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STUDENTS WITH HIGH FUNCTIONING AUTISM (HFA) AND GIFTEDNESS (2E); DO THEY FEEL BORED IN SCHOOL?

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Abstract

High Functioning Autism (HFA) students that are gifted, either in academics or talents are always looking for new stimulating challenges when learning and at times are perceived as geniuses. They are categorized as 2E or known as twice-exceptional, where they are gifted but at the same time, they have learning issues challenging them. They do not face a lot of problems when learning in classes on the subject they like and are interested in but eventually have challenges when it comes to subjects that do not interest them. They are often easily bored if there are too many repetitions of learning or they are already well advanced in a subject and could be disruptive, in cases, which leads to others thinking that they have behavioural problems and severe learning disabilities. Their emotions also will be disruptive if they get bored and learning and focus will decline. They often have an interest or obsession towards a subject, making them way ahead knowledgeable than their peers their age in the subject. The research is aimed at finding if a lot of HFA/2E gifted students face boredom in school, be it government, international, or learning centers. Surveys were given out to 50 families with HFA students and additional interviews were done to 4 families. Hopefully, with the findings and suggestions, it could help the HFA/2E students to excel and contribute more in the future while controlling their emotions and needs that usually is triggered by boredom.

The support needed is not mainly from the school itself but also from family members and the need to have friends around.

Keywords

High Functioning Autism (HFA), Twice Exceptional (2E), Gifted

1. Introduction

Students, who are high functioning autism (HFA) or twice-exceptional (2E), would portray largely simultaneous features of a gifted student to add to a student with a disability, which was observed by Reis, Baum, and Burke (2014). These students usually are geniuses in some subjects but may suffer in some as they face challenges as seen in Figure 1 such as a high level of frustration, stubborn, manipulative, argumentative and other negative personalities in the 'Challenges' column. The identification of HFA/2E student could be determined by the high ability in a subject or topic that is advanced which could be seen in Figure 1 in the 'Strengths' part but at the same time, a disability trait could be seen, stated by Josephson, J., Wolfgang, C. and Mehrenberg, R. (2018).

From the Association of Gifted Children in Washington, it is reported that teachers may view a student as a bright, motivated student who perhaps enjoys STEM problems and is a walking encyclopedia on outer space expedition and planets and even tries to plan his or her Mars rover. The downfall of the student is that he or she is extremely quiet and withdrawn and does not have a lot of friends and does not have a lot of eye contact with the teachers or peers. Another problem arises when this bright student does badly in other subjects such as comprehension in English, arts and physical activities. The student can engage for hours in topics he or she cares about but can be interruptive and rude, often not paying attention in classes that do not interest them. These students usually have a high IQ, but have always been viewed as a student with behavior problem and these students are the 2E students, whom are gifted but faces individual challenges that contribute to their regression at school.

The consequences of not addressing the HFA and 2E students are not only combatting boredom in the classroom which comes with struggling academically, suffer depression and self-esteem issues and facing anxiety because they are not challenged enough, as seen by Hashimoto, N. (2020). The need to have a proper programme for HFA and 2E children have been recognized in some countries and places, where for example in Rockville, Marryland, the Montgomery Public School even has a guideline book for supporting the HFA and 2E students. When 2E children are recognized and supported, according to Dr Zamora, they eventually will do better in school and have much higher self-esteem (Arky, B. 2020). From

Bridges 2eCenter, it was highlighted that the need of supporting the HFA and 2E students is not only towards classroom teachers bur are also the challenges that need to be faced by the administrators, therapists and special education teachers and tutors.

