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INTERNATIONAL & COMPARATIVE EDUCATION | REVIEW ARTICLE

The scenario of gifted education in Brazil

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Abstract: The purpose of this paper is to provide an overview of gifted education in Brazil. A scenario of the education of the gifted is presented, including the official concept of giftedness as well as programs and services available to emphasize important contributions to the area. Although there are considerable advances regarding policies, practices, and research on giftedness, the country faces many challenges regarding the waste of talent and the quality of public education. Thus, there are difficult issues that must be addressed to promote the education of gifted children and the development of high abilities in Brazil. Relevant research findings have emerged during the past 10 years indicating problems and possibilities to consider. The proposals for future directions with regard to the gifted in diverse socio-economic situations and their teachers are presented.

Subjects: Gifted & Talented; International & Comparative Education; Inclusion and Special Educational Needs

Keywords: intelligence; high abilities; talent; giftedness; creativity

1. Introduction

Gifted education in Brazil is considered a need as formulated in the governmental regulations for special education since 1971. Although several centers for educating the gifted have been established since then to accommodate students coming from public elementary and secondary schools, there are still several barriers to overcome to help these students realize their potential. Socioeconomic

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PUBLIC INTEREST STATEMENT

Efforts have been made by the Brazilian government to attend the needs of gifted children. However, the education of the gifted in the country still faces many challenges. Although educational policies have called attention to the gifted, the number of students who are identified and are properly educated in Brazil is presently low. Issues regarding identification, misconceptions, acceleration, and professional development must be addressed. There is an increasing number of studies on giftedness conducted by Brazilian researchers. This article discusses the state of gifted education in Brazil, its challenges and advances. A developing country like Brazil, which deals with a full range of problems, cannot ignore their talented students because they are the most valuable resource a nation can have.

restrictions are present in public education, decrease the possibilities for teacher training and impact the quality of public education. Additionally, myths that distinguish those who are considered privileged exist not only among the lay people but also among educators. More opportunities for talent development at the high school and undergraduate levels are being offered through scholarships by federal and state agencies. Aiming to provide a comprehensive overview of gifted education in Brazil, this paper will discuss several issues related to the Brazilian educational system, the policies and programs concerning the gifted as well as current research advances related to this theme.

2. Brazilian educational system

Brazil is the largest country in South American with an estimated population of 204 million inhabitants. Approximately 18% of the Brazilian population consists of children ranging in age from 0 to 11 years, and 12% of the population consists of young people ranging in age from 12 to 18 years old, thus indicating that a considerable portion of its population requires basic educational programs (Ministério da Educação, 2016).

The Brazilian basic educational system includes kindergarten school (3–5 years old), elementary school (6–14 years old), and high school (15–17 years old). Public education is supported by state and municipal governments. In public schools, the students who attend elementary (90.5%) or secondary education (82.4%) are mainly from low income homes, whereas those from more affluent families attend private schools (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira – INEP, 2016). Education is free and mandatory for elementary school, a policy that has recently been extended to high school (National Policies for Special Education Act of 1971). Still, there is a high dropout rate (50%) between elementary school and high school completion, which raises concern that schooling has a low attraction for many youngsters (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira – INEP, 2013).

Educational enrollment has been increasing in Brazil in the past decade; however, one in five youngsters ranging in age from 15 to 29 years were neither in education nor employed in the 2009 census (Organization for Cooperation & Economic Development – OECD, 2012). The reasons youth give for quitting school mainly involve the educational methodologies and extensive core of disciplines that are not perceived to be relevant in addition to work needs and other motives (Mendes, 2013). Indeed, the performance of Brazilian elementary and secondary school children is worrisome according to the Program for International Student Assessment (PISA), as they are ranked 57th on mathematics, reading and science compared to students from 65 other countries (Organization for Cooperation & Economic Development–OECD, 2014). These are important indicators of the huge waste of talent and giftedness among Brazilian students and emphasize the necessity to prepare teachers and motivate young students to complete their education. To understand how gifted children are identified in Brazil, a brief historical panorama of educational policies directly affecting gifted children will be presented.

