

## Managing ASD Pupils' Challenging Behaviour: A Case Study

Samsilah Roslan<sup>1\*</sup>, Che Rozaniza Azizan<sup>2</sup>, Azraai Othman<sup>3</sup>, Nadia Abdul Rahim<sup>4</sup>, Wan Faridah Fairus Wan Ramli<sup>5</sup>, Noor Aslina Sulaiman<sup>6</sup> & Hasny@Yanti Zainal<sup>7</sup>

<sup>1,2</sup> Department of Foundations of Education, Faculty of Educational Studies, Universiti Putra Malaysia, 43400, UPM, Serdang, Selangor

<sup>3</sup> Department of Science and Technology, Faculty of Educational Studies, Universiti Putra Malaysia, 43400, UPM, Serdang, Selangor

<sup>4</sup> Special Education Integrated Program, SK Sungai Anib III, Batu 5, Jalan Sibuga, 90500 Sandakan, Sabah

<sup>5</sup> SMK Putrajaya Precint 11(1), Jalan P11 J1, 62300 Putrajaya

<sup>6</sup> Special Education Integrated Program, SMK Kompleks KLIA, 71800 Nilai, Negeri Sembilan

<sup>7</sup> SK Puchong, Jalan Masjid, 47100 Puchong, Selangor

---

### ABSTRACT

Autistic Spectrum Disorder (ASD) pupils are given equal access to primary and secondary education, but coping with their challenging behaviour may require teachers' involvement. Studies documented that ASD pupils struggle to meet the demands of their school environment due to several challenges in physical, intellectual, social and emotional (PISE) aspects. Hence, recognizing and managing their challenging behaviours crucial for enhancing their participation in the classroom. This case study aimed to explore ASD pupils' challenging behaviour, teachers' approaches in managing these behaviour and effective strategies to maximize pupils' classroom participation. Samples of 6 ASD pupils undergoing Special Education Integrated Program and 3 special education teacher from 3 selected schools in Malaysia were purposely selected. Observation protocol, field notes and documents analyses were used to gain the research data. Thirty minutes of daily observations in four consecutive weeks were conducted during the classroom teaching and learning. Emerging themes and researcher's impressions were documented. Findings indicated that in terms of PISE, ASD pupils engaged in various types of challenging behaviours. The implementation of reward system, antecedent-behaviour-consequences (ABC), and teacher-parent partnership were able to promote positive behaviour in the classroom. ASD pupils' classroom participation were also maximized through simplified instruction, interest-based learning activities, task analysis, multisensory approach and engaging classroom activities. To conclude, this case study contributes into the understanding of how teachers' common practices may help to overcome ASD pupils' challenging behaviour; thus leading to active classroom participation.

**Keywords:** ASD, challenging behaviour, emotional, intellectual, physical, social

---

### INTRODUCTION

Autistic Spectrum Disorder (ASD) which describes the variable presentation of Autism (Faras, Al Ateeqi & Tidmarsh, 2010) is a complex developmental disability that essentially affects the way a person communicates and relates to people (Millar et al., 2002). Diagnostic criteria for ASD focus on impairments affecting socialization, verbal and nonverbal communication, and restricted and repetitive patterns of behaviour (Filipek et al., 2000).

Studies indicated that ASD pupils may face difficulties in adapting to school environment which is challenging for them. According to Irish National Teachers' Organisation (n.d), challenging behaviour may also be associated with certain disabilities such as ASD. Though there are many reasons for pupils' engagement in challenging behaviour, teachers must be fully aware that they used the behaviour to communicate messages (Lentini, Vaughn & Fox, 2005). In the classroom context, challenging behaviour comprises of behaviour which may interfere pupil's own or their classmates' learning process.

\* Corresponding author: [samsilah@upm.edu.my](mailto:samsilah@upm.edu.my)

Challenging behaviours also comprises of disruptive behaviours such as throwing tantrums, making excessive noises, pushing, kicking, biting as well as showing social withdrawn behaviours (Ontario Ministry of Education, 2007). Though there are overlapping between the categories, literature review suggested that ASD pupils' challenging behaviour could be categorized into physical, intellectual, social and emotional abilities (PISE) (Horner, Carr, Strain, Todd, & Reed, 2002; J.Weis, 2013; Jordan, 2005; Millar et al., 2002). Without proper interventions and instructional supports, these difficulties may limit pupils' commitment and participation in school activities (Ontario Ministry of Education, 2007).