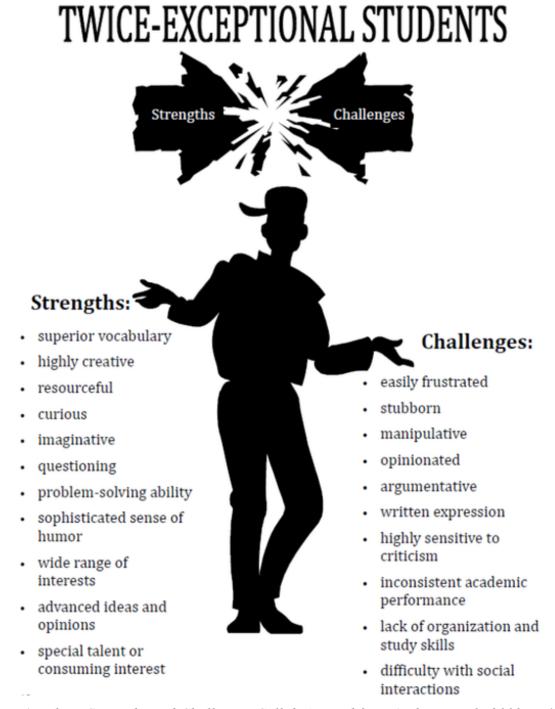


Figure 1: Where Strengths and Challenges Collide (copied from Anthony et al., 2009, p. 10)

2. Literature Review

The research on 2E students has increased significantly within the last three decades but the problem arises as the needs of these types of students are not essentially being met in their schools, and this was found out by National Association for Gifted Children (2013). While Ronksley-Pavia, M. & Townend, G. (2017) have viewed that the parents and the participants in their research believed that the teachers had inadequate knowledge about HFA/2E students' distinctiveness and were not prepared to provide for their unique and advance learning needs. As for the teachers who see the disability learning in the student that could be seen in Table 1, they would put their knowledge of teaching disability students and would respond in a normal standardized method that does not fit the students learning. The result will be a failure as the teachers and the school could not recognize the uniqueness of the 2E individuals, where the schools will categorize the students as an isolated disability student or to the extent of not being recognized with no term at all which leads to no help or intervention. The negative description of the learner as in Table 1, mostly occurs when HFA/2E students are bored or frustrated in class. From Dare, L. and Nowicki. E (2015), it was seen that the parents could view their children's frustrations and will need to make a strong support role, but they would need the resources in fulfilling this role. Schools would not entertain in offering HFA or 2E students a programme that could help them but what is highlighted will be their academic weakness and disabilities which just leads them to failure and these students could not reach their full potential self. From Amran, H.A and Abd Majid, R, (2019), the teachers must try to form a strategy to provide alterations and accommodations to the HFA/2E student's learning syllabus and environment after reviewing the student's strengths and potentials as well as providing all the support needed not only emotionally but also socially.

A study to observe the experiences of an HFA/2E student in a heterogeneous classroom, where the student was asked to write in his diary what he had experienced was done by Genç, M (2013). It was seen that in the subjects which did not attract the gifted student's attention, the student mostly shows no interest and does not listen and focus during the period. The student wrote that he loved to draw and that when he was bored he drew; and indeed, there were pictures in his diary. This situation is mostly seen when writing the results of the activities. The student finishes his assignment quickly and gets bored when waiting for his friends to finish and he draws. In one of his diaries, he wrote: "My friends are too slow in writing the results of the experiment. I am bored when I am waiting for them to finish

writing. So, I drew a car. If only that car was mine and if only it was as fast as neurons." Landau, B.M. and Paul, G. (2000), Millman (2012), Montgomery (2013) and Ziv (2000) have concluded in their findings that boredom is a protruding representative of gifted students during classes which always leads to troublesome behaviors.

Table 1: Characteristics of Some 2E Students According to Disability from Josephson, J.,Wolfgang, C. and Mehrenberg, R. (2018)

Characteristic of Some 2E Students According to Disability				
Twice Exceptionality	Description of the Learner			
Specific learning disability	Forgetfulness, difficulty with memory tasks, delayed reading skills, difficulty organizing their written or spoken ideas, delayed mathematical skills, a discrepancy between verbal and written communication.			
Emotional and behavioural disability	Easily frustrates, focuses on their limitations, poor self-concept			
Attention deficit hyperactivity disorder	Difficulty in focusing, disorganization, difficulty maintaining attention during less preferred tasks			
Autism spectrum disorders	The intense focus in preferred subjects, difficulty making and maintaining friendships, uncooperative behavior			

3. Methodology

3.1 Research Questions

The research question for this paper is, do the HFA/2E students feel bored in school and what is the how did the HFA/2E students get bored. These questions need to be answered to further acknowledge that the HFA/2E gets bored in school and if the reason could be identified, measures should be taken in the education world to help them learn and strive towards success. The questions of either the HFA/2E students get bored will be answered by their parents through a survey and observation of four different families.

