



Student Voice on Teachers' Attributes that Resulted in Positive Learning Outcomes for Students with SEN in Mainstream Schools in Singapore

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Abstract

The Singapore mainstream classroom is seeing increasingly diverse learning capabilities. Although there is growing involvement of students in educational research, there is little done from the perspectives of students with Special Educational Needs (SEN) in Singapore. To bridge this gap, this study investigated the perceptions of students with SEN on teacher attributes and student outcomes in mainstream classrooms in Singapore. In a focus group setting, five students (aged between 14 and 16) were asked to share their opinions and thoughts based on their school experiences regarding teacher attributes that led to positive student outcomes in an inclusive mainstream classroom. Pictorial cards and the Diamond 9 ranking approach were used to help the students describe their experiences and rate the teacher attributes and student outcomes. 'Respect', 'caring' and 'patience' were top ranking teacher attributes that the students felt are important to their learning in school. For student outcomes, self-concept in terms of self-awareness and how they performed in relation to their peers were found to be important benchmarks. These outcomes were more important than 'praise and rewards by teachers' and 'competition with their peers'. The study also raised issues around victimisation and development of reciprocal friendship, and the teacher's role in helping to overcome or enhance such experiences in an inclusive classroom setting. Teacher training was highlighted too, particularly in developing skills and knowledge to handle a classroom of students with diverse learning abilities.

Keywords: Special Educational Needs (SEN), teacher attributes, learning outcomes, student voice, dyslexia, focus group, Diamond 9.

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INTRODUCTION

Although Singapore has been a member of the United Nations Convention on the Rights of the Child (UNCRC) since 2009 and ratified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2013, there has been limited research carried out on inclusive education in Singapore.

In Prime Minister Lee Hsien Loong's inauguration speech in 2004, explicit mention for Singapore to be a more inclusive society was publicly announced (Poon, Rao and Wettasinghe, 2013; Walker and Rao, 2016). This resulted in government policy changes with major increase in funds to support children with mild disabilities through professional development of teachers and redevelopment of school infrastructure.

Poon and colleagues (2013), reported that in 2006, the prevalence rate of children with SEN was 1.2%, with about half of these children in mainstream schools and the other half attending special schools. However, they noted that this is likely to be an underestimate, as the reported incidence among preschoolers for the same period was around three times higher. In comparison, Scherri and Schulte-Körne (2010) reported that the prevalence rate of developmental dyslexia is between 5.3-11.8% in the United States, whereas in Hong Kong, around 9.7-12.6% prevalence rate was found (Chan, Ho and Tsang, 2007). Furthermore, Schumacher, Hoffmann, Schmal, Schulte-Körne and Nöthen (2007) noted that as many as 20% of children with dyslexia were also diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). They further stated that in adolescents, social behaviour disorder was also often associated with dyslexia. There is therefore a relatively high prevalence of students with SEN in the mainstream schools although many of them may go undetected.

Learners Voice

Niemi, Kumpulainen, and Lipponen (2015) noted that students are more vocal nowadays and are better at articulating their views and opinions on important issues relevant to them. Recently, there has been an increase in the involvement of students in educational research and their involvement as respondents in research studies are giving them a voice on important issues (Clark, 2012). Therefore, the purpose of this study to provide a platform for students with SEN to articulate and share their thoughts and experience on teacher attributes that have positively influenced their learning at school.

Research Questions

Most studies have directly surveyed or interviewed teachers to get their perspectives. However, in view of the growing involvement of students in educational research, the perspective of the students receiving instructions from these teachers is particularly important. This is even more important when it concerns the qualities and attitudes that

have helped or hindered the learning outcomes in school of students with SEN.

The following gaps have been identified:

Gap 1 – Little research has been done in understanding the impact of teachers' attitudes on the integration of students with and without SEN.

Gap 2 – Little to no research has been done from the students' perspective on the attitudes of teachers' regarding the impact on them as well as their own perceptions of inclusive education in Singapore. In particular, for students with SEN, these actions by the teachers may have affected their integration in the classroom environment.

To bridge these gaps, the corresponding research questions are:

Research Question 1

What are the key teacher attributes that students perceived to be critical in creating a positive learning environment in an inclusive classroom?

Research Question 2

What are some of the positive learning outcomes achieved by the students as a result of these positive teacher attributes?

The mainstream classroom will continue to see an increasing number of students with SEN that require specific learning support in school despite the tandem growth in special schools for students with more severe learning disabilities (Poon et al., 2013). Walker and Rao (2016) argued that this continuous growth and awareness of learning disabilities in Singapore makes it critical for us to recognize the importance that attitudes of teachers play towards inclusive education. This will mean that the right policies and practices can be put in place to support the unique educational system in Singapore due to our multicultural and multi-racial society. This research therefore aims to provide a better understanding of teacher attitudes and mind-sets towards students with special learning needs, and what changes may be required to build a better learning environment for them to achieve to their fullest potential in school.

Definition of SEN – for this particular study, students with SEN is defined as students who are diagnosed with Dyslexia, Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD) as they are the three main disabilities found in the mainstream schools in Singapore. (Chee et al., 2015).

LITERATURE REVIEW

In 2004, a key theme was for Singapore to be an open and inclusive society, where a cohesive community lives in harmony together with the disabled. This created new opportunities for students with SEN in Singapore, together with the provision of support in mainstream schools for these students through the Teacher Trained in Special Needs (TSN) (Chee et al., 2015).

