

A Review on Indonesia Policy in Supporting Gifted Students Education

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Abstract— Generally, gifted students are known as students who have incredible ability in learning faster. The ability in learning faster of gifted students which exceed their peer needs special education services properly to avoid students being underachiever. This article will present the definition, history and representation of how Indonesia government support education for gifted students in the last one decade. The development of gifted students in Indonesia is affected by the policy from Ministry of Education and Culture. This effect is showed by the government policy by developing some new programs and stopping the program for gifted students. The concern of the negative impact on the potential gifted students who are not being served will be discussed. The implication of the study showed theoretically the support of the government on gifted students' education is improving. However, practically, the government decision in gifted students' program development is limited by a stiff policy which causes inflexibility of gifted students. Besides students are not allowed to be free in deciding their chosen which is appropriate to their potential, this policy caused worries on the psychology aspect of the gifted students. This article provides the alternatives of decision making through some rational programs to solve the government worriedness.

Keywords— *gifted students, education policy, Indonesia, education development, gifted education*

I. INTRODUCTION

Now days many countries start provide gifted education programs for gifted students, the opportunities to understand students and profound academic interventions can be done through cross-cultural research [1]. It shows that education for gifted students is important as the assets of nation in facing the global development and competition. Unfortunately, the statistical data of the population of gifted students in Indonesia is still unknown.

The extent of Indonesia's territory which incidentally is an archipelago country seems to be one of the constraints and challenges for the government to ascertain the exact number of gifted students. The center of statistic institution (BPS) records the population of primary to secondary education students in 2017 is around \pm 45 million people [2]. That number of students which is large shows that the potential for the existence of gifted students in Indonesia is certainly quite large from other countries. If looking on the gifted program in Canada, there are around 18 acceleration programs in Canada [3], how about the gifted program in Indonesia? That number of programs which is done by Canada portrayed how students' enthusiastic on the gifted programs and government's way in supporting education for

gifted students. This article will present the historical landscape of education of gifted students in Indonesia during the last one decade. In relation to the history of education of gifted students, the role of policy is examined as government support for the education of gifted students. In this opportunity, the researchers will also examine what concerns can occur to students' academic abilities which are faster than their peers and the alternative education that can be done for gifted students in Indonesia.

The rest of this paper is organized as follow: Section II describes the literature review. Finally, Section III concludes this work.

II. LITERATURE REVIEW

This section presents the literature review.

A. Get To know Gifted Students

Gifted students are known as students who have ability in learning faster than their peers [4], [3]. The word "gifted" is not only the one word which can be addressed to one who has a potential in learning faster. There are many ways to define and conceptualize the word gifted. Some people state that children who can get some achievements in their early age are the gifted children. Some people also give some appreciation to children who can get achievement more than their peers as gifted children. That is true that gifted children are not only genius in their academic aspect, but they can also have more abilities or focus on one subject such as art, science, sport and others [5]. Based on this unique ability, Renzulli with his famous three ring concept describes the characteristics of gifted; having high intelligent, commitment on their task, and creativity [6]. Meanwhile, Gagne has different view on the term of gifted and talents. He defines that someone can be called as gifted children if their ability is obtained naturally from birth while talent is an ability that can develop through learning and practice [7]. Even though many different views on the concept of gifted children, but in general there is it has common factor that intelligence becomes an important factor as a gifted characteristic [7], [6]. Thus, the diversity of definitions and conceptualization of gifted children which is inherited by previous researchers can be used as a temporary philosophy.