As discussed in the literature, it can be concluded that recognizing ASD pupils' challenging behaviour is crucial in managing their behaviour. It can be expected through this current research on exploring and managing ASD pupils' challenging behaviour, teachers can benefit to maximize their ASD pupils' classroom participation to the greatest extent appropriate as suggested by the Least Restrictive Environment (LRE)'s mandate. The LRE's mandate ensures that schools educate pupils with special educational needs (SEN) in integrated settings, alongside pupils with and without disabilities to the maximum extent appropriate (Ministry of Education, 2012; Yell, 2010).

Thus, a collective case study is conducted to (1) explore the ASD pupils' challenging behaviour; (2) discuss approaches to overcome ASD pupils' challenging behaviour; and (3) describe strategies to maximize ASD pupils' classroom participation. Due to the lack of ASD pupils in the mainstream inclusive program, the present study is only focusing on the ASD pupils in Special Education Integrated Program in three selected schools in Malaysia. Throughout this article, the term ASD is used to describe participants who were variably diagnosed along the spectrum by the medical practitioners. These include general Autism and Asperger syndrome.

## METHODOLOGY

### *Research Design*

A collective case study method was applied for this study. Case study design is an integrated system which refers to study of specific and complex functioning concepts (Stake, 1995). In order to understand the ASD population, three different schools across Malaysia were selected as collective cases.

The research questions are as follows:

- (1) What are the ASD pupils' challenging behaviours?
- (2) How to overcome ASD pupils' challenging behaviours?
- (3) How to maximize ASD pupils' classroom participation?

### *Participant*

Table 1 provides demographic information of 3 special education teachers who were teaching various subjects in the Special Education classes. Female teachers aged between 32 and 37 years old with more than five years of teaching experience in Special Education were purposely selected for the study.

TABLE 1  
Demographic Information of Teachers

Participant	Age	Gender	Race	Teaching Experience (Years)	Teaching Subjects
Teacher 1	37	Female	Malay	12	BM, Math, PE, LS
Teacher 2	33	Female	Malay	9	BM, Math, IE, MS
Teacher 3	32	Female	Malay	7	Eng, Math, PE, SS

*Note.* BM=*Bahasa Melayu*, Math=Mathematics, Eng=English, SS= Social Science & Environment, IE=Islamic Education, LS=Living Skills, MS=Manipulative Skills, PE=Physical Education & Health.

The participants of the study also included 6 ASD pupils with diverse intellectual abilities who were variably diagnosed along the spectrum by the medical practitioners. Table 2 shows that there are four male participants and two female participants aged between seven and seventeen years old. Four of them are Malays, the rest, a Chinese and a Kadazan Dusun.

TABLE 2  
Pupil Demographic Information

Participant	Age	Gender	Race	Types of Disability
Pupil 1	17	Male	Malay	Severe Autism
Pupil 2	15	Male	Malay	Mild Autism
Pupil 3	15	Female	Malay	Mild Autism
Pupil 4	16	Male	Malay	Moderate Autism
Pupil 5	7	Male	Kadazan	Autism
Pupil 6	8	Female	Chinese	Autism

### *Procedure*

Informed consent from all the teacher participants were obtained prior to data collection. Besides ASD pupil's informed assent, parental/ guardian consents was also obtained from their respective parents. For ASD pupil with limited reading literacy, a verbal assent script was used instead of a written one. All participants were assured that their identities were protected and they could withdraw at any point of the study. Observation protocol, field notes and document analysis were used as data gathering method. Observation is an effective tool for gathering information about ASD pupils' behaviours (Ontario Ministry of Education, 2007) which allows for detailed descriptions of the participants behaviour, intentions, situation, and events (deMunck & Sobo, 1998). Observations were conducted for 30 minutes a day in four consecutive weeks during a regular classroom teaching and learning process. During each observation, field notes were made based on the observation process and teacher's reflection. Emerging themes and researcher's impression were documented. The characteristics and relationship between each theme were noted. Each participant was assigned with a code symbol to protect their identities.