3. Policies for gifted education in Brazil: A historical perspective

The first educational policy that explicitly addressed the needs of Brazilian gifted students was established in 1971. In the next two years, this policy was implemented through the Sectorial Plan of Education and Culture in which the gifted student was included as having special educational needs (Delou, 2007). The official definition of giftedness adopted in this plan was based on the definition presented in the 1972 Maryland Report to the U.S. Congress (Davis & Rimm, 1994). Since then, many programs for the gifted sponsored by the Brazilian Government and non-governmental organizations have been implemented in the country.

Two decades later, the Ministry of Education published the National Policy of Special Education containing guidelines regarding the education of the gifted. The expression *high ability* was added to the term giftedness as a synonym. According to this document, children with high abilities/gifted children are those who demonstrate high achievement and potential in any of the following areas: general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, music, visual and performance arts, and psychomotor abilities (National Policies for Education

Act of 1994). For the first time, a governmental document that mentioned the education of the gifted was spread across the country to professionals in charge of teacher development programs (Alencar, Fleith & Arancibia, 2009; Delou, 2007).

In 2005, the Ministry of Education decided to establish High Abilities/Giftedness Centers of Activities in 26 Brazilian states and in the Federal District (NAAH/S). The structure of the centers included: teachers and students attending units and a family support unit. The purpose of the center was to provide services for gifted students through enrichment activities and to inform and support families by offering conferences and seminars (Ministério da Educação, 2005). The Ministry of Education also invited a group of experts in the field to write a four-volume book on relevant theoretical foundations and methodological practices to be sent to all state secretaries of education in the country (Fleith, 2007; Virgolim, 2007). For the first time in the history of gifted education in Brazil, a specific educational system targeting the gifted was proposed. More than 10 years later, the NAAH/S are still operating in many Brazilian states.

In 2008, the Ministry of Education disseminated the National Policy of Special Education on the Inclusive Education Perspective in which gifted students were defined as those who demonstrated high potential in one or more of the following areas: intellectual ability, academic aptitude, leadership ability, psychomotor and artistic ability, creativity, learning and task involvement. To date, this is the official definition of giftedness in Brazil.

Despite the policies that highlighted the relevance of education for gifted students, the total number of elementary and high schools identified and attended in Brazilian public schools is still low, approximately 13,000, which is far below the proportion that could be expected based on the proportion of the population in these age groups (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira – INEP, 2013). There is some variation in the way that gifted students may be identified, although the public school system process usually involves some combination of teacher and parent nomination, teacher judgment based on observation, achievement data (e.g. school grades, standardized test scores), psychological evaluation (e.g. IQ score or other general ability measure, or measure of creativity), and portfolio assessment.

The identification methodology relies mainly on teacher recommendations, school grades, parent information, and sometimes peer nominations. Psychological test results are not mandatory for enrolling students in programs for the gifted, but they are rather viewed as complementary information, likely due to the absence of a school psychologist at most public and private schools, since their presence is not required by law (Oakland, Wechsler, & Maree, 2013). Therefore, teachers have a complex task that is largely based on subjective observations to identify those students who are gifted in their classrooms.

4. Educational programs for the gifted: The present scenario

Programs for the gifted are offered mainly at the public level. Few programs are offered by private organizations. The educational programs offered at the municipal level by the schools located in the city of Brasilia (federal capital), São Paulo city (state of São Paulo), as well as in Lavras (state of Minas Gerais) are important examples that need to be presented.

In the city of Brasilia, an average of 1,000 elementary school children are enrolled in the Enrichment Program for Gifted and Talented. This program was established in 1975 and can be considered exemplary due to the systematic teacher training that it is offered by the school system. The main idea is to offer enrichment activities to potentially gifted students, such as education in science, mathematics, literature, arts, and music. The Schoolwide Enrichment Model by Renzulli (Renzulli, 1986, 1994; Renzulli & Reis, 1997) guides the program. Children attend the program once or twice a week, in addition to their regular class attendance. The majority of children attending this program come from low socioeconomic environments; therefore, this program can be viewed as an important complementary educational support for stimulating their academic talents (Alencar et al., 2009).