B. The Measurement of IQ (Intelligence Quotient) Standard

In binary view, a child can be called as gifted children if their result of the measurement of IQ (Intelligence Quotient) is greater than 130 Wesler scale/140 Binet scale (IQ>130 Wesler Scale/140 Binet scale) which means that the

standard IQ for gifted children is greater than 130 using Wesler Scale or 140 using Binet scale [8], [9], [10]. However, along with the development of the new era, the research which is done by Hampshire, *et al.* in [12] has claimed that the measurement of intelligences through IQ standard is just a myth and not adequate to represent someone's cognitive abilities. They argue that intelligence measurement just can be seen from three aspects: the short memory, thought, and verbal ability [11]. The findings from that research have been succeeded to wave the concept of IQ standard as the intelligence measurement. This affects some countries to stop the use of IQ for intelligence measurement and as the criteria to get in into a program for gifted students [12], [13]. This is indeed an unexpected result because it has opposed the norms that have developed so far in the world of psychology. This finding is a revolutionary form in the modern era that managed to change the way views become more rational and eliminate symbols as someone's intelligence.

IQ measurement only represents one side of the function of human's brain, meanwhile human's intelligence is consisting of three spinning vortexes in the brain (the short memory, thought, and verbal ability) [11] so that human's intelligence is not only when people can pass the IQ test but also from other aspects which should be concerned. This finding has given a rational view that those three aspects (the short memory, thought, and verbal ability) are integrated to each other and being factors in determine one's intelligence. In other words, this finding present to the world that human is unique and diverse, so that each person's ability cannot be compared to each other. A person could be having a special competence in one subject but not in other subjects, or a person could be having multi-competence in some subjects based on his/her interest.

C. Gifted measurement at this time

The IQ measurement is argued that it held people which can be limited by the measurement tools [12], [13]. This is because IQ measurement only represents one function of someone's brain [11]. In line with this, some countries In line with this, some countries have also given an attitude towards this by prohibiting the use of IQ as the criteria for the acceptance of gifted students' programs. If IQ measurements have been abandoned by some countries, how about Indonesia attitude in this time? Although the IQ measurement is viewed as an intelligence symbol with the wrong way of thinking and some countries have also responded to this by not applying it as the criteria of gifted students' programs, however this is not completely abandoned. Nowadays, Indonesia is one of countries which still believes and works using IQ measurement as the criteria for gifted students to get in into the gifted students' programs. This is known from the gifted program which mentions the IQ standard should be 130 as the criteria of student's admission in the ministry of education and culture policy. [13]. We do not know yet why Indonesia still uses IQ as the criteria of gifted students. This is might be because the lack of information or it is a form of caution in providing state attitudes. The center of statistic institution (BPS) noted that Indonesia have population of students of

elementary school until secondary school is around ± 45 million of people [2]. If it is assumed that 3-4% of the population are the student who has the potential as a gifted student, then this is very crucial if the government cannot record or facilitate those potential students. Do not let those potential students be taken away by foreign and other countries which see that those students have a good potential and talents by providing scholarships, raised and facilitated by them.

If IQ measurement has been abandoned, how do you measure the ability of students who deserve to be categorized as gifted?

The research which is done by Hampshire, *et al.* in [12] not only make a doubt thought on Biner views about IQ measurement but also for the countries which still use it as a conventional thought in defining and identifying gifted students. America is an experience country in gifted student programs [14] which is care on the development of gifted student's potential in learning faster, this is showed by the number of famous gifted program in Canada [3]. One of the famous gifted programs in America [15], [16] uses Scholastic Assessment Test (SAT) as the systems to measure the skills and knowledges of students who will continue their study in higher education. [17], the test consists of two main parts; language and math. Then, the component of SAT divided into three parts: Reading, 2) Writing and Language, 3) Math, and Esay SAT (optional) [18], [19]. This integrated system describes how the test works in selecting and helping students to measure their capacity, however is SAT score can be converted into IQ score?

This can be done the professional developer by using converter score of IQ to SAT but the result is only as the predictor. The validity of the convert score of SAT score to IQ score is still not known yet, this difficulty because SAT is planned to measure the readiness of students to do job leaps and competencies. For example, if gifted students of senior high school want to get acceleration to higher education, SAT is a proper test to measure students' competence. Meanwhile, score of some versions of SAT is proven has strong correlation with the IQ score [20]. This is a logic measurement to adequate the curriculum standard of higher education to select the new students who have the maturity of thinking which is faster than their age. So that it will immediately develop and adapt well in the face of their academic challenges. SAT scores are known to be widely used in top universities in the United States to top universities in the UK such as Oxford and Cambridge, even Singapore, Finland and Australia have used them [21].