Trend towards inclusive education in Singapore

Starting from 2005, the Ministry of Education (MOE) allocated at least one trained staff to support the learning needs of students with SEN in all primary and some secondary schools. These professional trained staff, called the Allied Educators (learning and behaviour support) or AED(LBS), will collaborate with mainstream teachers to help transition and co-ordinate students with SEN into the mainstream classroom (Poon et al., 2013).

Teachers in mainstream schools are trained by the National Institute of Education (NIE), which is an institute of the Nanyang Technological University (NTU). NIE offers teacher preparation programs at various levels, from degree to postgraduate diploma. All these levels include a course entitled 'Teaching and managing diverse learners in the classroom' that provides teachers with some understanding to support students with SEN. However, there is a growing concern from beginning teachers regarding their lack of specific knowledge and skills to make the necessary changes for a class of diverse learners in a group setting (Heng and Tam, 2006; Poon et al., 2013; Walker, 2016). Forlin and Chambers (2011) noted that even experienced educators have doubts about their ability to provide effective intervention for these students. Therefore, one of the biggest challenges that educators faced is the appropriate adaptations of the educational curriculum in mainstream schools such that children with special needs will be able to learn alongside their peers without feeling frustrated when they are unable to keep up.

Teachers attitudes and their impact on student outcomes

Many studies have shown that teachers have significant impact on the learning outcomes of students and that these outcomes have strong correlations to the success of implementing inclusive education systems (Lim and Sang, 2000; Chee et al., 2015). Studies have also indicated that with more exposure to students with SEN, positive teacher attitudes will become even more positive. Goncalves and Lemos (2014) argued that a critical role of a teacher is not only to promote positive interactions among students with and without SEN, but also to provide information and knowledge. This helps to deepen the understanding of students with SEN which will further support the development of reciprocal friendships so that students with SEN can experience positive social interactions and acceptance in an inclusive setting.

On the other hand, some studies found that teachers with negative attitudes towards children with SEN might find it difficult to change their own behaviour over time. Nonis and Jernice (2011) conducted a longitudinal study to compare the acceptance rate of teachers on including students with SEN in their classrooms. The study found that there is no increase in the acceptance of students with SEN over time, with a potential consequence that such negative teacher attitudes could lead to low expectations and therefore lesser opportunities for these students to reach their full potential in school.

A study by Kususanto Ismail, and Hazri, (2010) further found that teacher behaviour and expectations have significant influence on the students' self-esteem. The stigma associated with a SEN label, coupled with the negative perception teachers have on these students, can lead to bullying or victimisation (Hartley, Bauman, Nixon and Davis, 2015) and loss of self-value or self-esteem (Kususanto et al., 2010; De Boer and Pijl, 2016).

Robinson (2017) pointed out that another major area of concern was what constitutes effective inclusive teacher education for special education needs. Scotland and Finland were cited as countries whose education system are able to respond to diverse learners by enabling participation, with a particular focus on the inclusion of learners with SEN in the mainstream classrooms. As Singapore aspires towards greater inclusion in our education system, there is much we can learn from these countries.

Although there are many studies from other parts of the world about teachers' attitudes towards inclusive education, such studies are found lacking on teachers in Singapore (Chee et al., 2015). Narrowing this knowledge gap is important to implementing a successful inclusive environment in Singapore mainstream schools.

Student perspective on class interaction and support

Research results have indicated that in an inclusive classroom, students with SEN often felt academically inferior to their peers (Weber and Freund, 2017; Schwab, Sharma and Loreman, 2018). Recent research further shows that these students with SEN are less socially participative as well. Schwab et al. (2018) studied data from 1,115 students in primary and secondary schools in Austria, age ranging between 10 to 14 years old. Of these students, 129 were diagnosed with specific learning differences. The results showed that students with learning difficulties scored lower in all four themes of the study (i.e. they made less friendships, had lesser interactions, were not well accepted socially and had more negative self-perceptions of their social integration when compared with other students who did not have learning difficulties). These results were consistent across all age groups and indicated that students with SEN had lower social participation in schools.

In Hopkins (2010) research on classroom settings for effective learning, she focused on

the views of the students, aged between 11 to 14, on the support and environmental factors in the class that lead them to appreciate the learning process and be recognised when they performed well. She also incorporated the card sort exercise (or Diamond 9 ranking system) to gather further material about the comparative importance of the classroom conditions. The results showed that the most substantial condition that led to higher satisfaction in classroom learning was the quality of the social interactions created by the teachers in the class. According to the students, teachers need to show respect to them as individuals; provide positive reinforcement when they make good progress as well as give clear instructions and explanations on their subjects. Being an expert in their subject matter was not considered as important as the teacher's ability to effectively interact with the students. For student achievements, the most effective way was to provide targets that the students can work towards; include comments on how to improve as well as provide praise when they have demonstrated achievements towards the target. The students ranked rewards of lower priority and importance.

O'Rourke and Houghton (2008) studied the perceptions of secondary school students on academic and social support mechanisms in the mainstream inclusive classrooms. Each response option has an emoticon-like facial expression, which were found to be extremely useful in previous studies. The results showed that mechanisms that focused on good teaching practices were positively correlated to academic success. Working together with their peers on projects were rated highly by the students, which they deemed as a positive social outcome for them.