The city of São Paulo also offers an opportunity for teachers to be prepared to identify and accommodate the gifted at the Center for Specialized Teacher Support (CAPE). This center was organized in 2012 and offers educational materials in addition to strategies to stimulate high ability students to achieve in the regular classroom. Information on federal or state policies is also provided to teachers so they can nominate students for different opportunities aimed at accelerating their learning (Cuppertino & Arantes, 2012).

The Center for Talent Development (CEDET) was organized in Lavras (state of Minas Gerais) in 1993 and receives financial support from municipal and local organizations. This center was created by Zenita Gunther aimed primarily at helping children develop their capabilities and talents (Gunther, 2000). The children are nominated by their teachers at the public school so they come mostly from low socioeconomic environments. The children participate in CEDET activities, supervised by trained teachers. A mentor is assigned to each child to help him/her develop an individual plan.

The opportunities provided by the government to participate at academic competitions through Olympiads have opened important doors to students with high abilities/gifted students. The Mathematics Olympiads was launched in 1979, resulting from the combined effort of the National Institute of Applied and Pure Mathematics (IMPA) and the Brazilian Society of Mathematics (Olimpíada Brasileira de Matemática, 2016). The Mathematics Olympiads encompasses students from elementary school to university who compete at national and international levels with other fellows with outstanding mathematical abilities. Another opportunity is the Olympiads for the Portuguese Language: “Writing for the Future,” which was organized in 2003, was initially financed by private banks and was recently supported by the Ministry of Education. This program aims to stimulate reading and writing, mainly for those children at the public school level who lack a family cultural environment (Centro de Estudos e Pesquisas em Educação, Cultura e Ação Comunitária – Cenpec, 2016). The Olympiads for Sciences is organized by non-governmental institutions with the purpose of offering opportunities for high school students to compete in the areas of physics, chemistry, and biology with other international students (Olimpíada Brasileira de Ciências, 2016). A list of background subjects and skills to be evaluated in this Olympiad are offered online so teachers can prepare students for discussing this content.

Two other non-governmental organizations have also offered important programs to help students with high abilities/gifted children from deprived environments. One of them is the Institute Rogério Steinberg-IRS (Instituto Rogério Steinberg, 2016), located in Rio de Janeiro, and the other is the Social Institute to Motivate, Support and Recognize Talent—ISMART (Instituto Social para Motivar, Apoiar e Reconhecer Talentos, 2016), located in São Paulo city. Both organizations offer scholarships to outstanding students with high abilities who are nominated by their teachers and are enrolled at public schools, and the organizations offer the students opportunities to enrich their learning in private schools or through other educational activities. These programs have already accommodated a considerable number of low socioeconomic children and adolescents with the objective of improving their access to high-quality education.

Programs are also offered by some federal universities to undergraduate pedagogy students to prepare them to identify and accommodate the gifted in a future teaching career. For instance, programs at both the Federal University Fluminense (UFF), located in Niteroi (Rio de Janeiro state) and the Federal University of Santa Maria (UFSM), in the state of Rio Grande do Sul, aim to combine research with actions when training teachers. Therefore, they explore possibilities for providing different types of educational programs to gifted children and their families who come from low socioeconomic environments (Delou, 2012).

The Tutorial Education Program (PET), which is an honors program for Brazilian undergraduates, sponsored by the Ministry of Education (Ministério da Educação, 2016), provides enrichment activities to broaden the academic development of outstanding students. The students receive a scholarship, and one professor is allocated as a tutor. This program has opened important doors to students

with high abilities/gifted students to develop a vision of their future in ways they can contribute to society, as observed by Fleith, Alencar, and Costa (2012).

A national program offered by the government to stimulate students with high abilities/talented students is the Junior Scientific Initiation Program. This program is funded by the National Council of Scientific and Technological Development—CNPQ (Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPQ, 2016) and provides scholarships to high school students aiming to link their curiosity and research interests to university professors in different fields as a means to guide their scientific vocation. Other programs offered at national and state levels (Fundação de Amparo a Pesquisa do Estado de São Paulo, 2016) to undergraduate students majoring in different areas are offered in public and private universities. The mission of these programs is to stimulate research careers as these students participate in research projects led by university professors and have annual meetings in which they discuss the results of their research projects.