Based on the explanation above, it can be concluded that there is a main differentiation of IQ score and SAT score should be considered. SAT test measures someone's knowledge on certain subject, meanwhile IQ test measures someone's competence in thinking generally. This is correlated with the research done that short memories, thought, and verbal competence is the unity of intelligence measurement [11]. This may be one of reasons why top higher education such as Oxford, Cambridge and others requires gifted students to send their SAT score if they want to get acceleration program. Besides that, this showed an

evidence to support the perspective than humans' intelligences are arranged not only from one aspect, but it consists of some integrated cognitive aspects [11]. Thus, IQ is not adequate to represent the intelligences thoroughly as the characteristic of gifted students which only uses the ability of understanding, remembering and reasoning. The ability of interaction, communication, specific domain and performance evaluation are needed as the assessment to guide gifted students' potentials properly.

D. The concerns that need to be considered on gifted students

Accomplishing some achievements which is done by gifted students is believed as one factor to achieve the great success, this assumption is a wrong perspective that can make gifted students rarely discussed and ignored [22] so that this seems to be a problem which is do not need any concerns anymore. This wrong assumption certainly needs to be straightened out, by considering that gifted students are not an angel or a god who can do everything easily. A superhero in fiction story also needs the support and help from other people as a partner to strengthen and motivate her/him in facing the problem. While, gifted students who can get achievements in a field can save millions of lives, cure illnesses, or solve the most significant problems in the world [23] which are no less great than superheroes as fictional characters. However, this phenomenon will be more complicated when gifted students with their competence and abilities being underachiever, the dropout is caused by potential which is not explored well. Therefore, gifted students need to get the special and proper services, especially in the school. This is being more important when it is known that 18-25% of gifted students getting dropouts, feeling bored or frustrated [23]. Recognizing the importance of this problem, the detail of the concerns that might be occurred on gifted students if their potential does not explore well will be explained as follows.

E. Underachievement

Underachiever is a phenomenon that can be experienced by some gifted students and often occurs during high school education [24]. The problem of gifted students being underachievers tends to the problem of how the competence and motivation can be developed in accordance with their potential optimally. Based on that problem, the gifted students' intelligences and specific competences make some countries categorized them into extraordinary students [13]. Thus, to get the best service, they need to be handled by professionals (experts, educators, psychologists) and parents [22]. In this case, the government should take a role to support the gifted students directly as the responsibility in increasing gifted students' potential. Some countries may have included it in the law as collateral for their citizens to obtain appropriate education services.

Underachiever is also viewed as a complicated phenomenon [24]. Gifted students' ability in learning which is faster than their peers allows them to experience behaviors that are underachieved or have decreased performance and motivation caused by individual and

environmental factors [25] or failure in learning [26]. Therefore, the concerns about gifted students experiencing underachievers make many professionals think of the right solution in providing appropriate education programs to restore the potential that should be optimized. Morisano and Shore analogous underachiever students who graduate from school without intervention are considered as wells that have not been touched [23]. The National Association for Gifted Children (NAGC) describes several factors causes students being underachiever:

"1) social issues such as peer pressure; 2) psychological issues such as emotional sensitivities or perfectionism; 3) undiagnosed learning disabilities; 4) lack of interest in curriculum or curriculum is not challenging and engaging; and 5) low teacher expectations, especially with twice-exceptional, minority, and students from low-income backgrounds" [27]

Besides that, underachiever behaviour is related to dropout problem, this has long been one of the problems that worries policy makers, education practitioners and the general public [28]. Although there is no research that shows the existence of ways in overcoming this, it does not mean that it cannot be resolved. Professionals should have beliefs that there is no problem that cannot be solved. Thus, the government should try to think and find the way to help gifted students to not being underachiever and getting more achievements.

