from minority groups are unrecognized as gifted due to limitations with traditional approaches to measure giftedness. The use of culturally biased assessments is an important reason that causes low rates of identification for gifted minority students.

Assessments for referral and identification of gifted students have traditionally been either single-language oriented or use perceptions that are reflective of the mainstream culture (Hughes, Shaunessy, Brice, Ratliff, & McHatton, 2006). The literature indicates language is the largest problem with IQ tests or their equivalents (Courville & DeRouen, 2009). Brice and Brice (2004) investigate the relationship between standardized test scores that include verbal and math two sections and teacher ratings of student abilities that include intelligence, motivation, leadership, creativity, and academic performance. The measures of abilities described above correlated much more strongly with math scores than with verbal scores when identifying gifted Hispanic students. It is known that many African American and

Hispanic students are not native English speakers or do not speak the standard dialect. It indicates the math portion of the test may be less linguistically biased. Furthermore, if a student is unfamiliar with the cultural content in a test question, the student will be less likely to respond correctly even if he or she is proficient in English. Therefore, it is critical for educators to identify which assessments work best and more appropriately for cultural minority students.

Instruction and Curriculum

There is a misconception that gifted students are able to develop their educational potential without help (Siemer, 2009). As mentioned before, increasing the identification and placement of diverse populations in gifted education programs is necessary, but it does not imply equitable access to academic success is created automatically for these diverse gifted students. Equal education means basically offering the same resources and opportunities for all students, which is not enough. Achieving educational equality involves providing an equitable education, meaning that all students must be provided the real possibility of equal outcomes (Nieto & Bode, 2012). In other words, if underrepresented minorities would like to be successful in the gifted education program, they would need support systems that address the possible gaps they might experience and meet affective needs as a result of participating in less rigorous academic settings (Donovan & Cross, 2002). Therefore, providing differentiated instruction and supplementary assistances to each gifted diverse student is essential for their rights to obtain equitable education.

Sympathizing with the pressures faced by cultural, linguistic, ethnic, and socioeconomically diverse gifted students requires that teachers are proficient at the art of

differentiation and the art of creating inclusive learning environments (Lovett, 2011). Studies suggest that students learn more, attend more regularly, and participate more actively when they can relate to curriculum by seeing themselves and their communities mirrored in it than when they do not (Pollock, 2008). In other words, it is essential that the curriculum closely connected with students' lived experiences.

Statistical Information

The public school system in the US enrolled 49.4 million students in the 2010-2011 school year. The data showed that 52.4% of the total school population was White, the remaining were students of color. There were 23% of Hispanic students and 16% of African American students within these minority groups. Additionally, approximately 11.2 million students in the US have primary languages other than English (Smith & Tyler, 2013). One fourth of California's students speak a language other than English at home. These so-called "minority" students have become the new numerical majority (California Department of Education, 2010).

According to data from US Department of Education, Office for Civil Rights, in 2006 White students comprised more than half of the total school and general population, but almost 68% of the students in gifted education program. In contrast, African American students account for [approximately] 17% of the school population but only 9% of gifted students, and Hispanic American students make up [approximately] 20% of the total school population, and they are only 12% of gifted students (Erwin & Worrell, 2012). This data indicate that minority students are disproportionately present in gifted education. In contrast

with White students, African American students and Hispanic American students are underrepresented in gifted and talented education programs.

There is a similar situation in Taiwan. In the past two decades, due to the government policy about opening up cross-border interactions, more and more Taiwan people go to China and Southeast Asia, such as Indonesia, Vietnam, the Philippines and Malaysia, to work. Many foreign workers come to Taiwan and seek employment or residence, resulting in the increasing trend of cross-border marriage, increasing the foreign spouse population every year. According to official statistics from Ministry Of Education, Taiwan (2012), there were 38.97% of the new immigrant students' father or mother from Vietnam; 36.50% from China; and 13.33% from Indonesia. The number of new immigrant children in Taiwan is increasing from 46,411 in 2003-2004 school year, which represented 1.63% of the total school population; to 203,346 in 2011-2012 school year, accounting for 9.17% the total school population. That is, there is a new immigrant child in approximately every nine students in primary school and middle school in Taiwan. However, there are significant language and culture differences between these new immigrants and Taiwan people. These differences cause problems in social adaptation, language learning, new immigrant children's school adjustment, as well as in academic areas.

