

# **Children with ASD as Part of the Learning Community in Three International Schools in Hong Kong: Practical Implications for Class Practice**

Brenda Peters<sup>a</sup> and Chris Forlin<sup>b</sup>

<sup>a</sup> *Department of Special Education and Counseling, Hong Kong Institute of Education*

<sup>b</sup> *Department of Learning Science, Hiroshima University/ Hong Kong Institute of Education*

*(Received 29 April 2013, Final revised version received 13 July 2013)*

Since the Salamanca Statement (UNESCO, 1994), there has been a global rise in the numbers of children and young people with special educational needs, including those with Autism Spectrum Disorder (ASD), attending regular schools. The inclusion of children with ASD into regular classrooms has been mooted the most challenging for teachers. A wealth of research has investigated inclusive practices in the West. Little is known, however, about inclusive practices in Hong Kong schools for learners with ASD. This article, therefore, reports the results of a mixed methods study that focuses on enhancing social communication and interaction for learners with ASD. Extant inclusive class practices and opportunities for social interaction and communication for children with ASD in regular schools in Hong Kong, are identified and practical implications for class practice are discussed.

**Key words:** Autism, regular school, inclusive practices.

## **Introduction**

There has been a global paradigm shift towards social models of inclusion for educational provision for learners with Special Educational Needs [SEN] (Forlin, 2010). School placement for learners with Autism Spectrum Disorder (ASD), however, has been immersed in a labyrinth of educational policy and caveats of access (Parsons, Guldberg, MacLeod, Jones, Prunty, & Balfe, 2009; Parsons & Lewis, 2010). Similar issues have been reported to occur in schools in Hong Kong (Peters & Forlin, 2010; Poon McBrayer, 2004).

## **Perspectives of inclusive practice**

The educational provision for children with SEN and parental satisfaction in the United Kingdom was the focus of the Lamb Inquiry (2009). Findings indicated a lack of parental confidence and dissatisfaction with the provision for these learners. In addition, Wilkinson and Twist (2010) stated that students with ASD in regular schools were 20 times more likely to be excluded. Recent research has highlighted the importance of including learners with ASD and social cognitive development (Boyd, Conroy, Asmus, McKenny & Mancil, 2008; Peters & Forlin, 2011).

---

*Corresponding author: Brenda Peters, Email: [Bren\\_peters@me.com](mailto:Bren_peters@me.com)*

Regular teachers' concerns, negative perceptions and beliefs about learners with SEN and /or ASD have also been explored in research (e.g., Daniels, 2011; Gerber & Semmel, 1985; Guldberg, Parsons, MacLeod, Jones, Prunty, & Balfe, 2011; Humphrey, 2008). Findings have indicated that teachers' foci have been on their lack of specific expertise, insufficient knowledge of effective strategies for learner heterogeneity and, more specifically, on challenges to their authority and managing atypical behaviours presented by learners with ASD (Emam & Farrell, 2009; Rose, 2008). As a response, teacher training and professional learning programmes have aimed to enhance pedagogy development and increase teacher knowledge and skills to ensure positive inclusion outcomes for all (Guldberg, 2010; Forlin, 2008a; Frederickson & Cline, 2009; Humphrey, 2008; Humphrey & Symes, 2010; Norwich & Lewis, 2007; Pearson & Ralph, 2007; Peters & Forlin, 2011).

### **Inclusive school practices**

In addition to the increased use of evidence based practices for learners with ASD (Cook, Tankersley, Cook & Landrum, 2008), an increase of Teacher Assistants (TA) employed to support learners with ASD has been found, however, research findings have indicated that teachers increasingly rely upon TA support as the medium of access to class-based learning for these learners (Daniels & Hedegaard, 2011; Frederickson, Jones & Lang, 2010; Symes & Humphrey, 2011). Furthermore, findings have indicated that TAs act unintentionally as barriers to student learning development and that this affects student independence, participation and self-esteem (e.g., Blatchford, Bassett, Brown, Martin, Russell et al., 2009; Bøttcher, 2011; Causton-Theoharis, 2009; Frederickson & Cline, 2009; Giangreco, 2010; Giangreco & Doyle, 2007).