### *Data Analysis*

Manual observational coding was used to analyse the observation protocol and field notes. Coding allows researchers to weed out extraneous information and focus on the type of information needed for the study (deMunck & Sobo, 1998). In order to ensure dependability (or reliability as in quantitative paradigm), researcher maintained an audit trail through comprehensive notes concerning all methodological decisions starting from the beginning to the end of the study. Thick and descriptive processes within the study were reported in detail which enables future replications of the study. Apart from that, reflective notes concerning researcher's thoughts and ideas were documented throughout the data collection process. The development of the final themes and subthemes were aided by these reflective notes. On the other hand, validity or credibility was ensured by method triangulation and investigator triangulation (Patton, 1999). According to Carter et al., (2014), validity is tested in a qualitative research through the convergence of information obtained from various sources. In terms of method triangulation, this study involved the use of observation, field notes and document analysis to explain the phenomenon. In addition, investigator triangulation in this study refers to the participation of three different researchers at three different locations to provide multiple observations and conclusions. Descriptive, comprehensive and holistic non-generalized findings were produced in order to answer the research questions.

## **RESULTS**

### *ASD Pupils Challenging Behaviours*

All of the pupil participants were observed during regular teaching and learning process. Based on the observation checklists, ASD pupils' challenging behaviours were categorized into groups of the same characteristics. Four themes emerged in relation to ASD pupils' challenging behaviours:

- physical (echolalia, repetitive behaviours, commit self-injury and disruptive behaviours)
- intellectual (low reading literacy, delayed in linguistic ability, passive learner)
- social (self-alienation, poor social skills, refused to give co-operation and low verbal or non-verbal communication)
- emotional (mood-swing, short-tempered, depressed, unusual fear, tantrums and cry or laugh spontaneously without any concrete reason)

**Physical.** Though echolalia is common among the ASD population, findings revealed that all except one of the participants were unecholalic. They were obsessed with their favourite activities (e.g solving jigsaw puzzles, drawing etc.) and easily attracted to stimuli (e.g, noise from outside the classroom) which will then distract their focus from teaching and learning process. Three of the six participants showed repetitive behaviours (e.g, banging the desk or wall, spinning the coins etc) and would sometimes commit self-injuries and tantrums due to unknown reasons or unprecedented events (change in routines). Disruptive behaviours such as interrupting others, defiance and making noise during classroom teaching and learning process were also observed among two of the six participants.

**Intellectual.** Despite the varying degrees of cognitive and intellectual functioning of ASD, findings revealed that four of the participants have good reading literacy and were able to complete classroom activities with minimum facilitation. Classroom participation varies from passive to moderately active learners. Surprisingly, one of the participants showed no obvious intellectual deficits as opposed to the other counterparts, able to recite and memorize a few simple *surah* of the *Al-Quran* and he was a bilingual speaker (*Bahasa Melayu* and English) with good memorization skills and active learner.

**Social.** Findings indicated that 50% of the participants were unable to initiate their own communication (e.g, greeting teachers or peers) alongside with the occurrences of low verbal and non-verbal communications (e.g, eye-contact, facial expressions, and body language). There were also participants who prefer to use non-verbal mode of communication in addressing their needs. Self-alienation was also common among most of the participants. For the non-Malay native speakers, they would prefer to communicate in bilingual mode of communication (i.e, English & *Bahasa Melayu*). Though some of them managed to involve in the group activities, but maintaining the whole discussion was hardly possible.

**Emotional.** Occasionally, majority of the participants has an unbalanced emotional problems. Mood-swing, short-temperedness, tantrums and depressions were commonly seen due to change of routines. However, there were also participants with easily managed emotions with absence of disruptive behaviours. Two of the participants cried or laughed spontaneously without any concrete reasons during teaching and learning. Unusual *fears* or phobias and unusual responses to *fear* would also be seen in three of the participants.

#### *Overcoming the ASD Pupils' Challenging Behaviour*

Three significant themes, namely reward system, antecedent-behaviour-consequences (ABC), and teacher-parent partnership emerged from the data in relation to teachers' common practise in managing ASD pupils' challenging behaviours.