To synthesize the above, there have been several efforts to stimulate talents in children with high abilities/gifted children through various educational programs. However, some barriers to these programs reaching and benefiting more children and adolescents still exist among teachers and in society.

5. Concept of giftedness: Still a debate

Debates over the definition of giftedness reveal the incomplete or nonexistence of a relevant educational background among teachers in relation to giftedness, as the majority of teachers' training courses on special education are directed to those who are mentally or physically handicapped. For instance, a study on kindergarten teachers indicated that they had superficial concepts of giftedness, as they emphasized they believed these children had superior skills but presented socio-emotional vulnerabilities (Manso, 2012). The same difficulty in defining giftedness was observed among elementary school teachers working in private and public schools because these students were perceived as having superior performance and knowledge but also as exhibiting adaptation and emotional problems (Maia-Pinto & Fleith, 2013). Another study with 20 Brazilian elementary school teachers from grades 6 to 9 revealed that they did not have any professional development training on giftedness, which may impact their concept of gifted children and their practices in the classroom (Bahense & Rossetti, 2014).

Bias against the terms “high abilities” and “giftedness” seems to be a major problem among teachers. Indeed, teachers rejected these terms as confusing and as having negative connotations in the media, whereas the concepts of talents and high capacities were perceived to be easier to understand and more applicable to the school environment (Guenther & Rondini, 2012). Even among the deans of college educational programs, the concept of giftedness is still precarious because 50% of the deans revealed that they were not familiar with the phenomenon and declared that they did not recognize these abilities among their own students (Cianca & Marquizeine, 2014).

Unfortunately, the lack the preparation in teachers to recognize giftedness is a great barrier toward identifying these children in the public and in elementary schools. The prevalent idea is that those children already have excellent performance and do not require special attention, which is a considerable barrier for the application of specific educational programs directed at these students. The need to change this attitude among teachers and to inform society about the needs of gifted children has been a concern for Brazilian researchers.

An important professional association, the Brazilian Council for Giftedness/High Abilities—ConBraSD (Conselho Brasileiro para Superdotação, 2016) was founded in 2003 to discuss the issues regarding the identification of and services for the gifted in Brazil. The main goals established by ConBraSD are (a) to promote community recognition of situations and issues related to gifted people; (b) to collaborate with public and private institutions in charge of designing and promoting public policies for gifted people; (c) to provide scientific information regarding giftedness; and (d) to

foster the education and training of human resources for education, research, identification, and services designed for gifted people and their relatives. So far, ConBraSD has organized seven conferences around the country. International and national experts have been invited as keynote speakers. Therefore, these events aim to disseminate Brazilian programs and research findings regarding giftedness.

6. Research on gifted education in Brazil

According to Chacon and Martins (2014), the volume of research on giftedness began to grow in Brazil in the past decade. This growth is likely the result of the national conferences organized by the ConBraSD and other educational associations; for example, the Brazilian School and Educational Psychology Association (ABRAPEE), which focuses on special education to present the issue of giftedness to educators and psychologists for debate.

Nevertheless, most of the scientific investigations have been largely confined to master's theses or doctoral dissertations, which are approved in special education or educational psychology graduate programs. A review of these studies using the governmental electronic database for theses and dissertations (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - CAPES, 2016) can exemplify this growth. Up to the year 2008, 31 studies were located among theses and dissertations using the keyword "giftedness" (Santos & Wechsler, 2009), whereas in the past 5 years, 147 theses and dissertations conducted in different university programs could be found. Therefore, there is an increasing concern for identifying and developing giftedness in different contexts.

The number of publications in Brazilian journals have also grown in the past decade. Up to the year 2012, there were 19 articles listed in the open access Scientific Electronic Library Online - SCIELO (2016) using "giftedness" as a keyword. The most frequent themes of these investigations were definitions of giftedness, educational programming, policies, teacher training, family and school environment, and socio-emotional problems (Nakano & Siqueira, 2012).