The Special Education Act in Taiwan stipulated that local authorities and schools should reinforce identification procedures and counseling services for gifted students with special needs or with socio-economical and cultural disadvantages (Ministry Of Education, Taiwan, 2013). Students with cultural disadvantages include those who lack cultural stimulation or whose parents' primary languages are different from Chinese. Although there are few studies about new immigrant gifted students in Taiwan, the educators are devoted to

the study of seeking better methods to screen and identify gifted minority students and provide them the best-fit curriculum design and support.

Summary

Today, many educators tend to recognize giftedness as a talent and ability to learn and that can be found in each child (Brice & Brice, 2004). With this broad orientation of giftedness, the teachers' knowledge and attitude toward giftedness should be changed. To increase appropriate referral, awareness of students who differ in culture, language, or ability is important for success in culturally diverse school settings. Additionally, the identification instruments for gifted education should be selected and used carefully through considering students' language proficiency and cultural diverse backgrounds. Equally important, educators should be aware of gifted behaviors and characteristics in the cultural minority populations and provide them differentiated instruction in order to support all students in their education.

Chapter 3 Method

Research Approach

This study follows a non-experimental design approach. The research relies on interviews with US and Taiwan public school teachers who have experiences teaching in gifted education programs. In the study, six participants were interviewed on their perceptions of gifted and talented education and gifted minority students. The interview sessions were recorded digitally and were transcribed. Qualitative data were gathered from interviews and analyzed by the researcher after transcribed.

Ethical Standards

This research paper adheres to ethical standards in the treatment of human subjects in research as articulated by the American Psychological Association (2010). In addition, the research proposal was reviewed by the Dominican University of California Institutional Review Board for the Protection of Human Subjects (IRBPHS), approved, and assigned file number 10178.

Sample and Site

Selected based on availability, the target subjects of this research paper were gifted education teachers both in the US and in Taiwan in order to gather information regarding gifted and talents education and gifted diverse populations in these two countries. Due to the

geographic challenges, the researcher interviewed three teachers from California and three teachers from Taipei City, Taiwan public primary schools.

Access and Permissions

After IRB review and approval, the researcher contacted three gifted education program teachers each in the US and in Taiwan in order to learn more about information regarding gifted education and gifted diverse populations. To access the interviewees, gifted education teachers in California and in Taipei City, Taiwan, the interviewees were introduced by the researcher's professor and classmates.

The researcher contacted three gifted education program teachers in California through phone contact and email to ask for permission and set up the interview schedule. Additionally, the researcher also made contact with three gifted education program teachers in Taipei City, Taiwan via email to arrange for interviews.

Data Gathering Procedures

After obtaining permission for interviews, the researcher arranged the schedule for interviews. The researcher's questions are open-ended and benign in nature, and involved minimal risk. Information collected was used in summary form only. The researcher used a pseudonym when referring to the subjects' responses to ensure confidentiality.

The interview subject had the opportunity to expand upon existing research in the interviewees' field and participated in discourse relating to the field of gifted education and providing diverse populations equitable access to gifted education. The interview questions were reviewed by the researcher's professor and experts in the gifted education field. They

made sure that the breadth and appropriateness of the content was maintained. The interview questions included following.

- (1) What's your definition of giftedness?
- (2) Have you noticed there is a disproportionate situation in gifted education program? In your opinion, what are the possible reasons for the situation?
- (3) Do you think the funding and resources for gifted education are sufficient?
- (4) What kind of identification procedure is used in the gifted field in your school district? Do you think the procedure is equitable for gifted diverse students? Why or why not?
- (5) What kind of assessment tool is used in the gifted field in your school district? Do you think the assessment tool is equitable for gifted diverse students? Why or why not?
- (6) What useful strategies and activities have you ever employed to differentiate instruction in gifted classroom (especially for gifted diverse students)?
- (7) As a teacher, what kind of extra training or professional development might be helpful on supporting you to assist gifted diverse students to reach their potential?
- (8) What are the biggest challenges you have encountered in gifted classroom?