3.2 Data

Online Survey

An online survey containing 14 questions was given out to 50 parents that have a child that is HFA and is considered 2E. The link was given to parents that are involved in MAHFAA (Malaysia High Functioning Autism Association) to answer based on their

HFA/2E child, where their children have been identified as HFA/2E students, they are gifted but faces challenges in school.

The survey towards 50 students that was done has shown that the HFA students usually feel bored at school, taking account for the whole day. For the various types of schools and institutions that provide education in a structured way, 64% of the HFA students feel bored which includes students attending government and international schools and established learning centers. As for the HFA/2E students that attended government school, several 76% of the students feel bored when attending it. This could be viewed in Figure 2, where the pie charts are showing the percentages that were quoted.

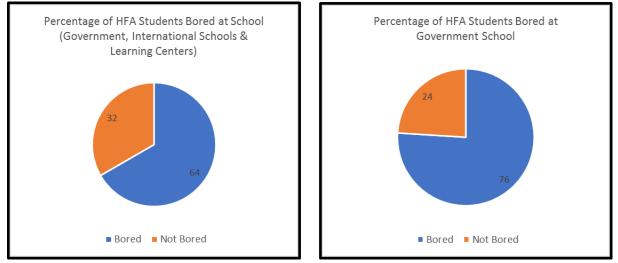


Figure 2: Pie Chart of HFA/2E Students that are bored in School (Results from Survey of HFA/2E Parents)

In the same survey given, some questions were asking if the HFA/2E students thought they are facing challenges in school intellectually, if their brains are getting stimulated and if they learn new things. Figure 3 shows that 78% of the HFA/2E students think the syllabus taught is boring as the students may be more advance than the syllabus given as the school is grouping the different syllabus by age rather than by IQ. Some parents that answered the survey saw a decline in their HFA/2E child in academics and currently it 35%. While a survey done by Council of Curriculum, Examinations and Assessment (CCEA) in 2008, has shown that some parents have seen their HFA/2E children facing problem in academics and their academic declines day by day. Over time, if these types of students are not well taught and helped, the percentages of HFA/2E students declining in academics could be more in the future.

Another question in the survey that was asked if the HFA/2E students liked their teacher, where 54% parents observed that their child does not like the teacher and could not

tolerate the teacher and another 22% group of parents said that their child dislikes their teachers but could tolerate them (Figure 4). When these parents were contacted and asked through WhatsApp, the general answer was that the teachers did not understand their child and blame the child if he or she misbehaves because the HFA/2E child is bored in the classroom. The group of HFA/2E students that likes their teachers seems to be the teachers that have had some exposure and learnings towards Autism children or children with learning disability and this was confirmed when the parents were asked why their children like their school teachers. This shows that the teachers engaging with HFA/2E children should attend courses and learn the way how to tackle these groups of children.

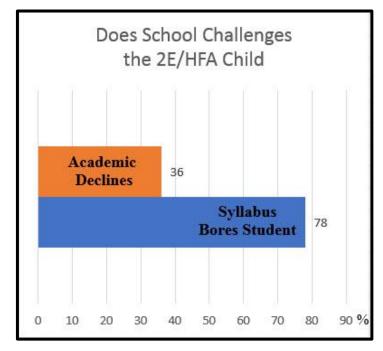


Figure 3: Bar Chart Showing HFA/2E Students are not Being Challenged Results from Survey of HFA/2E Parents)