RESEARCH METHODOLOGY

Due to the limited research on this topic in Singapore, a qualitative approach will be used as it is more suitable for exploratory research (Dare, Dare and Nowicki, 2017). Dare et. al. (2017) further noted that a qualitative approach is particularly useful for relating to social issues like inclusion.

Focus group interviews will be conducted to examine student's perspectives towards the research questions being investigated. This approach has been proven to be effective at accessing the learners' voice, or capturing the experiences and perceptions of individuals (Hopkins, 2010).

Participants

The participants of the focus group consist of 2 boys and three girls who are all studying in different mainstream secondary schools in Singapore. The age of the participants ranges from 14 to 16 years old and are all formally diagnosed with Dyslexia and are currently receiving remediation for their dyslexia at the Dyslexia Association of Singapore (DAS). All the participants were assessed to be dyslexic when they were in primary school and have received intervention both at school and with DAS for at least 4 years.

Research Design

This study will use a focus group consisting of 4 to 5 secondary students with SEN (ages between 14 to 16 years old) who will be asked to articulate their thoughts on what actions or behaviours created a favourable environment in their classroom. Specifically, the students will be asked to share their experiences and opinions on what teacher attributes and actions contributed positively to their learning journey in the mainstream classroom using the Diamond 9 approach. The students will be tasked to sort and rank the items in a diamond formation as shown below.

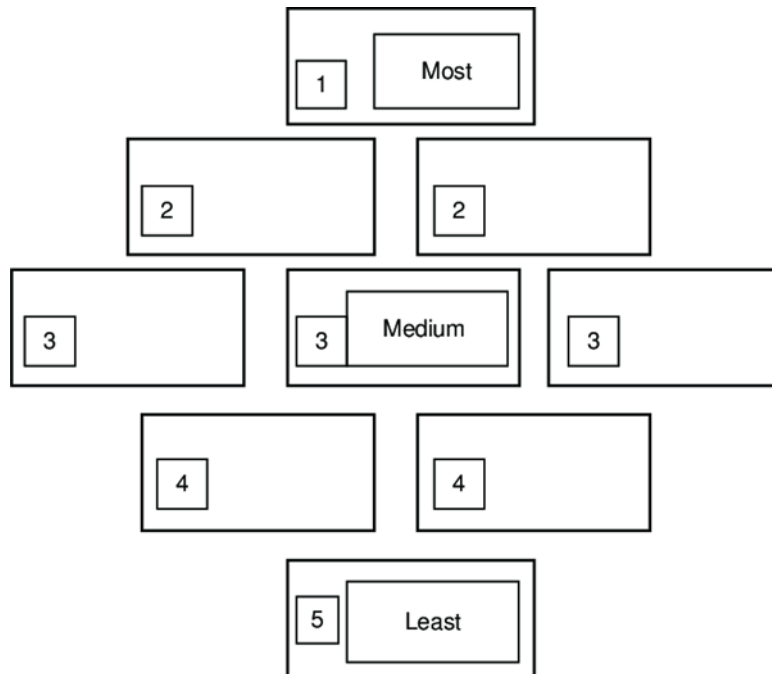


Figure 1 Diamond 9 ranking

As explained by Clark (2012), the tip of the diamond (Row 1) is for the top ranked item. Following that, the next two highest ranked items are placed in Row 2. The ensuing three items, placed in Row 3, are generally neither important or unimportant and considered of neutral significance. The next two items (Row 4) and final item (Row 5) are those that are ranked as of having the least importance. However, the positioning of the items is not the main takeaway of this exercise. More important is the process of arriving at these rankings through lively debate, interactive and reflective exchange of ideas, engaging in negotiation of the rankings as well as the eventual arrival of consensus after taking into account other views and perspectives.

Data Collection

The participants of the focus group are students of the researcher and this will be conducted in their classroom at Dyslexia Association of Singapore (DAS), a familiar setting for them. This will ensure that the students feel comfortable and secure, and are able to open up their minds to contribute to the research. Gill et al. (2008) argues that a pre-existing group that is familiar with each other and have shared experiences in the particular issue of interest may be an ideal research sample. They will feel at ease in engaging in the group discussions, as well as reflecting and challenging one another's ideas, which will facilitate the contribution of meaningful and concrete evidence to the topic.

The diamond-ranking activity will be used for students to work together and rank a set of nine pictures on teachers' attributes, with the most preferred at the top and the least preferred at the bottom of the diamond shape. The participants will also annotate the diamond with comments and explanations. In order to cue the students' conversation, picture cards will be made in advance to help the students. Students will also be given empty cards to add their own qualities if the suggested cards do not adequately represent their views.

In the first research question, students will be asked to reflect on teachers who had made their learning process in the class enjoyable. Refining and adapting from the findings from several researches on this topic (Hopkins, 2010; Mahat, 2008), the following are nine suggested teacher qualities with corresponding pictorial representation that will be ranked by the students (see Figure 2).

For the second focus group question, students will deliberate on how the actions undertaken by the teacher have helped them feel more included in the classroom despite their learning difficulty and thereby resulting in positive outcomes. These can be in terms of either positive academic outcomes or positive social outcomes, or both. Similarly, below are some suggested outcomes adapted from some research studies (Dare and Nowicki, 2018; Hopkins, 2010) which the students can expand or eliminate. They will need to come up with nine outcomes and rank them according to the Diamond 9 method.