**Reward System.** The use of classroom reward system were practised by all the participants in rewarding ASD pupils intended behaviours. Physical rewards (e.g, exchangeable token, stars, etc) or non-physical rewards (e.g: smile, praise, shoulder pat etc.) serves as reinforcers to increase desired behaviours; which in turn overcome ASD pupils challenging behaviour.

**Antecedent-Behaviour-Consequences (ABC).** In general, all the three participants reflected the ideas of ABC in managing ASD pupils challenging behaviours. Teacher 1 identified antecedent or event that immediately triggered her ASD pupils challenging behaviours: "I would also recognize changes in manner or behaviours which may trigger my ASD pupils anxiety." On the other hand, total isolation (consequences) would be practised by Teacher 2 in managing her ASD pupils challenging behaviours: "If my ASD pupils show any disruptive behaviours, such as throwing tantrums, defiance, self-injury and etc., I would firstly isolate them from the rest of the classmates."

On top of that, Teacher 3 reflected the ideas of observing and recording ABC data for behaviour modification purposes: "I would also like to record my pupils unusual or challenging behaviours on a checklist, so that behaviour modification could be undertaken." In addition, Teacher 2 reflected the ideas of behaviour modification under the close-monitoring of the special education teacher: "In managing tantrums and other emotionally-driven behaviours, pupils will be put under close-monitoring by the respected special education teacher until the intended behaviour is achieved." In terms of shaping the intended behaviour, Teacher 1 stated that teaching specific social rules or skills, such as turn-taking and social distance may also help to encounter her ASD pupils challenging behaviour.

**Teacher-Parent Partnership.** Only two participants reflected the importance of teacher-parent partnership in overcoming ASD pupils challenging behaviour. Teacher 2 stated that parent-teacher meeting would be conducted to discuss ASD pupils challenging behaviour and alternative ways to control the unintended behaviour: "If my ASD pupils show any disruptive behaviours such as throwing tantrums, defiance, self-injury and etc., parents will be informed and called for a special meeting... parents will be advised to consider

alternative methods, such as spiritual therapy.” Alternatively, Teacher 3 would prefer a home visit in relation to parent-teacher partnership: “I would do home visit to discuss about teacher-parents partnership in managing the ASD pupils’challenging behaviours.” Prior to the meeting, Teacher 2 also expressed the importance of keeping a written record of any unwanted incidents in relation to ASD pupils challenging behaviour: “I would jot down the incidence (e.g, tantrums, self-injury etc.) in our classroom behaviour’s record book.”

#### *Maximizing ASD Pupils’ Classroom Participation*

Simplified instruction, interest-based learning activities, task analysis, multisensory approach and engaging classroom activities were clearly evident in relation to maximizing ASD pupils’ classroom participation. The emergent theme of ASD pupils’ classroom participation is developed with an emphasis on the meaning via special education teachers’ common practises.

**Simplified Instruction.** ASD pupils particularly those at the lower end of the spectrum required simplified instruction for maximum classroom engagement. This statement is further supported by Teacher 1 who preferred to give simple instruction during her teaching and learning process: “I would prefer to give them fewer choices and simple instruction.” Teacher 2 preferred to communicate in short and simple words: “If necessary, I would reword my sentence if I saw a blank stare after instructions/questions were given.”

**Interest-Based Learning Activities.** Participants reflected that identifying ASD pupils preferences and interests are crucial in maximizing ASD pupils hidden potential; thus leading to active classroom participation. For Teacher 1, identifying pupils favourite activities made her “aware of what to do and what (she is) not supposed to do.” Teacher 2 noted that “identifying pupils interests and preferences may also be helpful in maximizing their (pupils) hidden potential.” Teacher 2 and Teacher 3 stated that they were able to stimulate ASD pupils active participation by implementing interests-based learning activities in the classroom. Teacher 3 added that she would incorporate pupils’ interest in her teaching and learning process “with the help of pupil management assistant.”