F. Dropout

As explained by Landis and Reschly that underachievement behaviour gives some concerns on the other aspects namely dropout [28]. Although, the dropout phenomenon can happen to everyone, but this is the serious problem if it happens to gifted students [29]. For example, this dropout phenomenon has happened to a student in Agam district, West Sumatera. Besides having high intelligences level rather than her friends, this student is fluent in speaking foreign language such as English, Malaysia, Indian, and Mandari for 10 years old [30]. However, unfortunately she cannot continue her school and only get a chance to learn in the school for six months. She cannot continue her school because she did not have money to pay the special teacher. That phenomenon showed school's disability to provide teacher for facilitating gifted students' competence, especially for family with low economic background being one of factor that should be considered by the government. Besides the economic problem, dropout is happened because of students' psychological factor such as stress and non-conventional life styles (e.g. using drugs, friends and bad environment) [29]. The discrepancy of the result that expected from gifted students to be a concern which is confusing professionals and government. The fact shows that the dropout of the gifted students causing the negative life of gifted students [31]. In line with this problem, there was a news that students with good achievement in the school was caught, because of stealing a car in Depok, West Java [32]. Some cases like this seems to be pathetic. The abilities that can be developed well destroyed because of his action.

There is uncertain data about the dropout students of gifted students in Indonesia until now, this seems that this problem has blinded educators and other professionals to identify possible failures of gifted students. This phenomenon has shown that some gifted students do need special handling. The failure is not something that impossible to occur for gifted students. Mentoring or counseling is needed to facilitate gifted students with their self-problem. The failure of gifted students needs some research to know the extent of gifted students' problem before developing a special program for gifted students, because some phenomenon can happen unpredictable. So that, the government with its role needs to do some research about the existence of gifted students to minimize the risk which can be occurred on gifted students. Thus, the problem before will not happen anymore and the negative impact can be minimized, both underachievement and dropout of gifted students.

G. Suicide

The incident of gifted students who commit a suicide may be quite shocking. Event ought this incident have a little possibility to happen, but a research which is done by Cross, Cassady and Miller has found that the suicide is happened on gifted students. He said that female gifted students have greater risk than male gifted students [33]. In line with this, the suicide has happened on student of secondary school in Blitar, Central of Java. The student suicide because he stressed after knowing the policy of zonation system [34]. Not only that, it is known that since 2015-1018 the phenomenon that gifted students with great achievement in the school ended their life by suiciding, three of four students were female and one student was male [34], [35], [36], [37]. That incident besides being a blow and a loss for the nation because it has lost some potential that should be an asset in advancing the nation, the government needs to do an evaluation to avoid the possibility of re-occurring. Although the ratio of these incidents is very small but with the existence of these incidents on gifted students, this shows that the government needs to do some actions and gives more attention with its mind and energy to facilitate the abilities of the gifted students. Hence, the existence of gifted students can be known and accepted for their great achievements to make the nation and country proud.

H. The history and education policy of gifted in Indonesia

Seeing the urgent and the concerns which is happened on gifted students, so it is appropriate for Indonesian government to be one of countries which tries to develop the curriculum for gifted students. As we know generally, developed countries such as America has done the curriculum development for gifted students firstly. At least there are around 18 gifted students' program in Canada [3]. Seeing the number of gifted students' program which is done by that country, how about gifted students' program in Indonesia? The history records in Indonesia has given scholarship from elementary school until higher education for gifted student in 1974-1989. Indonesia government also created a team for developing gifted students' education and as the result is pioneering education services for gifted

students using enrichment programs. [38]. The awareness of the importance of the potential of gifted students, the government provides another effort by providing an umbrella in Law no. 2 year 1989 concerning the National Education System article 8 paragraph 2 that "citizens who have extraordinary abilities and intelligence have a right to get special attention".