Chapter 4 Findings

Description of Site, Individuals, Data

The researcher interviewed three gifted education program teachers each in California, USA and in Taipei City, Taiwan and gathered information regarding gifted education and gifted diverse populations in these two countries. One of the interviewees in this study teaches in the middle school and the others are all gifted education program teachers in primary schools. All the interviewees in Taiwan hold a master's degree, two of them have 5 years teaching experience and another one has 10 years teaching experience. One interviewee in the US indicated that this is his second year of teaching, one has 10 years, and the other one has 12 years teaching experience in GATE.

Information collected was used in summary form only. The researcher used a pseudonym when referring to the subjects' responses to make sure that confidentiality is maintained. Therefore, the researcher coded all the interview results to make them more accessible. For example, (US01_02) represents that this is the second response from the first interviewee in the US; (TW03_04) indicates that this is the fourth response from the third interviewee in Taiwan.

The GATE programs in which the interviewees have been teaching have individual situations regarding student composition. As one interviewee said, *"I think that the sampling at my school would be biased or skewed because we draw students mainly from our specific surrounding neighborhoods, so there's already a socio-economic bias which could possibly mean a cultural bias, as well. We have a large neighborhood concentration of Korean families and Spanish-speaking families. In my classroom I have 50% Asian, 26.92% White,*

15.38% Hispanic, and 7.69% Filipino. None are considered socioeconomically disadvantaged (US01_02).” Another interviewee stated, *“There are only two new immigrant gifted students in our school, and unlike other immigrant students’ parents, the educational degree and socio-economic status of these two students’ parents are high (TW01_02).*” The minority students’ backgrounds are diverse, so we cannot infer a conclusion from the interview results; yet the interview results do provide information to come up with suggestions and strategies that help mitigate the disproportionate situation in GATE program.

Themes

Interview results were read by the researcher several times and coded. The results provided the researcher with information to organize and analyze responses. The researcher synthesized the interview results that related to this study into six categories: definition of giftedness, funding and resources, family factors, identification procedure and instruments, curriculum and differentiation of instruction, and educator professional development. The interview results were organized based on these six categories.

Definition of giftedness

Placement decisions for gifted students are made to provide special support to students who meet certain criteria. Teachers' knowledge and attitude toward giftedness affect which students are served in GATE. According to the interview results, teachers have different perspectives regarding giftedness.

“To have an inquiring mind and an intrinsic drive to learn-and-do is a wonderful gift...” (US01_01)

“I agree with Renzulli's definition of giftedness: Above average ability, creativity, and task commitment.” (TW01_01)

“I think giftedness means the capability or performance in one or more specific areas is superior compared to children of the same age, and they have special needs in education to meet their ability and satisfy their desire to learn.” (TW02_01)

“Literally, giftedness refers to outstanding competence and I agree with the concept of multiple intelligence theory proposed by Howard Gardner in the early 1980s. Each student has his or her strengths that teachers should try to find out and appreciate.” (TW03_01)

“...can make connections to educational concepts without being explicitly taught.” (US02_01)

The researcher synthesized the interview results and identified that many teachers agree with the concept that gifted students have superior aptitude. They are more likely to have an intrinsic drive to learn. They have the capability of learning independently. Additionally, some teachers believe that every student has different or more dominant intelligences that are used frequently to maximize their learning outcomes. This would consequently provide them the opportunity to learn in ways which are more productive to their unique minds. The theory of multiple intelligences expands the horizon of available teaching and learning tools beyond the conventional linguistic and logical methods used in most school settings.