A pilot focus group discussion was conducted to validate the use of the picture cards as well as the key terms and examples used. They were asked what each card meant to them and whether there is a common understanding and agreement that the suggested qualities are indeed relevant. The purpose is to identify improvements to the process and any unanticipated problems in carrying out the full discussion due to logistical or procedural challenges.

1. Patient – provided additional time to complete at his/her own pace
2. Caring and kind – makes the student feels included in class activities
3. Treated with respect – not labelled as slow or different
4. Treated as individuals – know students by name and remembers their strength and weaknesses
5. Humorous – able to use humour to ease class tensions and stress
6. Interactive lessons instead of instructive
7. Praise – provides timely and specific praise
8. Sets clear Goals – achievable targets jointly established
9. Clarity – good knowledge of subject-matter and able to explain new concepts clearly and give valid examples.



Figure 2 Teachers attributes – pictorial cards and their respective description

1. Feeling good to be at the same level as peers
2. Classmates able to see me do well
3. Being told by the teacher that I am doing well/have improved
4. Reports showing improvement in grades
5. Having lots of friends
6. Being competitive and doing better than peers
7. Great comments on my work
8. Being rewarded for my work
9. Meeting all the set targets and goals

Figure 3 Positive academic and social outcomes

The flowchart below depicts how the proceedings were carried out (see Figure 4).

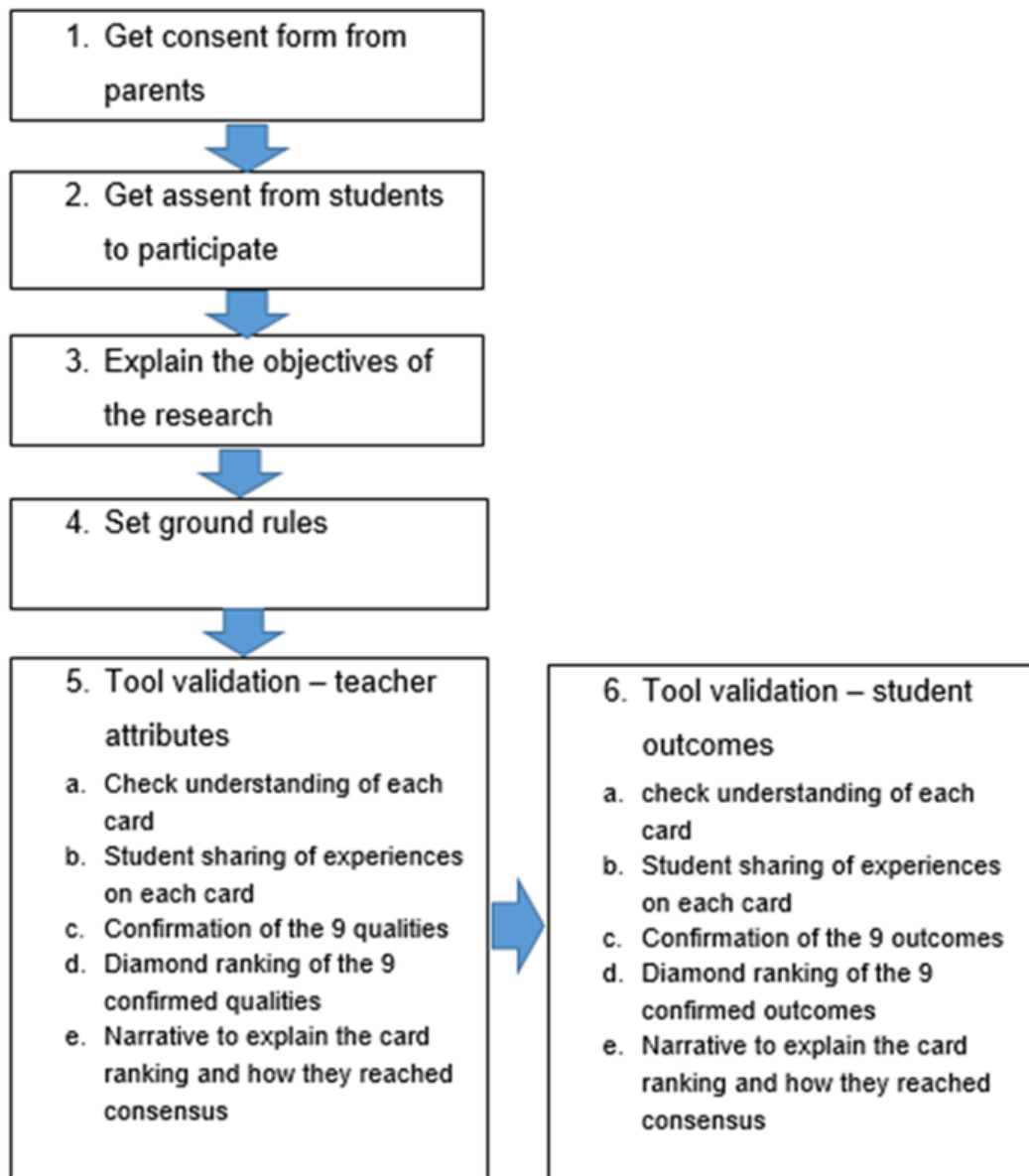


Figure 4 Proceedings of the focus group discussions

Data Analysis

Content analysis of focus group discussions was conducted using systematic coding and categorisation of information to determine key patterns and themes that were being raised. Following the full transcription of the voice recordings from the focus group discussions, the analysis was carried out using the procedure described in Figure 5 below.