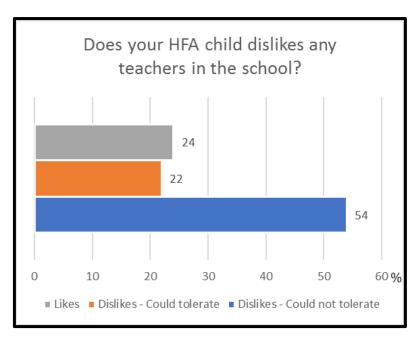


Figure 4: Bar Chart Showing HFA/2E Students Dislikes Teachers at School (Results from Survey of HFA/2E Parents)

Interview

Several 4 families with an HFA/2E child that goes to school or a learning center were interviewed and Table 2 summarizes the interviews. It could be seen that for all the students, they are advance in some subjects or topics. The column for 'Student's Age' is stating the age of the student but the 'Student's Ability Age' is stating the age that the current syllabus has for the age group that is stated and in what subject. The parents also pointed out the student's weaknesses in some of the subjects. From just 4 different students, it could be seen that if a student is way advance in Maths and Science, they may have some challenges in English and Bahasa Malaysia, where it is more of creating sentences or doing a write up that requires imaginations. These group of HFA/2E also has a problem to write and often gives up in writing long sentences, contributing to the thought to some teachers that these group of children are lazy as they can read and write but dislikes writing. One of the students in the observation is good in creating sentences and is literature savvy and could tell and make up stories and essays simply, but lack a bit of understanding in Maths. This student finds mathematic equations difficult and confusing but reading a novel like Jane Eyre or The Tale of Two Cities is fulfilling and fun.

It could also be seen in the summary Table 2, when the students are taught the syllabus for their age, all of them become bored and regress in school where they will misbehave and show all the signs as in Table 1, especially for the emotional and behavioral

disability and since all of them have autism, the traits will be shown as they regress in class. As in Figure 1, the bad behavior of the students arises and a list of it can be seen in 'Challenges', which happens because parents reported that they are bored learning fundamental topics by age group syllabus.

As three of the HFA/2E children are being supported by their families to learn by IQ group, it could be seen that they become more calm and willing to learn, even the topics and subjects that are not of interest. The boredom is being lifted to make way for more stimulating topics for them to ponder about and emotionally they become more stable and content. Socializing will be better for them as they will not feel the depression and low self-esteem that usually lingers around, especially when teachers point out that they misbehave and could not learn other topics than the topics they are interested in. Parents play a big role as if they could not send their HFA/2E child to learn more advanced topics, they will have to do it themselves for the sake of their children.

	Students Age	Students Ability Age	Student's Ability	Student's Poor Subject	Learning Syllabus By Age Group			
Family					Bored at School/Centre	Regress at School/Centre	Bad behavior at school when bored	Current Situation
1	7	15-17 15-17	Maths Chemistry	 English Bahasa Malaysia 	Yes	Yes	 Shouts and gets frustrated. Does not focus on what the teacher is teaching. Starts to show teachers that he can do more advance Maths and begin being disruptive. 	 Homeschooled and is learning by student's ability and IQ age. Music, gym and swimming lessons help with motor skills and imagination. Calmer and learns more.
2	7	12-15 12-15 12-15 15-17	English Public Speaking Grammar Literature	• Maths	Yes	Yes	 Cries and shouts at teachers. Does not want to follow what the teacher asks to do. Starts to talk in an advance manner and is disruptive in class, trying to show off that a simple word has other meanings uses jargon words. 	 Attends private international school but still faces issues as learning is based on age group and not by the student's abilities. Attends advance public speaking and essay writing classes. Opens up to learn science and Maths after the advancement English level is given.
3	9	12 15-17 15-17 15-17	Maths Physics Coding Gaming	 English Bahasa Malaysia 	Yes	Yes	 Shouts and gets frustrated. Disobeys teachers and uses logic to do things even if it meant not to follow teachers in the government school. 	 Attends private school and is supported by advanced gaming and coding classes to be content. Attends natural and outdoor classes to build imagination and understand reality.