Funding and resources

In the US, there is currently no federal mandate for states to address needs of gifted and talented students. Many states do not mandate gifted education programs, and many do not provide funding for gifted education, resulting in a patchwork of state policies that leaves the gifted children in some states without access to equitable education. According to research, the funding to GATE programs is insufficient, especially after the NCLB Act. By comparison, the amount to GATE program is less than \$.02 of every \$100 spent by the federal government on NCLB (Siemer, 2009). Similarly, the funding for gifted education in Taiwan is 1.26% of the total budget for special education in 2008. That means the funding to GATE in Taiwan is only 0.054% of the total education budget. Therefore, the researcher would like to know the opinion of interviewees regarding this matter.

“I would love to have more art supplies at my disposal, a budget for buying novels or digital resources, and money to take students out of the classroom to go on field trips to museums, science centers, performing arts, businesses, or to bring lecturers and presenters into the classroom for students and for parents, as well.” (US01_03)

“Equipment provided and update status can’t satisfy gifted students’ needs.

When budgeting funds, gifted students usually fall into the myth of having high socioeconomic status.” (TW01_03)

All the interviewees in Taiwan think the funding may be sufficient, yet the funding on technology equipment is very inadequate due to the strict policy for the funding distribution and usage. The interviewees think technology equipment, such as computers, plays an important role in students’ learning, especially when the students are doing independent

studies. The interviewees in the US indicate the funding is fine but they would like to have an increased budget for buying novels, art supplies, or digital resources, and money to take students out of the classroom to go on field trips because real life learning experiences are the best learning.

Family factors

Screen and identification procedures that are commonly used in GATE program include standardized test scores, teacher recommendations, and parent referrals. The parent plays an important role as well in not only family education but also in the identification procedure. According to the interview results, we can know how parental or family factors affect the equitable access to GATE for minority students.

“There are also limiting factors like being able/willing to drive your GATE identified child to our location for a self-contained GATE class, compared to leaving your identified child at the neighborhood school to receive services in a pullout program for some portion of the day provided by the regular classroom teacher.” (US01_02)

“Average socioeconomic status of new immigrant families generally is lower than Taiwanese families; in Taiwan, a lot of information has been posted on the Internet, however, low socio-economic status families usually have no way to know such information, which has caused new immigrant gifted students to be underrepresented. Many new immigrant parents (for example, immigrants from Southeast Asia) do not have as much positive attitude as other Taiwanese parents have toward their children, resulting in the children's childhood cultural stimuli being insufficient. It may lead to new immigrant gifted students being underrepresented in gifted education. I mean, after all, there is an important step in giftedness identification: register, but

many parents of new immigrants seem to not know this kind of information.”

(TW01_02)

“Many new immigrant students’ families are not able to provide them adequate learning stimulation, so when accepting identification tests, they show their weakness manifest on the verbal section which emphasizes cultural stimulation richness.”

(TW03_02)

The interviewee indicated if there is no GATE program in a neighborhood school district, are parents willing or able to drive their children to another location for a self-contained GATE class? It may be an example of how parents’ decisions affect the access to GATE. Furthermore, socioeconomic status and education degree of the parents also play a vital role in parent referral. According to the interview results, the average socioeconomic status of new immigrant families in Taiwan generally is lower than other Taiwanese families, causing minority families to have few resources or limited information about GATE. Likewise, due to parents’ education level, many new immigrant families are not able to provide their children adequate learning stimulation. The children see their weakness manifested on the verbal portion of the assessment, an area of the test that emphasizes cultural stimulation opportunities.

Identification procedure and instruments

The identification procedure is one of the important parts to determine if a student can be served in GATE or not. The identification process of gifted education is based on subjective criteria such as teacher and parents’ recommendations, the possibility of racial bias, cultural values, and environmental pressures resulting in gifted minority students going

unidentified (Siemer, 2009). The researcher gathered the interviewees' opinions regarding this subject.