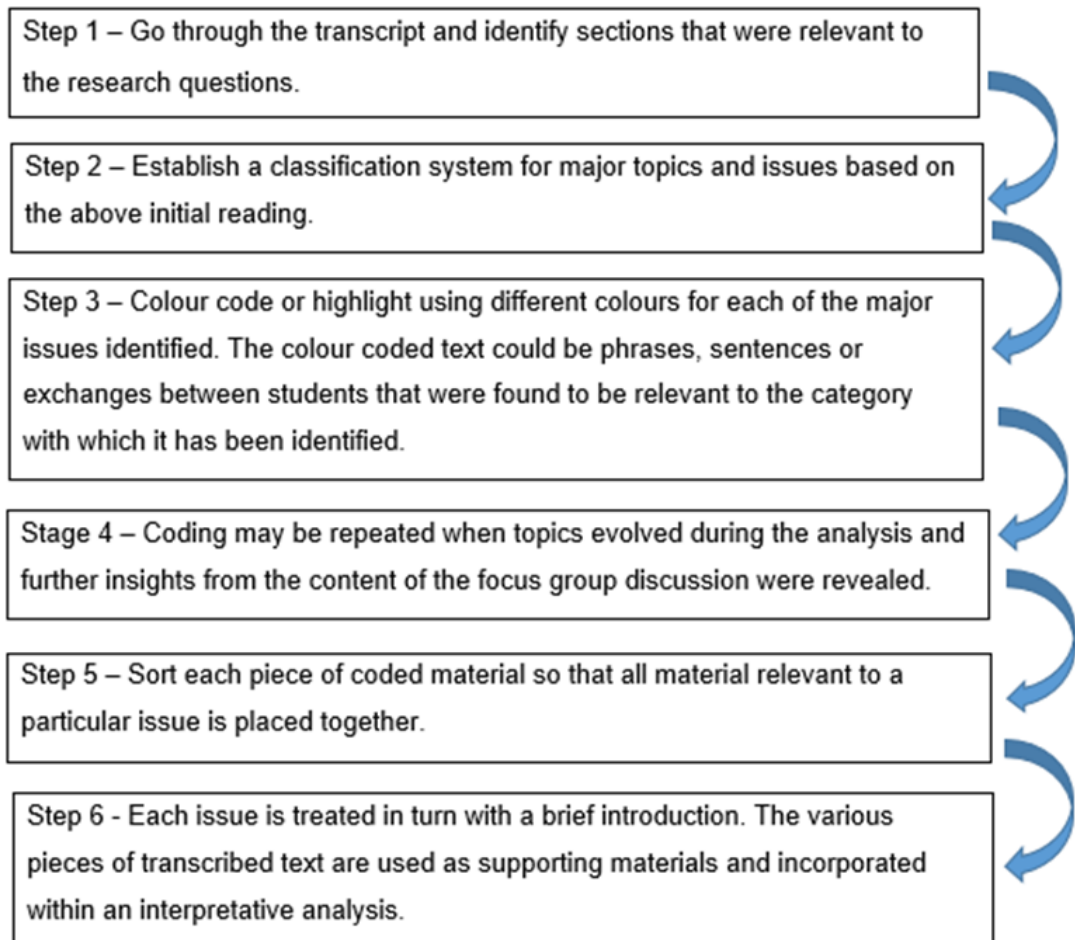


Figure 5 – Procedure of data analysis

RESULTS AND FINDINGS

The results of the two research questions are presented separately for ease of understanding but are discussed together to better understand the implications as a whole.

Results from focus group discussion on teacher attributes

The first research question was to understand, through the focus group, student's perception of different teacher attributes that have helped them in their learning journey in school. The Diamond 9 ranking and the rationale for the ranking of each attribute also points to their relative importance from the perspective of students with SEN (mainly dyslexia, in this study). The final ranking by the focus group of the nine teacher attributes are shown in Figure 6 below.

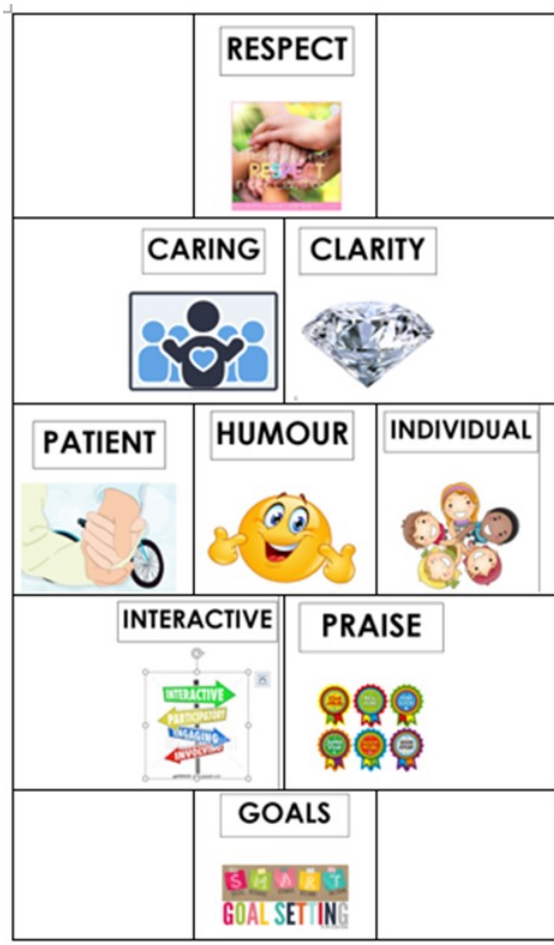


Figure 6: Final ranking of teacher attributes using Diamond 9

Several observations from the focus group discussion helped to enhance our understanding of the priorities of students with SEN on teacher attributes in the mainstream school as well as how the final rankings were derived.