**Task Analysis.** The implementation of task analysis in educating pupils with ASD was highly recommended by two of the participants. Instead of trying to master the whole task at once, the implementation of task analysis allows ASD pupils to work on the task one part at a time. Teacher 1 defined task analysis as “separating a very specific task in sequential order.” Teacher 1 stated that “I would always use task analysis” while Teacher 3 claimed that “Task analysis is also a common practise in enhancing certain skills of the sub-topics.” By implementing task analysis, Teacher 1 noted that “pupils would be happy because task analysis allow them to reach the teaching and learning objectives easily.”

**Multisensory Approach.** Multisensory approach of teaching and learning consisted of four different modalities namely visual, auditory, kinesthetic and tactile (Oakley, Howitt, Garwood & Durack, 2013). The integration of different modalities has been found to be effective in teaching ASD learners as readily implemented by two of the participants. In order to cater ASD pupils’ educational needs, Teacher 2 “prefers to use various mode of presentations.” Visual, auditory, tactiles and kinesthetic teaching aids were commonly used by Teacher 2 “to enhance pupils participation.” According to Teacher 3, ASD pupils hand-eye coordination (which comprises of visual-kinesthetic elements) could be stimulated by “introducing simple motor activities (e.g: thread a needle, throwing and catching a ball, joining the dots and reading).”

**Fun and Meaningful Learning.** Active classroom participation would be facilitated via fun and meaningful learning. According to Teacher 2, fun learning activities, such as role play, simulation, games and outdoor activities “may help to enhance her ASD pupils’ classroom participation.” The statement is in line to Teacher 3 who introduced various simulation activities, role play, experiment and outdoor games “as supplementary to my (her) conventional teaching and learning method.”

## **DISCUSSION**

In accordance with the research questions, findings indicated that ASD pupils with diverse intellectual abilities engaged in challenging behaviours. These challenging behaviours consist of physical (echolalia, repetitive behaviours, disruptive behaviours and committing self-injury); intellectual abilities (low reading literacy, delayed in linguistic ability and passive learner); social (self-alienation, poor social skills, refused to give co-operation and low verbal or non-verbal communication); and emotional (mood-swing, short-tempered, depressed and cry or laugh spontaneously without any concrete reason). Challenging behaviours, such as aggression, noncompliance, self-injury, and stereotypy are common in ASD school age pupils (Baghdadli, Pascal, Grisi, & Aussilloux, 2003; McClintock, Hall, & Oliver, 2003; Murphy, Healy, & Leader, 2009).

Without proper intervention, ASD pupils' challenging behaviours may further proceed into developmental related disabilities (Koegel, Koegel, Ashbaugh, & Bradshaw, 2014; Murphy et al., 2009). This may also limit the pupils' access towards better educational and social opportunities (Machalicek, O'Reilly, Beretvas, Sigafoos, & Lancioni, 2007). This statement is in line to O'Brien & Pearson (2004) who stated that ASD pupils' IQ (particularly those at the higher end of the spectrum) greatly reduce with increasing challenging behaviours. Besides, Murphy et al. (2009) have found that severe IQ and ASD were related to higher rates of challenging behaviours, but not across the board. Self-injury in particular was higher but aggression and stereotypes were not related to level of IQ in ASD.

ASD pupils' challenging behaviour could be overcome by allowing them to engage in their favourite activities. The use of pupil's strengths and interests are beneficial in motivating the pupil (Ontario Ministry of Education, 2007). For instance, activities such as counting blocks and mini tiles encouraged ASD pupils to solve abstract and simple mathematical calculations (Betts, Betts & Gerber-Eckard, 2007). These activities are uniquely suited the learning style of ASD pupils by applying multisensory approach for teaching a wide range of skills. By implementing elements of creative thinking, hands on activities can be used as learning reinforce tools, ranging from basic self-help, communication, and social skills to academics (Lindsay, Proulx, Scott, & Thomson, 2014). Moreover, hands on activities have been found to increase the ASD pupils' motivation towards classroom participation (Ontario Ministry of Education, 2007).

On top of that, task analysis which refers to separating a very specific task in sequential order allows the ASD pupils' to reach teaching and learning objectives easily (Parker & Kamps, 2011). Szidon & Franzone (2009) define task analysis as the delineation of a complex task into smaller, more manageable steps. ASD pupils are taught to chain the steps together from beginning to end, backward, or in small clusters, through the use of modelling, graduated guidance, and varying degrees of prompting procedures to teach individual steps. Thus, inline to Parker and Kamps (2011), task analysis could also be regarded as potential classroom intervention strategies for ASD pupils in improving their classroom participation.