Along with the development of world civilization, in 1992-2002 the government continued to provide other efforts by publishing policies on the implementation of Excellence School, Plus School, and Learning Acceleration Programs in all provinces to develop the diversity of talents and creativity of gifted students. In 2003 the government writes amendments of constitution no. 2 of 1989 became constitution no. 20 of 2003 about the national education system. the latest constitution provides more specifications of special education as stated in Article 32 paragraph 1 that "Special education is education for students who have difficulty in following the learning process due to physical, emotional, mental, social, and / or having abnormalities potential intelligence and special talent. After that, in one decade after the publishing of constitution No. 20 year 2003 the government showed its concern again by providing the guidance, and inclusive education services as well as the management and implementation of special education for gifted students through the Minister of Education Regulation no. 34 of 2006, *PERMENDIKNAS* No. 70 of 2009 and Government Regulation no. 17 of 2010 [39]. The effort will be continued because gifted students' competence and achievement have important role as the golden generation in facing the global competition.

I. Pro-Contra gifted students program development

Based on previous reviews, the Indonesian government has a good history in supporting and paying attention to gifted students through some policies and programs to facilitate gifted students' potential. The programs which are provided by the government are believed to have a positive impact on gifted students. From several programs that have done, the most effective program in the implementation and practices are acceleration programs. This program is believed as the proper solution to provide education services for gifted students because gifted students have academic maturity or learning faster ability than students in general [10], [40]. They have also been proven that they can be developed to be adolescents or adults faster than their peers and need more challenges and social experiences according to their maturity, it aims to help gifted students in finding and perfect their talents [41].

The success of the learning acceleration program, in fact does not provide a fully positive response. Despite of the lack of any program that has been pursued by the government, the usefulness of various programs that have been released by the acceleration program has become the program which shows many good effects. This positive effect is felt by some higher education directly that recognizes the graduates' abilities of acceleration program to success 100% in selection of new students' admission through "invitation path" [42]. Other sources obtained evidence of academic reports from SMA Negeri 8 Jakarta in

2015 and 2016 recorded 16 of 18 students who took the acceleration of learning program had passed the selection and were accepted as students in various domestic and foreign universities [43]. However, after the change the Ministry of Education and Culture, the results of the achievements made by the previous government did not receive a fully positive response. The current government has a contradictory opinion on the acceleration program in which that program needs to be stop because of three factors: (1) students' learning hours are compacted; (2) the students selection is not based on IQ score but only based on academic score in the school, (3) Students do not have time to build personality [44]. In addition, the acceleration program is considered as a less good program for the mental of age of gifted students which is assumed that students with acceleration program may get failure in older age such as a divorce [45].

That perspective certainly reaps a variety of reactions; one of them is come from Arnis Silvia, a Postgraduate Research Student at the University of South Australia who considers that the government's suspicion is not based on the findings of empirical research, concluding that the high divorce rate is the impact of acceleration programs is too fast [46]. Thus, in 2015 the acceleration program was officially stopped, and the government gave a new program based on interests published through the Republic of Indonesia Minister of Education and Culture Regulation No. 64 year 2014. This program is created by adopting the popular program in America namely Advance Placement [47], [15], [48], in which that program consists of three models; specialization, cross interest and deepening interest [49], [50]. Unfortunately, the decision which is taken by the government seems to be in a hurry. Hence, the existence of the deepening interest program which should have the same popularity and successfulness in its country is still unknown. Besides that, it needs s reliable resources, the government should also provide permissive and flexible policies. The authority of schools in providing specific program helps school to develop the program contemporary to facilitate gifted students who need flexibility in learning. Similar with Canada where this country supports the gifted students by providing supporting program from the permissive and flexible policy [3]. The influence of education policies which is made by the government is incoherent to all area but giving reins for the legislative of regional [51]. Thus, the local area has the freedom to give or make decisions at the school level to determine who, how and when special programs is conducted, including the accelerated options that will be offered [40], [13]. It seems that Indonesia government needs to learn more and considers this problem, not only see the popularity of Advance placement but also need to consider some aspects of the culture, geographical location and human resources in determining or developing gifted students' program properly in the future.