Respect

Respect was unanimously ranked first by the students in the focus group. One of the students mentioned that this is a fundamental attribute because:

'if a teacher does not treat all the students with respect, then he or she will not show any of the other attributes like caring or patience, which are also important attributes to have in a teacher.'

Students pointed out that they are especially appreciative of teachers who respect every student's viewpoint and contribution and do not immediately judge a student's ideas even if the student has learning difficulties. Students with SEN may view things differently, and providing a conducive environment in which they can freely participate and focus on learning instead of worrying about their differences is important to them. Another student shared that her English teacher is aware that she needs more time to read relative to her peers due to dyslexia, and always gives her additional time to do so. By allowing the student to read at her own pace, she was able to comprehend the passage better. All the students see a direct link of this teacher attribute to better student outcomes.

Caring

Having a caring teacher is also highly appreciated by students as it is ranked second by the focus group. Caring teachers make students feel included in class activities instead of feeling left out or ostracised. One student mentioned that at an age where students are undergoing several major transitions in life (primary to secondary school, puberty etc.), having a caring teacher gives them the assurance that 'someone is there when I needed help or support'. Secondary students do spend a major part of their socialising time in the Singapore school system. Thus, having an adult in school who takes the time to listen to their problems, be it academic or social, makes them feel that they are not alone.

Another student mentioned that he is more willing to ask questions in class when a teacher is caring or approachable as he is relatively shy and awkward. Students added that caring teachers are also better able to manage students with anger management and coach them on how to handle their anger and frustrations better. They will help these students to be a better person and behave in a more responsible and mature way over time and change their attitudes towards learning in school.

Clarity

This attribute was ranked in the top three as students feel that with so many subjects and topics to learn in school, teachers who are able to explain new concepts clearly are really important for them to understand and do well in school. Providing clear examples to illustrate concepts is an important trait as understanding the concept fully is better than just memorising them. As students with SEN may take a longer time to understand a new concept or are confused by the many subjects in school, having a teacher who can explain clearly is very important to them for their learning in school.

Patience, Humour and Individual

These attributes are still relatively high on the ranking as students feel that they are also important attributes that help them achieve better outcomes in class. For patience, a student associated it with tolerance where the teacher is able to better tolerate diverse learning behaviours in the classroom due to different learning abilities. Interestingly, humour was ranked first by one of the students in his own individual ranking. He felt that humour can break the ice in the class and help him to remember some concepts better. He shared how during exams he burst out laughing during one of the questions as he remembered the joke that the teacher shared in class and that helped him to recollect that lesson and apply it to the question. The other attribute that was ranked in the middle was Individual – which means treating the students as individuals by understanding their respective strengths and weaknesses. This understanding helps the teacher to be able to know when the student needed more help and which area that the student needs to focus on in overcoming his or her weakness. Teachers with this attribute will also notice when a student is behaving differently and frequently check on him or her. This was the case in the student who mentioned earlier that he was bullied in school. One of his teachers will constantly monitor how he is doing and if he needed help to sort things out with the other students.

Interactive

This aspect was ranked in the bottom three as many students felt it is subject-based, for example Science where experiments are performed during class. Students felt that interactive lessons are relatively important particularly if the learning style of the student is kinaesthetic or has a short attention span. However, he forewarned that class may get disrupted if students start to 'play' instead of focusing on the learning as had happened in his class before with interactive devices.

Praise

An unanticipated response was the relatively low ranking that 'praise' got from the focus group - it received the second last rank. Although many students felt that 'praise' is a

form of encouragement and motivation to do better, they also view it as a subtle way in which 'tokenism' could also manifest. One student mentioned that in a class competition, everyone got rewarded, not just the winners. This is because the teacher wanted everyone to feel included but she thought it was 'simple-minded' as some of the students got rewarded for 'doing rubbish work'. Another student also felt that much of the praise were not sincere as she generally gets it for her weakest subject. She will still get praised even though she flunked her subject as her teacher wanted to 'encourage' her.

Goals

Coming in as the last ranking attribute is 'goals' or goal setting. It was a unanimous decision for the focus group. The students shared that goals and target setting are generally adult-driven, either by their parents or teachers. They also commented that the goals are basically the same year-in-year-out and one of the students likened it to 'New Year's resolution' where 'it is basically the same every year and nobody achieves them or forgets about them once it is done'. Reviews of goals are also not frequently conducted and normally only at the end of the year when it is too late to do anything. A student mentioned that in her school, the review was done with her parents so she does not know if she achieved her goals or not!

Results from focus group discussion on student outcomes

For the second focus group discussion, students deliberated on how the actions of the teacher have helped them feel more included in the classroom despite their learning difficulty, which leads to positive outcomes. These results can be in terms of either positive academic outcomes or positive social outcomes or both.

As part of the process the students were introduced to the nine student outcomes and was told that they could change or include any other student outcomes they deemed as important that were not in the original nine.