Peer support and input has been found to be important for learners with ASD (Bøttcher, 2010; Rogers & Vismara, 2008). Social interaction between children with ASD and their peers increased when working one-to-one with peers in a small group or when activities were child-directed (Boyd, Conroy, Asmus, McKenny & Mancil, 2008; Guldberg, 2010). Furthermore, initiations between children with ASD and peers increased when adult involvement was minimal (Boyd et al., 2008; Guldberg, 2010).

### **Improving learning and teaching approaches and learners with ASD**

In response to teachers' concerns, various strategies and approaches have emerged to support inclusion (Forlin, 2008b; Norwich & Lewis, 2007). Findings have indicated that teachers may hold value positions on specific approaches or interventions for certain groups of learners which, according to Norwich and Lewis (2007), have an effect on further conceptualisation and utilisation of pro-inclusive strategies. Norwich and Lewis suggested a continuum of learning needs ranging from needs common to all through to specific needs unique to the individual correspondent with perspectives of general and unique differences (Humphrey and Symes, 2010; Norwich & Lewis, 2007). Additionally, students' individual characteristics, development and social experiences may inform teachers on student motivation for learning (Alexander, 2004; Fler & Hedegaard, 2010). It has been suggested that proficient teachers utilised their understanding of socio-cultural influences to bring about student success and achievement (Florian, 2009; McInerney, 2010).

## Hong Kong

**School placements.** Hong Kong provides a range of education provision for children with Special Educational Needs (SEN); for example, segregated special schools, schools for students with moderate learning difficulties and regular school, similar to educational provision in the United Kingdom and Australia (Peters & Forlin, 2010).

Whilst equal opportunity is stated as the fundamental direction of inclusive education, the Hong Kong government has been concerned with ensuring access for these learners to regular classrooms (Legislative Council of Hong Kong (LEGCO), 2008). Specific concerns included “the degree of reluctance to enrol students with ASD” (Peters & Forlin, 2010, p.94). In 2009/10, the Hong Kong Education Bureau (EDB) reported a total of 2050 children with ASD of school age, 1480 children being in regular primary schools (EDB, 2012).

**Pedagogy.** Research has found that pedagogy has remained didactic in the Asia-Pacific region, which has affected the development of inclusive practices of regular schools (Forlin, 2008; Forlin & Lian 2008; Forlin & Sin, 2010; Peters & Forlin, 2010; UNESCO& UNICEF, 2012a, 2012b). A number of factors have compounded pedagogy development in Hong Kong, for example, large class sizes, a lack of teacher expertise and teacher motivation (Peters & Forlin, 2010). According to Jin, Yeung, Tak-On Tang and Low (2008), teachers experienced increased stress levels in defining and implementing best practice for learners with ASD.

As the numbers of students with SEN admitted to regular schools in Hong Kong have increased in recent years, so challenges have risen surrounding the traditional practices of teaching (Forlin & Rose, 2010; Forlin & Sin, 2010). Ling, Mak and Cheng (2010) found that teachers were willing to embrace student diversity, however, a knowledge gap regarding best practice for children with ASD was acknowledged. In addition, Ling et al. (2010) stated formal special educational training was not a requirement for teachers in regular schools. By contrast Forlin and Sin (2010) indicated that since 2007, the EDB have in conjunction with tertiary institutions, provided professional development to up-skill teachers in catering for student diversity and approximately 10 % of all teachers serving local schools were reported to have completed a 30-hour basic course (Forlin & Sin, 2010).

Despite local developments to improve catering for student diversity within schools, some parents opt for private educational provision. Schools operating in this sector offer a system based upon western inclusive practices and small class sizes. This provision includes a three-tiered model of intervention, commonly employed in schools in the United States and the United Kingdom (Peters & Forlin, 2010). Several private international schools offer this type of educational provision in Hong Kong (EDB, 2012) and one of the main service providers offers up to 98 primary school places for children identified with SEN.

There is a gap in the literature from Hong Kong concerning children with ASD within the learning communities of regular schools. The article, therefore, presents the findings of a study of 12 children with ASD who attended regular schools. A cultural historical perspective was adopted. The aims of the study were to explore the social communication and interaction, collaborative activity and participation of children with ASD in class based activities and expose

factors that contributed to their participation. This was an exploratory mixed method study (Creswell, 2008) that enabled the researcher to explore various points of view before developing a social communication and interaction model. Data for the section of results reported in this paper comprised observations and video recordings of the children in their regular learning environments, and recorded observations made by staff. The research question was, “How do young children with difficulties in social communication and social interaction participate in learning with others”?