To better describe the current concerns with gifted/high abilities students, an overview of the publications found in the SCIELO database for Brazilian journals in the last five years follows: Twenty-three studies were published: methodological articles ($n = 1$), literature reviews ($n = 2$), theoretical articles ($n = 6$), and empirical/case studies ($n = 14$). The empirical/case studies included research related to gender issues, educational practices, school issues, family characteristics, and measurements. Some of these studies will be presented below.

6.1. Gender issues

Questions have been raised related to gender discrimination on the identification process of giftedness. Regarding the category of gender issues, Prado and Fleith (2012) investigated Brazilian the profiles of female researchers, the factors that promoted or inhibited the development of their potential throughout their professional trajectories, family characteristics and the impact of their talent on family dynamics. The research occurred in two stages. In the first stage, 111 top Brazilian researchers participated in the study. In the second stage, eight researchers were selected at random. Three instruments were selected for the collection of data: a socio-demographic questionnaire, document analysis and a semi-structured interview. As for personal characteristics, the most common characteristic was pleasure in the accomplishment of tasks and dedication. This study verified that these individuals found dedication to a professional career to be superior to devotion in the personal, family, and social areas. This finding may indicate both emotional involvement with work and the overload it generates. Excess work demand and the structure and conditions required for the accomplishment of Brazilian scientific work were noted by researchers as inhibiting factors. The existence of conflicts to conciliate career and family life were frequently noted to result from gender stereotypes, both in the division of domestic tasks and in the existence of prejudice in the professional environment. The impact of the participant's talent and professional success was positive in relation to children but negative in the marital subsystem.

Pérez and Freitas (2012) conducted a case study involving two gifted women identified in adulthood who were still reluctant to recognize themselves as gifted. A characteristics questionnaire and semi-structured interviews were used to collect the data in three different years: 2008, 2009, and 2011. The findings indicated that these women started building a positive identity as gifted females due mainly to exchanges with gifted peers and increased discussion of the topic of giftedness.

6.2. Educational practices

Another common topic of research concerns educational practices. Maia-Pinto and Fleith (2015) investigated the perceptions of elementary school gifted students, who went through the process of acceleration when attending early childhood education, and their mothers and teachers with regard to the practice of accelerated learning. Twelve students, 12 mothers, 10 teachers from regular classrooms and five teachers from a program for gifted students were interviewed. The results indicated that academic acceleration was a successful intervention for students that did not result in academic losses or socio-emotional difficulties in the following grades. The mothers and students evaluated acceleration positively, while the teachers positioned themselves unfavorably in relation to acceleration, although they did not identify emotional or academic problems in their accelerated students. Both teachers from regular classrooms and the gifted program positioned themselves unfavorably in relation to acceleration. The arguments were associated with the probable adjustment problems facing accelerated students in the following grades because of emotional immaturity and the belief that acceleration generates academic difficulties in subsequent years or in other areas of knowledge. However, the teachers did not identify such problems in their accelerated students. The findings revealed that academic acceleration is a promising alternative for the education of high ability students. However, in the Brazilian educational context, the parents of gifted children have faced resistance against this practice, despite research results in its favor.

6.3. School issues

Questions related to problems in school environments were also investigated. For example, Dalosto and Alencar (2013) investigated whether gifted students were being bullied in the school context. The sample consisted of 118 students whose ages ranged from 10 to 20 years; 53% of these students were between 12 and 14 years of age. More than 90% of the participants stated that bullying is a widespread practice in schools. The students felt that the perpetrators are guilty for these practices and that prejudice and “teasing” are the main motivators. The students indicated that most of these incidents occurred during recess. It was found that gifted students witnessed, practiced and were the target of the different manifestations of bullying in their schools. Among the bullying behaviors most often cited by the gifted students as both victims and aggressors are “fooling around” or humiliating the victim, gossiping and perpetrating intrigue, throwing objects at others, excluding others from play and name calling. The gifted students, as victims, revealed that they felt bad when facing the aggressive behavior and experienced shame and fear. As perpetrators, they reported that they felt supported by the group.