Improve in self-confidence

This aspect was included into the Diamond 9 ranking, replacing 'being competitive and doing better than peers'. The new outcome of 'improve in self-confidence' was not only deemed as important but ended up being ranked as the most important. The critical reason for being ranked first is because the students felt that being self-confident means that at any time, even without help or support from others (especially during the exams or in stressful situations), you have the ability to handle and manage it by yourself. Once you have that confidence in yourself, anything else in life that throws at you, you will be able to manage them yourself. This is an extremely powerful outcome that the students desired most, as irrespective of their learning abilities, they can become independent and self-motivated learners.

Reports showing improvement in grades

Students ranked this second as this is concrete evidence that all the hard work has paid off when reports showed that their grades are consistently improving over time. Students felt that no matter how small the improvement is, it will still provide motivation and encouragement to work harder as it showed they are progressing in the right direction. Another student mentioned that it is a direct confirmation to also show his mum that he is coping well in school as his mum only looks at his academic results to gauge if he is working hard or slacking off.

Feeling good to be at the same level as my peers

The students in the focus group ranked this aspect third. The key reason cited is that 'you do not feel that you are behind or being left out if you are at least at the same level as your classmates'. One student mentioned that as he has a known diagnosed learning difficulty, he is generally perceived to be slower in class and constantly has to catch up with his classmates academically. He will feel demoralised if he is always at the bottom of his class even though he has worked as hard as everyone.

'Being told by the teacher that I am doing well or has improved', 'having lots of friends' and 'meeting all the set targets and goals' were ranked in the middle of the diamond. One of the student did rank 'being told by the teacher that I have improved' higher as she generally does not know if she is indeed improving. Therefore, being told this by the teacher helps her self-confidence on that subject and motivates her to work harder. On the contrary, another student felt that he should know if he is doing well or not and does not need the teacher to tell him or motivate him.

The most controversial flash card that was hotly contested was 'having lots of friends'. Firstly, it was agreed by all the students to remove the second part of the flash card on 'and likes in social media' as almost all of them do not subscribe to 'likes' in social media as a meaningful measure. However, a gender difference was observed as both the boys put this outcome as their lowest ranked whereas the girls had this outcome ranked as their first. Lively debate ensued and the eventual compromise was to put this card in the middle. The boys argued that friends in school can sometimes be discouraging and look down on you once they know you have a certain learning difficulty. One of the boys, who was bullied in school since he was young, has adapted to being alone in school and does not really socialise with friends. The other boy felt that he is being ostracised in school for being different as the things he like are very dissimilar from his classmates. Both the girls have opposite opinions as they find that sharing and caring with friends in school are what helped them through their difficult times. They found 'true' friendships that have supported and motivated them despite their learning difficulties.

The last ranked outcome was 'classmates able to see me do well'. Students felt that at their level, most students are more worried about their own 'survival' than being worried if others are doing well or not. They felt that just getting through the academic curriculum is sufficient reward, given their learning difficulty, so they do not see themselves 'doing well' anyway.

DISCUSSION

Socio-emotional well-being ranked highly

Teacher attributes that took care of the socio-emotional well-being of the students were generally ranked higher. Attributes like 'respect', 'caring' and 'patient' are ranked first, second and fourth respectively. This is consistent with other studies, such as Syrnk (2012), where students with SEN emphasised that a key distinguishing feature of a nurturing teacher is one who is a trusted mentor and is able to establish dependable relationships with students. Similarly, in a study by Shogren et al. (2015), students with disabilities singled out 'patience' as a key teacher attribute that was critical in helping them overcome problems in the classroom. They cited that teachers who are able to recognise and respect that students with SEN learn in a different way, have helped these students to feel more connected to their class and their learning, leading to better student outcomes.

Sensitivity to learning differences

Teacher attributes that distinguish the learning differences of students are also ranked positively higher. Again 'caring' and 'patience', together with 'individual' (i.e. understanding individual strengths and weaknesses), are teacher attributes that students felt allowed them to learn at their own pace with support provided should the need arise. Shogren et al. (2015) reported that students with SEN preferred to be in the same classroom and be included in the same curriculum as they wanted to learn the same things as other students, even if they may need more help or to work harder to achieve the same results as their peers. They repeatedly mentioned that they appreciate teachers who set challenges for them, yet recognise their respective strengths and weaknesses, and encouraged them to be self-driven and resilient.

Gender difference on friendship

There is a major difference in opinion between the boys and girls of the focus group when it comes to friendship. Schwab (2015) found that students with SEN had significantly fewer friendships than their peers. This seems to be true for the boys in the focus group as both of them reported being bullied or ostracised in class, and therefore ranked having lots of friends relatively low. Conversely, the girls in the focus group have ranked

this outcome highly, as this outcome is greatly desirable to them. Vignes et al. (2009) confirmed in their studies that girls generally show more positive attitudes to their peers with special needs. This attitude is further enhanced the longer they have been exposed to students with SEN (Goncalves and Lemos, 2013).

Ensuring positive environment for social integration

One of the students mentioned that since he was young, he has been a target of bullying in school. Even though students may tell their teachers about this Shogren et al. (2015) pointed out that victims tend to feel conflicted about reporting the issue as they felt that the bullies may take revenge and make the situation worse. Victimization by bullying is a serious social issue and affects the social assimilation of students with SEN (Hartley et al., 2014). Therefore, inclusive practices by teachers need to address both the academic and social aspects in an inclusive setting.