 Table 2: Summary of Interview with Parents with HFA/2E Child that Attends a School or Learning Centre

							• Would not want to learn and at times goes out of class.	• Become more accepting to other subjects as learning advance coding and physics is given.
4	8	12 12 12 12	Maths Astronomy Space Science (General)	 English Bahasa Malaysia 	Yes	Yes	 Goes out of the standard 1 class to enter the standard 6 Maths class and answers on the whiteboard. Would not want to learn a subject that is not of interest. Often goes out of class and gets frustrated that leads to meltdown. Teacher's solution to engaging YouTube and isolation in the air- cond library is not helping. 	 Attends government school and is supported with additional knowledge with books and YouTube. Regressions have happened a few times. A meltdown occurs when no additional challenging topics and learnings are given.

4. Results and Discussion

4.1 Online Survey

The large number of HFA/2E students feeling bored in school will result in boredom that often turns into frustration and underachievement and dissatisfaction with the overall learning process. From the Council of Curriculum, Examinations and Assessment (CCEA), 2008, it was noted that the gifted achievers are the students, despite their gifts and talents continuously underachieve due to boredom, lack of interest, or wanting perfectionism, which categories the students into HFA or 2E students. The students face emotional problems, adjustment issues, intellectual disabilities or some may be underachieving due to just overall boredom, frustration, low self-esteem or stress. They often suffer due to teachers not believing that the HFA/2E students are advance in some topics and are being treated the same as an average student.

When the 2E students start to have negative emotions such as boredom, he or she will not focus on what is being taught and will simply shut them off or do other work or things to get them occupied. The boredom emotion would also create stress, where it has been seen that emotionally stressful school environments with poor management are non-productive as the student's ability to learn reduces, Sylwester, R. (1994). Emotions can influence learners at different stages of the learning process, where it can have a positive or negative impact on a learner's not only attention but the motivation, learning strategies and ability to self-regulate learning, Meilleur, C. (2019). Negative emotions in students can hinder the whole process of learning. Students will find it hard to focus and gain knowledge when they encounter negative emotions such as anxiety, fear of failure, embarrassment, the inability to understand what is taught, discouragement or boredom. All of this will happen when the HFA/2E students are bored in school.

In the challenges of teaching 2E students that are HFA, Salem, N. (2018) has stated that another disruptive behavior that personifies HFA/2Es was the phenomenon of these students who show a very great fascination with a concept/theme/comment or even a word cited during the lesson, where even if it occurred an hour ago, and the class has changed completely to a different lesson, the HFA/2E students will find it difficult to just change the subject if they have not finished thinking about it from their point of view and will remain to think about it even during breaks. These types of students eventually need help to breakdown free from the situation and would need to further learn to transition to other or different subjects.

For the HFA/2E students, to be successful in school, they would need flexible, multidimensional, customized support and services, where their strength and challenges differ as some students may need more time or less time to master or understand a topic or content and to have them less bored with what they are learning, as Gallagher, S.A. (2015) have taken it into account to meet the needs of these students. To help fight the boredom that the HFA/2E students face, improving the construction of syllabus which can stimulate curiosity, with good information, adding to reasoning options, the openness of thought that are flexible, clarity in questions given, the possibility of diligence in searching for relevant information and other ways for them to apply their ideas and methods, Stojanović, A. (2018). The HFA/2E students do feel the importance of cognitive competence, as well as effective temperaments as they truly comprehend the importance of the process side of critical thinking. To eliminate the boredom and create an atmosphere to learn, it comes back to their cognitive skills, on the way they think and how they approach and also how they form the ideas and concepts to expand their understanding and intuition, where the educators will have to play a big role in catering it.