Likewise, Oliveira and Barbosa (2012) compared the occurrence of bullying among students with and without characteristics of giftedness and talent by administering a questionnaire to 339 elementary school students, of whom 59 of them were gifted students. No significant differences were found between the groups regarding their involvement with bullying. The gifted students more often adopted the behavior of calling for help to combat bullying. The students with artistic talent tended to be more victimized than the ones with abilities in other domains.

Tentes and Fleith (2014a, 2014b) compared 53 gifted achievers with 43 gifted underachievers according to their skills, preferences, interests, motivational factors/aspects, personal characteristics, interpersonal and academic relationships, learning styles, and parental attitudes. Nonverbal intelligence psychometric tests, verbal, and figural creative thinking and academic performance tests were used, as were scales for personal, academic, and motivational characteristics, learning styles, self-concept, and parental attitudes. The results indicated a prevalence (2:1 ratio) of gifted underachievers among gifted students. Compared to underachievers, the gifted achievers performed

significantly higher on measures of intelligence, total creativity, and verbal creativity, self-concept (in the behavioral conduct and global self-esteem dimensions), total school performance, and in the writing sub-test. The gifted underachievers scored higher for extrinsic motivation than the gifted achievers. Regarding the variables related to family, no significant differences were perceived concerning parental educational attitudes of gifted achievers and gifted underachievers.

6.4. Family characteristics

Chagas and Fleith (2012) described the family characteristics and dynamics of 42 talented adolescents. A family characteristics questionnaire and the Parent Success Indicator Inventory (children and parent versions) were used as instruments. According to the results, more than half of the families with talented adolescents had a traditional structure with spousal parents and children born of their own conjugal union. These families prioritized education and the development of their children's talents. The family dynamics involved a wide range of routine and leisure activities, especially those related to rest, school, watching television and movies, and visiting relatives. The parents evaluated their parental performance toward the adolescents more positively for communication, use of time, teaching, frustration, and satisfaction.

6.5. Measurements

A Brazilian overexcitability scale was designed and validated by Oliveira and Barbosa (2015). The instrument, which assesses psychomotor, sensual, imaginative, intellectual, and emotional overexcitability, was administered to 263 elementary school students. The results revealed good fit indexes. Additionally, the alpha Cronbach indexes varied from 0.68 (psychomotor factor) to 0.87 (sensual factor). The final version of the scale has 56 items.

Another Brazilian measure for identifying gifted students was designed by Nakano et al. (2015). A battery for assessing gifted students was administered to 987 elementary school students (ranging in age from 8 to 17 years). The battery included intelligence (verbal, abstract, numerical, and logical reasoning) and figural and verbal creativity tests. In general, the battery showed fit indexes, except for three items of the logical reasoning factor, which warrant more attention in future studies.

On conclusion, it is unquestionable that interest in understanding the phenomenon of giftedness has increased in Brazil. Researchers from universities across the country have paid attention to different dimensions of giftedness. More importantly, schools and families can access the results of these studies. The scientific community is motivated to establish collaborative partnerships with educational institutions. Although there is a long way to go, it is not possible to deny the advances that the scientific research has brought to gifted education in Brazil. In addition, Brazilian researchers have made notable effort to stay up to date by attending conferences around the world, joining international organizations for giftedness, such as the World Council for Gifted and Talented Children, the National Association for Gifted Children, and the European Council for High Abilities, and by establishing networks around the world.

7. Challenges regarding gifted education in Brazil

Although advances regarding services and programs for gifted children in Brazil are recognized, especially in the past two decades, a number of key challenges must be addressed to foster the development of gifted children. According to Alencar et al. (2009), the barriers present in Brazilian society are as follows:

- (1) Problems regarding identifying the gifted: It is not uncommon for a gifted child to be diagnosed with ADHD because psychologists or educators are not familiar with the characteristics of high ability students.
- (2) Scarcity of professional development programs: Brazil has few university level teacher training programs focused on gifted education. Therefore, teachers lack information on the characteristics of the gifted and how to offer programs that may fit their needs. Thus, the gifted children are neither recognized among other regular students nor are they stimulated to explore their talents.