In addition to understanding abstract concepts, ASD pupils often have difficulty in understanding complex language and may misinterpret metaphors, slang terms, and colloquialisms (Ontario Ministry of Education, 2007). In order to avoid confusion, teachers are encouraged to simplify information by using clear and concise language, breaking instructions into simpler words as well as implementing visual and concrete teaching materials. On top of that, teachers should also consider the pragmatic aspects of language (e.g pitch and tone of their voice) which may sometimes modify their intended meaning (Cummings, 2014; Tager-Flusberg & Caronna, 2007).

Apart from that, findings also indicated that classroom reward system is beneficial in stimulating ASD pupils' interests as well as maximizing the ASD pupils' classroom participation. Rewards and motivators involve positive reinforcement approaches that encourage any particular on-task behaviour (e.g writing pupil's own name correctly) (Pauline, Davis, Florian & Ainscow, 2004). However, in order to avoid unnecessary distractions, teachers are encouraged to ensure that the reward items are easily and immediately accessible (Ontario Ministry of Education, 2007).

On the other hand, teachers must be able to identify actions or behaviour (antecedents) that may trigger ASD pupils' anxiety (consequences) so that precautions could be taken to minimize these challenging behaviours. For instance, teachers could provide possible options rather than forcing all pupils to engage in certain behaviour (such as cleaning up work station) which may trigger anxiety to some ASD pupils (Jordan, 2005). Teachers are advised to implement the ABC (antecedents-behaviour-consequences) method to determine ASD pupils' patterns of behaviour as well as identifying factors to predict behaviours of concern (Ontario Ministry of Education, 2007). Hence, daily routine could be used as a 'vehicle' for helping ASD pupils to manage and control their challenging behaviours (Machalicek et al., 2007).

Findings also indicated that incorporating social skills in classroom teaching and learning may also help to overcome ASD pupils' challenging behaviour. Teaching specific social rules or skills, such as turn-taking and social distance with elements of self-discipline may help to manage their challenging behaviour. Full-monitoring isolation and close-monitoring with the help of pupil management assistant could also be practised.

Apart from that, home visit with elements of teacher-parents partnership may also be implemented. Teachers are advised to keep any written record on ASD pupils' challenging behaviour so that proper behaviour modification and individualized education plan could be proposed with the involvement of both parties; i.e., teachers and parents. Behaviour modification is considered as comprehensive and specific teaching approaches used for teaching and managing ASD pupils' challenging behaviour (Harrower & Dunlap, 2001). Thus, managing ASD

pupils' challenging behaviours require a collaborative problem-solving team that includes parents and those who interact with the pupils (Ontario Ministry of Education, 2007).

These recommendations are part of interventional approach in ASD pupils' context. Studies reported that successful classroom intervention may reduce pupils' challenging behaviour. For example, changes in instructional context, differential reinforcement and self-management strategies each appear to be effective in reducing diverse topographies of challenging behaviour (Machalicek et al., 2007). In terms of instructional context, teachers may also use teaching aids which implement the auditory, visual, kinaesthetic and tactile elements, as well as incorporating various teaching methods such as simulation activities, role play, experiment and outdoor games, rewording and bilingual instruction whenever appropriate. These would in turn enhance ASD pupils' interests, preferences or strength throughout the teaching and learning process. Furthermore, focusing on the ASD pupils' strengths and abilities is essential for their future functional and should be an on-going part of instruction (Ontario Ministry of Education, 2007).

## CONCLUSION

This study explores how the special education teachers maximized their ASD pupils' classroom participation by recognizing and managing their challenging behaviours. Based on the result, it is clearly shown that by recognizing the PISE aspects of ASD pupils' challenging behaviours, teachers are fully aware of necessary actions in managing these behaviours. ASD pupils are unique in their own way, thus recognizing and managing their challenging behaviours need to be done based on their individual characteristics.