4.2 Interview

The first family's son regressed badly and misbehaved when previously going to a private international school where learning was according to the syllabus by age group but started to show his strength as listed in Figure 1 and his challenges fade away when he was taught Maths, Add Math and Chemistry at the O levels syllabus, even though he was only 6-7 years old at the time. Emotionally he became happy because he was not bored learning new stimulating lessons. Quoted from Kaufman, B. (2018), "I dream of a day in which every single student would obtain their individualized educational plan and could be challenged appropriately and supported all the way.". His theory of Personal Intelligence (Kaufman, 2013) contends for a change from a traditional educational prototype to supporting the students' own exclusive individual goals, hopes and dreams, so the students will be emotionally happy and content, plus fully engaged in their future. The second family, with an HFA/2E girl who can converse with proper grammar and jargon words, tends to regress and shuts out of the world, screaming and crying and refusing to learn when taught only basic English for a 7-year-old. She wanted to write her own stories and talk publicly about etiquette and manners while trying to read more literature books. When her parents sent her to public speaking classes and essay writing classes that are

more advanced than her age, she becomes well-mannered and had the interest to learn, even other subjects such as science and Maths.

The other two families that participated in the interviews had the same problem, their child is always being disruptive in school and refuses to learn as they are bored and starts to be depressed and frustrated just by going to school. A connection between emotions and learning were looked into by Lawson, C. (2002), where emotions such as boredom, anxiety, depression, frustrations and anger, all could interfere with a person's learning that results with problems to learn, equaling to self-defeating behavior that will prevent learning and prevents further mental or emotional growth towards us. All these children show a decline in learning and academic knowledge when forced to learn things they already know and well mastered at. All of the HFA/2E students start to flourish and focus more when they are given new topics to learn which stimulates their brain and creates daily challenges for them. Differentiated programming, which includes gifted programs, are an important way to retain the HFA/2E student's gifts and abilities, where they are challenged at all levels and will be motivated to learn, Tyner, A (2018). From Barrington, K. (2019), teaching HFA/2E students have different desires and management, where providing teacher training in gifted education strategies would help the most.

5. Conclusions and Recommendations

Schools and teachers should know how to identify HFA/2E students and help them flourish rather than forcing them to go with rigid syllabus. The syllabus for students should be IQ based rather than age-based as different students have different levels of understanding, especially HFA/2E students that are usually far more advance in certain topics. The boredom from HFA/2E students encounters at school is because they already know what is being taught and are always ahead not one but maybe 4 or 5 steps from their peers in the same age group. Teachers that do not know about this just treats the students as a student with a disability if the students do not want to learn.

HFA/2E students that are advance in certain topics should be taught at their level to abolish the boredom they face which later will highlight their disability more. If a student could already understand O or A level topics, even though the age is just 7 or 8 years old, the teachers and school should support, but the biggest support should come from the parents. Another

example is if a student at the age of 7 shows great ability in reading, writing and debating on world current issues, environment and political matters, teachers and parents should prepare the environment around to support the student so that he or she will flourish more in the area that they are good at. Advancing a young HFA/2E student is not forcing them to grow too early as learning can be advanced but the playtime and the activities of a normal young child should be done happily and playfully as children learn more by playing.

Supporting the HFA/2E students requires a lot of work and to eliminate the boredom they face daily at school that caters to age range subjects and topics, a lot needs to be made. Parents play a much vital role as if the teachers and school could not help, parents will be the source of help needed from these students. As for teachers, the Ministry of Education would need to work with researches and parents of HFA/2E students on how best to train the teachers to recognize the HFA/2E students and how to teach and help them succeed. A clinical psychologist, Ohkauchi, O. (2012) has concluded that the schools would need to provide classes that HFA/2E children can understand and participate without boredom and frustrations. Teachers should be identifying HFA/2E students that are exhibiting behavior problems in the classroom and provide advice and consultation to further address their behavior into positive emotions so that the learning can kick in.

Most importantly, going forward, NGO's such as MAHFAA (Malaysia High Functioning Autism Association) needs to work and collaborate with the government on how to have the correct environment for the HFA/2E children. A lot of countries have implemented strategies and guidelines and these can be a basis to be implemented in the schools in Malaysia largely.

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