III. CONCLUSION

The Abilities or competences which is identified as gifted students should receive special attention. Even 80% of teachers believe that gifted K12 students need special attention and their future will be the leaders in the country

and their talents will enable them to play an important role in competing in the global economy [52, 53]. In line with this, Young and Balli believe that the high achievements of gifted students show that they would be among the future leaders and innovators [54]. If the government gives the best attention and service to gifted students seriously, there will be no longer a puzzle of why gifted students are relatively neglected in education programs. The abundance of creative development in art and science arises from gifted students and closely related to policy [54], [13]. This shows that the success of a program in overcoming gifted abilities cannot be separated from the role of the government in providing a policy.

As was known in the previous review, Indonesian government has given considerable attention through some programs for gifted students. The existence of a trace of efforts shown by the government in fulfil and improving the quality of education services for gifted students needs to get appreciation and support from various parties. If there is a lack of program which is given by the government, evaluation is needed to the ongoing program. At least the government can consider three aspects as a material consideration of the revision of the program, namely (1) Criteria for the acceptance of gifted students which is not only based on IQ; (2) Provide flexible policies for each region in developing gifted programs; and (3) Making standards as a reference for the development of gifted programs. Recognizing the programs that refer to the standards made by NAGC and many programs that show positive results, we recommend the Standards made by NAGC, they are CEC Teacher Preparation Standards (Council for Exceptional Children) and Program Standards [55] that can be used as a consideration in developing programs. Indonesia government can learn how NAGC revises the program, besides by forming work groups NAGC are guided by the following principles: (1) Gifted is dynamic and continues to develop; (2) Gifted is found among students from various backgrounds; (3) Standards must focus on student outcomes rather than practice; (4) All educators are responsible for the education of gifted students; (5) Gifted students must receive services throughout the day and in all environments based on their abilities, needs, and interests [56]. The reference is used as a basis for stakeholders to equalize the frequency in making or revising gifted education programs.

Furthermore, the alternative that is possible for schools to provide gifted program services is through enrichment programs, cluster grouping, and inclusive models. With a require that schools which wants to provide gifted students services needs to pay attention to the readiness of teachers in facing gifted students' competences and abilities. The school can refer to the teacher preparation standards made by the NACG, they are: (1) Developing the potential of students and understanding the different ways of learning for each individual; (2) Creating a safe, inclusive and responsive cultural learning environment; (3) Providing knowledge of curricular content in general and specifically; (4) Using various assessment methods and data sources in decision making; (5) Conducting planning and instructional strategies in selecting, adapting and using repertoires as

evidence-based learning strategies; (6) Providing basic knowledge from the field and the principles of professional ethics and programming standards; and (7) Collaborating with families, other educators, related service providers, and community institutions in culturally responsive ways [57]. The preparation standard is carried out by NAGC to minimize the negative impact that might be occurring such as underachiever, dropout of school and suicide which is explained before. Other possible impacts can occur unexpectedly. Hence, in this case the government needs to facilitate the equalization of teacher competencies or helps schools that undertake the provision of gifted education through the teacher preparation selection process. The government can also work with stakeholders who are ready to provide gifted education services by conducting the same selection stages to minimize the impact that is feared. In addition, in the course of writing this article the author has difficulty to get the information on research of gifted programs currently. Thus, in this case the researcher still not know known how the effectiveness of the gifted student's program is? What benefits do students feel in the current program? How is the graduate program produced? How does the school respond to current policies? What efforts have been made by the school? How far is the school's readiness to implement gifted programs currently? What obstacles have occurred in the practice of implementing talented programs today? And there are many other questions that can be developed through research to find information about gifted programs today. However, it should be noted that each gifted program design certainly has strengths and weaknesses in the practice of handling the needs of gifted students, but this is important for further research.

ACKNOWLEDGEMENT

The author would like to say thank you to following parties for their extraordinary support in writing this article: Prof. Dr. H. Rochmat Wahab, M.Pd., M.A; Dr. Mumpuniarti, M.Pd; Dr. Nur Azizah, Ph.D., who has provided many constructive suggestions and comments and Yogyakarta State University has facilitated the process of proceedings to publishing, as well as parties that cannot be mentioned individually.

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