“I think it may be unfair, because a measurement of the contents in the identification process is somewhat different. As the aboriginal students' language often seen in the field of intelligence test scores is not ideal, because they usually use this language [Mandarin] not as frequently as their peers. Intelligence tests of language ability to understand or use of vocabulary, refined language for aboriginal students often disadvantages them in mainstream society, and the current gifted identification in Taiwan, looks at the total IQ (Verbal IQ+ Performance IQ), and therefore a gifted Aboriginal would be defeated in the lower part of the language resulting in underrepresented and unable to receive gifted education services.” (TW02_04)

“[I think the identification tool is] unfair because the test questions are mainly word problems, cannot exclude adverse cultural factors on the exam. In terms of WISC-IV, the common sense test subject, it is still very descriptive text, for new immigrants children, it is much more difficult.” (TW01_04)

“The multiple measures and portfolios a district may use to identify GATE children would be helpful for getting past a cultural bias present in any single testing instrument. I think the identification process in the [our] school district is improving and becoming more equitable.” (US01_05)

The interviewees in Taiwan indicated that the identification tool and procedure of giftedness is not quite fair for minority students due to cultural value differences and language proficiency. The Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV)

currently is used to identify gifted students in Taiwan, and the qualification for gifted education is determined by the total scores of verbal intelligence quotient and performance intelligence quotient. On the other hand, one interviewee in the US thinks the identification process in her school district is improving and becoming increasingly equitable. The district implements both traditional and nontraditional instruments and procedures for identifying gifted students and actively searches for referrals from teachers and parents among underrepresented populations.

Curriculum and differentiation of instruction

Improving the identification instruments and procedures of gifted education for diverse populations is necessary, but that does not mean equitable access to academic success is automatically generated for those culturally minority gifted students. Once these diverse students are referred, identified, and placed in GATE programs, they might not perform well if the teachers ignore or are unaware of the differences in children's backgrounds. It is important that curriculum and instruction be responsive to their interests, readiness, and skills to challenge them and reach their potential in schools (Ford, 2010). It is their right to obtain equitable education. According to the interview results, interviewees use multiple ways to provide instruction to meet diversity population in GATE.

“Strategies and activities that differentiate instruction to meet the diverse needs of individuals in any classroom could be categorized as those activities that cause children to make and express connections of all types between ideas, institutions, and events. Concept knowledge leads to connections between the disciplines. This is mainly done by raising questions for students to answer or generate themselves, constantly

utilizing universal themes, content imperatives, and other analytical tools that help to develop critical thinking and creative thinking as we pursue the study of content standards with depth, complexity, and novelty.” (US01_06)

“I often allow my students to be creative and do self-directed, self-chose research projects. This allows them to learn how to research independently and see what resources are best for their given project. It also allows them to generate their own questions, which is very important in my opinion.” (US02_06)

“Require more and never let them take the easy way out when there is a choice- I expect them to out perform.” (US03_06)

“I use a lot of strategies from Tomlinson, such as the use of multiple texts and supplementary materials, interest centers, independent learning contracts, and complex instruction, which help students find a suitable way to learn.” (TW02_06)

Synthesizing the interviewees’ opinions, they suggested some instructional strategies that can help teachers manage differentiation and help each student find a suitable way to learn at their own pace. One interviewee suggests that although the curriculum is already planned, teachers could provide options for students to select the materials that they are interested in to make it relevant to their lived experiences. In this way, students become active explorers and teachers work as a facilitator to guide the exploration. Moreover, it also can provide a place for students to voice their point of view and discuss if the viewpoint in the curriculum fits their own. It creates opportunities to open up class discussion to multiple perspectives of academic ideas.

Professional development of teacher

One factor that arose related to minority identification to GATE was that teacher training and professional development. In order to satisfy the needs of diverse learners, teachers need to be flexible to prepare curriculum, instruction, and the learning environment, instead of assuming that they will already come prepared to meet the needs of the teacher and the school (Lovett, 2011).