Smart partnership between teachers, parents and pupil management assistant could be regarded as good practise in addressing ASD pupils' behaviours. Parents are emotionally-attached to the children, thus their active participation in parent-school partnership is crucial. Recognizing, developing and maximizing the ASD pupils' potential requires commitment from both parties, i.e, schools and parents.

This exploratory case study is subjected to limitations. First, this study only involved three selected schools in Malaysia. Second, only six ASD pupils and three special education teachers were purposely selected. Third, this study is qualitative in nature which means that generalizability of the findings is possible only to the extent that qualitative data can be. Finally, the focus of the study did not permit any comprehensive investigation on the parents or guardian involvement in managing their children's challenging behaviour. Thus, a more extensive study using randomly selected larger samples could be considered to provide empirical information on the phenomena. Perhaps, an integration of inductive and deductive methods could be applied to increase generalizability of the findings. In terms of school-parents partnership, the integration of both teachers and parents perspectives in maximizing ASD pupils' potential warrants further extensive research.

Hence, educational authorities especially the Special Education Division should also consider the establishment of school-parents partnership in addressing ASD pupils' challenging behaviour. This allows for more scientific and systematic way of smart partnership, thus leading to improved behaviours and maximized potential. Special education teacher is also expected to consider the PISE aspects in recognizing and managing their ASD pupils' behaviours, followed by proper educational interventions to suit the needs of their ASD pupils.

## REFERENCES

- Baghdadli, A., Pascal, C., Grisi, S., & Aussilloux, C. (2003). Risk factors for self-injurious behaviours among 222 young children with autistic disorders. *Journal of Intellectual Disability Research*, 47(8), 622–627. <http://doi.org/10.1046/j.1365-2788.2003.00507.x>
- Betts, S.W., Betts, D. E. & Gerber-eckard, L. N. (2007) *Asperger syndrome in the inclusive classroom*. London: Jessica Kingsley.
- Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, 41(5).
- Cummings, L. (2014). *Pragmatic disorders*. Vol. 3. United Kingdom, UK: Springer Science & Business Media.
- deMunck, V. C. & Sobo, Elisa J. (Eds) (1998). *Using methods in the field: a practical introduction and casebook*. Walnut Creek, CA: AltaMira Press.
- Faras, H., Al Ateeqi, N., & Tidmarsh, L. (2010). Autism spectrum disorders. *Annals of Saudi Medicine*, 30(4), 295-300.
- Filipek, P. A., Accardo, P. J., Ashwal, S., Baranek, G. T., E.H. Cook, J., Dawson, F.R. Volkmar, M. (2000). Practice parameter: Screening and diagnosis of autism report of the quality standards subcommittee of the american academy of neurology and the child. *Neurology*, 55(August), 468–479.
- Harrower, J. and Dunlap, G. (2001) Including children with autism in general education classrooms: a review of effective strategies. *Behaviour Modification*, 25(5), 762- 784.