Need for a more effective praise and reward system

Both the 'praise' and 'goal setting' attributes were ranked relatively low. This is surprising as studies have shown that both praise and rewards are motivating factors that lead to improvement in student outcomes, and that it is easily accessible to all teachers (Fefer, DeMagistris and Shuttleton, 2016). However, Ferguson (2013) argued that for praise to be effective, teachers need to understand how different students will react to praise and to always bear in mind the intended outcome of that praise. Weber-Stratton et al. (2012) noted that children with special needs often need higher doses of praise and attention but in order for them to be effective, they need to focus on the effort and reward actions and behaviours instead.

CONCLUSIONS

Although there are many studies conducted to demonstrate the importance of teachers to the learning outcomes in an inclusive school environment, very few are from the perspective of students. There appears to be no local research conducted in Singapore whereas studies in other countries are increasingly including students to bridge this gap (Niemi et al., 2015; Clark, 2012). However, such studies need to include students with SEN, since inclusive education and therefore the learning capabilities in the classroom are becoming more diverse.

Results from this study have confirmed that students with learning difficulties could communicate with clarity their thoughts and opinions of their learning journey in school, relating to teacher attributes and student outcomes. The data collected revealed that in terms of teacher attributes, 'respect', 'patience' and 'caring' were ranked highly by the students. With different learning styles in the classrooms, teachers with such attributes are clearly appreciated and students feel more comfortable in such a learning environment.

These attributes were found to be particularly important when the students have low self-esteem. A conducive learning environment is also important for the development of the students as they learn to socialise and integrate with their peers. Unfortunately, students with SEN not only have difficulty generating reciprocal friendships, they may be subjected to bullying in school due to their learning differences (Shogren et al., 2015). Male students in particular cited that strong support by their peers is essential to promote positive attitudes and this is important considering that more boys are being bullied or ostracised in school (Hartley et al., 2014). It is important to overcome this in school before they face more social and relationship issues as they mature into adults.

LIMITATIONS

One of the limitations of the focus group discussion was the possible use of leading questions by the facilitator due to familiarity with his students, especially at the beginning of the process. However, this was needed to start active discussion as many of the students were new to the process and required prompting and help with the way they expressed themselves. This is particularly so for students with SEN who take time to learn and become accustomed to a procedure that they have not encountered before.

It is noted that data analysis for this study is done solely by the researcher. This approach creates a potential for subjectivity and is acknowledged as a limitation of the research. Future studies with a bigger sample size may consider the use of two or more researchers for better inter-rater reliability to overcome this limitation.

Another limitation of this study is the limited sample size which makes generalisation to a broader population difficult. Furthermore, this study was specific to dyslexic learners only. Although dyslexia is the dominant learning difficulty in mainstream schools in Singapore, it is recommended that future research consider including students with other specific learning differences. The situation for students who have not been formally identified and who do not receive targeted support is likely to be even more stressful. It is also interesting to note the divergence between the girls and boys in their response to the importance of social aspects of relationships with their peers. This might suggest that further research should be based on single sex groups, so that no student needs to accommodate their results to fit in with those of a different gender.

Focus group facilitators need to be aware of potential situations where participants are persuaded to be led into a certain direction by a dominant participant (Halkier, 2010). In this focus group discussion, the students were all given equal opportunity to voice their opinions and during the ranking exercise, they were all equally engaged to ensure that the outcome took into account all their viewpoints. It may be for example, that a different set of headings would have generated a different pattern of results.

Directions for further research

In future research, attempts would be made to address the limitations of the current research. Nevertheless, some important implications can be derived from these results, and recommendations made to improve outcomes for students with SEN within the school system. These are outlined below.

The first recommendation is regarding the effective use of praise and feedback in the classroom by teachers. An effective praise and reward system that is specific and focuses on effort and actions can motivate students towards achieving positive academic and social behaviour outcomes (Fefer et al., 2016). Therefore, before teachers shower their students with praise, they need to ensure that the praise is tied to the students meeting progressively demanding standards of performance that enhances their intrinsic motivation in order for it to be effective.

One wide-ranging recommendation from this study is the need to raise awareness and improve interactions between students with SEN and their peers. Students who have regular contact with fellow students with SEN have more positive behavioural attitudes towards their fellow students with disabilities (Goncalves and Lemos, 2013). This highlights the benefits of inclusive settings in school in terms of promoting tolerance to diversity, social acceptance and positive social interactions. Given the nascent development of inclusive education in Singapore, it is even more crucial for teachers not only to be aware of the various learning difficulties of their students but to also provide information so as to improve the attitudes towards students with SEN and assisting in the development of meaningful relationships with their peers.

A related recommendation is training for teachers in mainstream schools regarding specific knowledge and skills to teach an inclusive classroom of diverse learners. Although all government-funded primary schools in Singapore currently have Allied Educators who are trained to support students with SEN, most teachers are not trained to do so. Many teachers in an inclusive setting are not confident of their ability to effectively manage a classroom of diverse learners and therefore felt that they are letting their students down (Robinson, 2017). As such, training has been an area of focus for many educators, especially so that they can build their capacity to engage and support the learning and development of students with SEN. There is an urgent need to better equip teachers in the mainstream classrooms with this knowledge and skills as their attitudes and behaviour do impact directly on the outcomes of their students, as this study has shown.

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