“I had to challenge my self to challenge them and it was a challenge.” (US03_08)

“I recently completed an online certificate program with USC Rossier School of Education, "Differentiated Curriculum for Gifted and High-Ability Students" created by Sandra Kaplan. ...that was time and money well spent.” (US01_07)

“I think professional training courses in differentiated curriculum can help improve a keen awareness of the power of teachers’ effect on students’ individual needs. Students would not dare reveal their differences to teachers because they might be too shy to express. Teachers have to be more sensitive and aware of early on the individual needs of the students in order to help them develop their strengths and overcome their disadvantages.” (TW03_07)

Many teacher professional development pathways were provided by the interviewees, such as participating in online courses and differentiated curriculum training courses. These training programs help teachers increase awareness of students' individual needs. With more culturally sensitive curriculum and differentiated instruction, students can learn more and participate more actively in the classroom.

Chapter 5 Discussion /Analysis

Summary of Major Findings

After reviewing and analyzing the interview results, the researcher generalized some themes from a collection of responses and discovered the disparity in GATE related to definition of giftedness, family factors, identification procedure and instruments, and curriculum and instruction. The following discussion was based on these four themes.

Comparison of Findings to the Literature

Definition of giftedness

According to the interview results, many teachers see giftedness as multiple intelligences rather than merely focusing on IQ. They believe that every student has one or more different dominant intelligences that is used most frequently to develop their potential. The theory of multiple intelligences expands the definition of giftedness beyond the conventional perspective used in most school settings.

However, only linguistic and logical-mathematical intelligences are valued in most current classrooms. Moreover, student ability has frequently been measured by identification tools that reflect a narrow definition of intelligence. For example, a student could be musically gifted and play professional piano chords in third grade, but struggle to memorize multiplication tables. Therefore, this kind of student whose dominant intelligences are different from linguistic and logical-mathematical are more likely to struggle in the classroom settings and be ignored during the referral procedures of GATE.

No matter in Taiwan or in the US, educators have awakened to the issue of disparity in the GATE program and have made an appeal to society to bring attention to it. Students can benefit when giving them opportunities to learn in a way that energizes and challenges them. To implement this transformation, educators should be careful of their knowledge and attitudes regarding giftedness that affect which specific students are serviced in GATE programs.

Family factors

Synthesizing the interview results, mostly teachers agree that parents play a key role in affecting whether their children are able to enter the GATE program. Students with cultural disadvantages include those who lack cultural stimulation from their family or whose home language or parents' primary languages are different from dominant languages. In addition to language barriers and cultural differences, many minority or new immigrant families have low socioeconomic status. Although we cannot generalize cultural minority or immigrant families to low SES, the study indicated that over 60% of African American children in the US under the age of 6 live in low-income households compared to 30% of White children (Dotterer, Iruka, & Pungello, 2012). The families with low SES generally lack financial, social, and educational supports for their children. They often have limited access to helpful resources and information that can support children's development and learning. For example, some parents of cultural minority students do not understand how important GATE is when their kids are gifted and how their kids can receive GATE services.

Dotterer, Iruka, and Pungello (2012) also indicated that children with more highly educated mothers had higher average reading proficiency and print familiarity than children from less educated homes. However, most of the new immigrant students' parents in Taiwan,

especially mothers, have low education levels and are unable to speak fluent Mandarin that is used in school settings. That is a key reason why new immigrant students underperform on the identification procedure that included verbal assessment.

To the researcher's best knowledge, communicating with parents about their children's progress and struggles is very essential. Schools could encourage and facilitate parental involvement in their children's education by offering parenting classes regarding enhancing positive interactions with their children. Moreover, schools have to initiate communications with cultural minority families to inform them what programs are available for the students' learning needs to support in their school performance. Most importantly, making the information accessible is one improvement that schools in Taiwan could do. For example, schools could offer translators for new immigrant parents at large events, parent meetings or conferences if possible. Furthermore, providing language lessons for new immigrant parents might be beneficial as well.

Identification procedure and instruments

The results of this study show how culture difference and language proficiency can influence identification procedure in crucial ways. In Taiwan, the Special Education Act specifically stipulated that "local authorities and schools should reinforce identification procedures and counseling services for gifted students with special needs or with socio-economical and cultural disadvantages" (Ministry Of Education, Taiwan, 2013).