- Homer, R. H., Diemer, S. M., & Brazeau, K. C. (1992). Educational support for students with severe problem behaviours in Oregon: A descriptive analysis from the 1987-1988 school year. *Journal of the Association for Persons with Severe Handicaps*, 17(3), 154–169.
- Horner, R. H., Carr, E. G., Strain, P. S., Todd, A. W., & Reed, H. K. (2002). Problem behaviour interventions for young children with autism: A research synthesis. *Journal of Autism and Developmental Disorders*, 32(5), 423 – 446. <http://doi.org/10.1023/A>
- Irish National Teachers' Organization. (n.d). *Guidance on managing challenging behaviour in school*. Retrieved from [http://m.into.ie/ni/studentsnqts/students/studentpublications/Students\\_GuideToManagingChallengingBehaviour.pdf](http://m.into.ie/ni/studentsnqts/students/studentpublications/Students_GuideToManagingChallengingBehaviour.pdf)
- J.Weis, R. (2013). Intellectual disability and developmental disorders in children. In *Introduction to abnormal child and adolescent psychology* (2nd Ed.). London: SAGE Publications, Ltd. [http://doi.org/10.1016/0001-6918\(64\)90109-X](http://doi.org/10.1016/0001-6918(64)90109-X)
- Jordan, R. (2005). Managing autism and asperger's syndrome in current educational provision. *Pediatric Rehabilitation*, 8(2), 104–112. <http://doi.org/10.1080/13638490500054891>
- Koegel, L. K., Koegel, R. L., Ashbaugh, K., & Bradshaw, J. (2014). The importance of early identification and intervention for children with or at risk for autism spectrum disorders. *International journal of speech-language pathology*, 16(1), 50-56.
- Lentini, R., Vaughn, B.J., & Fox, L. (2005). *Teaching tools for young children with challenging behaviour*. University of South Florida. Retrieved from [http://challengingbehaviour.fmhi.usf.edu/do/resources/teaching\\_tools/toc/folder1/1e\\_routine\\_based.pdf](http://challengingbehaviour.fmhi.usf.edu/do/resources/teaching_tools/toc/folder1/1e_routine_based.pdf)
- Lindsay, S., Proulx, M., Scott, H., & Thomson, N. (2014). Exploring teachers' strategies for including children with autism spectrum disorder in mainstream classrooms. *International Journal of Inclusive Education*, 18(2), 101–122. <http://doi.org/10.1080/13603116.2012.758320>.
- Machalicek, W., O'Reilly, M. F., Beretvas, N., Sigafos, J., & Lancioni, G. E. (2007). A review of interventions to reduce challenging behaviour in school settings for students with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 1(3), 229–246. <http://doi.org/10.1016/j.rasd.2006.10.005>
- McClintock, K., Hall, S., & Oliver, C. (2003). Risk markers associated with challenging behaviours in people with intellectual disabilities: A meta-analytic study. *Journal of Intellectual Disability Research*, 47(6), 405–416. <http://doi.org/10.1046/j.1365-2788.2003.00517.x>
- Millar, R., McCann, J., Scott, L., Doherty, K., McSorley, G., O'Hara, C., & Hunter, J. (2002). *Austistic spectrum disorder: A guide to classroom practice*. (G. McGinn, Ed.). Dublin: Dept. of Education.
- Ministry of Education. (2012). *Preliminary report: Malaysia education blueprint 2013 - 2025*. Retrieved from <http://www.moe.gov.my/userfiles/file/PPP/Preliminary-Blueprint-Eng.pdf>
- Murphy, O., Healy, O., & Leader, G. (2009). Risk factors for challenging behaviours among 157 children with autism spectrum disorder in Ireland. *Research in Autism Spectrum Disorders*, 3(2), 474–482. <http://doi.org/10.1016/j.rasd.2008.09.008>
- Oakley, G., Howitt, C., Garwood, R., & Durack, A. R. (2013). Becoming multimodal authors: Pre-service teachers' interventions to support young children with autism. *Australasian Journal of Early Childhood*, 38(3), 86.
- O'Brien, G., & Pearson, J. (2004). Autism and learning disability. *Autism: The International Journal of Research and Practice*, 8(2), 125–140. <http://doi.org/10.1177/1362361304042718>
- Ontario Ministry of Education (2007). *Effective educational practices for students with autism spectrum disorders: A resource guide*. Toronto: Ontario Ministry of Education. Retrieved from <https://www.edu.gov.on.ca/eng/general/elemsec/spiced/autismSpecDis.pdf>
- Parker, D., & Kamps, D. (2011). Effects of task analysis and self-monitoring for children with autism in multiple social settings. *Focus on Autism and Other Developmental Disabilities*, 26(3), 131–142. <http://doi.org/10.1177/1088357610376945>
- Patton, M.Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Sciences Research*, 34, 1189–1208.
- Pauline Davis, Florian, L., & Ainscow, M. (2004). *Teaching strategies and approaches for pupils with special educational needs: A scoping study*. Department for Education and skill (Vol. RR516). Nottingham, UK.
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Szidon, K., & Franzone, E. (2009). Task Analysis. Madison, WI: National Professional Development Center on Autism Spectrum Disorders, Waisman Center, University of Wisconsin.
- Tager-Flusberg, H., & Caronna, E. (2007). Language disorders: autism and other pervasive developmental disorders. *Pediatric Clinics of North America*, 54(3), 469-481.
- Yell, Mitchell L. (2006). *The law and special education* (2<sup>nd</sup> ed.). U.S.A: Pearson Education Inc.