- (3) Limited number of support services for parents of gifted children: Parents are usually confused as to how to deal with their children, and they find little support in obtaining this information in the school or in their community. Often, they face hostility at parent-teacher meetings because they are considered to be privileged and as taking time away from other parent to discuss their children's learning difficulties.
- (4) Focus of enrichment programs: Most programs and services provided for gifted students have focused on cognitive and academic abilities. Very few programs have paid attention to the development of affective characteristics, such as acceptance of mistakes, interpersonal skills, decision-making skills, empathy, and leadership.
- (5) Lack of integration between programs for the gifted and those of regular classrooms: In Brazil, few schools offer enrichment program to these children and they usually occur in addition to regular classes (they usually study in the morning or in the afternoon).
- (6) Resistance to acceleration implementation: Although enrichment programs are regulated by state laws, there are several bureaucratic requirements as well as resistance among school teachers and principals against implementing these programs.
- (7) The number of students identified as gifted and properly placed is still low, due in part to socio-cultural resistance to specialized programs for students who are already perceived to be privileged as the country faces challenges, such as illiteracy and learning disabilities. The misconceptions about giftedness can partially explain this scenario.
- (8) Shortage of financial support for implementing programs and services for gifted students: The amount of governmental investment in gifted programs has been drastically reduced due to the economic and political crises that the nation currently faces as well as the belief that the investment in gifted education is a waste compared to investment in other areas of education.

8. Gifted education in Brazil: Future directions for research and program development

As a 3rd world country, Brazil faces many challenges on gifted education, which demand strategic planning. The country has a considerable number of gifted students who are not identified; therefore, talent waste must be a major concern for school educators. The number one mission should be to increase the number of gifted students identified and to provide education consistent with their needs and abilities. Among several strategies for meeting this goal, we can propose the following actions.

First, in developing countries, gifted children should be perceived to be potential future leaders who could foster the country's economic and social development. Therefore, the contributions and rights of gifted students must be considered by Brazilian society. Second, educators and psychologists should be trained during their undergraduate studies in the area of giftedness. The focus of teacher training should be enhanced to include giftedness as a part of the program for teaching those individuals with special needs.

Third, it is time for Brazilian schools to recognize the benefits of acceleration and be receptive to distinct acceleration options. In this regard, guidelines concerning the implementation of this practice should be established and made available to teachers and families. Fourth, parents need to receive support during their journey as parents of gifted students. Counseling programs should provide opportunities for parents to clarify misunderstandings about gifted behaviors, share their practices and discuss strategies that they can apply in the family context to enhance and cultivate their children's potential and talent development.

Fifth, schools must consolidate collaborative partnerships with the universities and governmental and non-governmental organizations to improve the education of the gifted and to make gifted children more visible for Brazilians. Sixth, more attention should be paid to develop the affective

characteristics of gifted students, especially in this era of intolerance, violence, egocentrism, and unethical actions. In gifted education, fostering cognitive abilities is insufficient.

Undoubtedly, more research needs to be conducted in Brazil to better understand the phenomenon of giftedness. We suggest the following topics to be addressed in future studies: (a) the effects of different educational strategies, including acceleration, on the academic and affective development of the gifted; (b) the concept of giftedness presented by teachers and principals; (c) the medium-term and long-term effects of gifted program attendance; (d) the comparison between families with gifted and nongifted children with respect to the characteristics and dynamics between these children; (e) the instruments designed to assess different dimensions of giftedness; and (f) the role of technology in the education of the gifted.

Educational practices for gifted students should be research-based and not only based on the educators' beliefs, values, and intuition. Therefore, we need to go beyond the stereotypes and the false argument that we cannot recognize merit to understand the considerable contributions that gifted children can make to the country's development. According to the famous Brazilian educator, Novaes (2008), "If the future is uncertain, it is up to us to decide how we want to live, and which contributions we want to make to future generations and to the humankind" (p. 14).

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