However, the interviewees in Taiwan indicated that the identification tool and procedure of giftedness is not quite fair for minority students. Many new immigrant students underperform in verbal sections of WISC-IV because their family background results in cultural differences and limited language proficiency. It implies that traditional ways of

assessment for intelligence may be biased to certain groups of students. Standardized IQ tests have usually been used as a primary tool for sorting students, principally those whose cultural background and languages differ from the mainstream (Nieto & Bode, 2012). Standardized tests alone hardly guarantee equality and do not fairly accommodate the linguistic and cultural differences of minority students; therefore, schools and government have to rethink testing policies and practices in order to make them more equitable.

According to the research study, the use of alternative nonverbal tests could foster cultural sensitivity for identification that facilitates equalizing the process of identification and assessment for all gifted children and reduce bias towards minority students (Courville & DeRouen, 2009). It is beneficial to consider the different experiences, values, abilities, and lifestyles students have when they enter school and how these differences in the school environment have effects on their performance.

Curriculum and instruction

According to the interview results, both the interviewees in the US and in Taiwan agreed with and provided several examples of instructional strategies that can help teachers manage differentiation, provide each student the best-fit curriculum design and support, and help them find a suitable way to learn on their own pace.

As an educator, we cannot fully understand or experience the struggles of our students of color, but we can create a safe and empathetic environment where their stories and experiences can be acknowledged and shared (Howard, 2006). Making connections among culture, identity, and learning should not lower our expectations of them. Nieto and Bode (2012) indicated that teachers who modified or accommodated the curriculum without lowering their expectations of students were better able to reach their students. Modifications

and accommodations can be made based on communication styles, learning styles, lesson design, and instruction in order to promote the learning of cultural diverse students; therefore, getting to know each student's background is essential. Students' differences, including their identities and backgrounds, have to be taken into consideration in teaching; with more culturally sensitive curriculum and differentiated instruction, students can learn more and participate more actively in the classroom.

Limitations/Gaps in the Research

This study only included 3 teachers in GATE program in California and 3 teachers in Taiwan. We cannot infer a conclusion from the interview results because the researcher could only interview a limited number of teachers. Furthermore, it must be noticed that while race, ethnicity, SES of the interviewees in the study may be related; the researcher did not take these factors into consideration in this study.

Implications for Future Research

Despite the limitations, the results do suggest important implications for research. Several related concerns emerged from the review of the literature of this study. The researcher is wondering why do Asian students, as a cultural minority group in the US too, not suffer from the same underrepresented situation as other minority groups? Further research also needs to focus on how to create culturally appropriate gifted curriculum that address the needs of the cultural minority students who might have high potential but low achievement in school. According to the interview results, the influence of the parents and family factors on

the underrepresentation of GATE is great. It would be valuable to include parents or family members into the interview process and gather opinions from their perspectives.

Overall Significance of the Study

All students must be provided the real possibility for equal academic outcomes. Teachers can do nothing to alter the conditions in which their students may live, but teachers are able to change their own perspectives and the institutional structures that might impede students' learning and possibilities for success (Nieto & Bode, 2012). The literature and the interview results both imply language proficiency and cultural stimuli are the biggest issues with IQ tests or their equivalents. Standardized tests alone do not guarantee equality; therefore, it is more beneficial for schools and governments to rethink testing policies and practices, and take diverse cultures into consideration.

About the Author

The author has a Bachelor's degree in Special Education from University of Taipei, Taiwan.

She also received her master's degree from University of Taipei in master's program of Gifted Education in 2010. In 2014, she completed her second master's degree in Education at Dominican University of California.

References

- American Psychological Association. (2010). Publication manual of the American Psychological Association. Washington DC: American Psychological Association.
- Brice, A., & Brice, R. (2004). Identifying Hispanic gifted children: A screening. *Rural Special Education Quarterly*, 23(1), 8-15. Retrieved from <http://ehis.ebscohost.com>
- California Department of Education. (2010). *Improving education for English learners*. Sacramento, CA: California Department of Education.
- Courville, K., & DeRouen, Z. (2009). Minority bias in identification and assessment of gifted students: A historical perspective and prospects for the future. (ED507650). Retrieved from <http://ERIC.ED.GOV/?id=ed507650>
- Donovan, S., Cross, C. T., & National Research Council (U.S.). (2002). *Minority students in special and gifted education*. Washington, D.C: National Academy Press.
- Dotterer, A. M., Iruka, I. U., & Pungello, E. (2012). Parenting, race, and socioeconomic status: Links to school readiness. *Family Relations*, 61(4), 657-670. Retrieved from <http://ehis.ebscohost.com>
- Elhoweris, H., Mutua, K., Alsheikh, N., & Holloway, P. (2005). Effect of children's ethnicity on teachers' referral and recommendation decisions in gifted and talented programs. *Remedial and Special Education*, 26(1), 25-31. Retrieved from <http://ehis.ebscohost.com>
- Erwin, J. O., & Worrell, F. C. (2012). Assessment practices and the underrepresentation of minority students in gifted and talented education. *Journal of Psychoeducational Assessment*, 30(1), 74-87. Retrieved from <http://jpa.sagepub.com/content/30/1/74.refs.html>

- Ford, D. Y. (2010). Underrepresentation of culturally different students in gifted education: Reflections about current problems and recommendations for the future. *Gifted Child Today, 33*(3), 31-35. Retrieved from <http://ehis.ebscohost.com>
- Howard, G. R. (2006). *We can't teach what we don't know*. New York: Teachers College Press.
- Hughes, C. E., Shaunessy, E. S., Brice, A. R., Ratliff, M., & McHatton, P. (2006). Code switching among bilingual and limited English proficient students: Possible indicators of giftedness. *Journal for The Education of The Gifted, 30*(1), 7-28. Retrieved from <http://ehis.ebscohost.com>
- Lovett, P. (2011). Solutions for Jay and other underrepresented gifted minority students. *Gifted Child Today, 34*(1), 55-59. Retrieved from <http://ehis.ebscohost.com>
- Ministry of Education, Taiwan (R.O.C.): Department of Statistics. (2012). New immigrant children. Retrieved November 15, 2013, from <http://stats.moe.gov.tw/>
- Ministry of Education, Taiwan (R.O.C.), (2013). The special education act. Retrieved November 15, 2013, from <http://edu.law.moe.gov.tw/>
- National Association for Gifted Children. (2008). Jacob Javits gifted and talented students education act. Retrieved November 15, 2013, from <http://nagc.org/index.aspx?id=572>
- Nieto, S. & Bode, P. (2011). *Affirming diversity: The sociopolitical context of multicultural education*. Boston: Pearson Education Inc.
- Pfeiffer, S. I. (2012). Current perspectives on the identification and assessment of gifted students. *Journal of Psychoeducational Assessment, 30*(1), 3-9. Retrieved from <http://ehis.ebscohost.com>

Pollock, M. (2008). *Everyday anti-racism: Getting real about race in school*. New York: The New Press.

Robertson, S., Pfeiffer, S., & Taylor, N. (2011). Serving the gifted: A national survey of school psychologists. *Psychology in the Schools, 48*(8), 786-799. doi: 10.1002/pits.20590

Rowley, R., & Wright, D. (2011). No "white" child left behind: The academic achievement gap between black and white students. *Journal of Negro Education, 80*(2), 93-107.

Retrieved from <http://ehis.ebscohost.com>

Schroth, S. T., & Helfer, J. A. (2009). Practitioners' conceptions of academic talent and giftedness: Essential factors in deciding classroom and school composition. *Journal of Advanced Academics, 20*(3), 384-403. Retrieved from <http://ehis.ebscohost.com>

Siemer, E. (2009). Bored out of their minds: The detrimental effects of no child left behind on gifted children. *Journal of Law & Policy, 30*, 539-560. Retrieved from <http://ehis.ebscohost.com>

Smith, D. D., & Tyler, N. C. (2013). *Introduction to contemporary special education: New Horizons*. New Jersey: Pearson Education Inc.