## Method

### Participants

The sample comprised 12 children with ASD; ten children were Hong Kong Chinese, and two children from expatriate families. The children attended Year 1 or Year 2 classes in three international primary schools. For reporting purposes, popular gender-neutral western pseudonyms were selected for the children.

The researcher obtained parental permission to access school records at the commencement of the study. Available reports indicated the use of the Wechsler Intelligence Scale for Children (WISC, 1991) by psychologists in Hong Kong. Table 1, therefore, is a summary of the information found in the children’s school records. The terminology for diagnosis varied amongst the reports, and the meaning between mild ASD, and mild AS (Asperger’s syndrome) was unclear. The term Asian referred to participants who were Asian and non-Chinese.

Table 1. *Information about the children with ASD in the study.*

	Age	Parent		Diagnosis	IQ		Overall
		Ethnicity Father	Ethnicity Mother		Verbal	Performance	
Cameron	5.0	Chinese	Chinese	ASD (m)	RM	RM	RM
Casey	6.0	Chinese	Asian	ASD			
Charlie	6.7	Chinese	Chinese	AS (m)	RM	RM	RM
					RM	RM	RM
Dakota	6.1	Chinese	Chinese	AS	105	75	94
Devin	5.9	Chinese	Chinese	(PDD)	80	112	92
Dylan	5.1	Chinese	Chinese	ASD (m)	90	121	104
Jessie	7.0	Caucasian	Chinese	AS	RM	RM	RM
Jamie	6.1	Chinese	Chinese	AS	106	77	94
Jordan	6.2	Chinese	Asian	ASD (m)	72	101	Not computed
Ali	6.0	Asian	Asian	AS	81	82	79
Avery	5.9	Caucasian	Chinese	ASD (m)	101	103	101
Alexis	5.0	Caucasian	Caucasian	AS (m) & AD/HD	91	105	104

*Note.* Autism Spectrum Disorder (ASD), Attention deficit/ hyperactivity disorder (AD/HD), Asperger’s Syndrome (AS), Pervasive Developmental Disorder – Not Otherwise Specified (PDD NOS). Report Missing (RM), Mild (m)

The range of intelligence quotients (IQ) for the children was recorded 93-106. Scores of 96-106 were reported average and IQ scores of 95 and lower were reported below average. Eleven parents confirmed their child's diagnosis of ASD, however, one parent preferred to refer to her child's social interaction and communication difficulties. At the time, three parents were waiting for formal assessment outcomes from registered educational psychologists, as this was a school requirement. Scrutiny of the children's school records indicated a lack of Individual Education Programmes (IEPs), which might have been because the children had just started the school year.

### **Procedure**

Ethical guidelines of the supporting University were adhered to and approval for the study was obtained prior to its commencement.

Scrutiny of the EDB website revealed 16 regular schools catered for children with SEN within the international school system. The researcher contacted the schools by email; three schools responded and meetings were arranged with the special educational needs coordinators (SENCO) at each school. The SENCO identified the children in agreement with their line manager, and the children's parents were sent a letter constructed by the researcher requesting permission, which was granted by all parents.

### **The school setting**

The primary schools were co-educational; approximately 120 children enrolled per year in two schools, 90 children per year in the smaller school. Although each school was English as a Medium of Instruction (EMI) and English was a prerequisite for attendance, most children attending each school were bilingual. The schools followed the Primary Years Programme (<http://www.ibo.org/pyp/>).

The buildings were multi-storeyed with playgrounds at lower levels, a feature that typifies many schools in Hong Kong. Each had soft covered ground surfaces, undercover play areas and, to ensure the children's safety, secure perimeter fencing as school buildings were situated in busy traffic areas.

### **Data collection**

One researcher was responsible for gathering data, which included video recordings and field notes. A video camera was the main instrument used to capture events as they occurred and meant the children's social interaction and communication with peers and adults was easily observed. The camera was particularly useful in settings where activities involved lots of movement. Approximately six hours of in-class video data were collected that amounted to 30 minutes of video footage taken for each child. From this, at least 15 minutes of busy classroom activity were extracted. Field notes and recorded discussions with teachers verified video footage.

Video data analysis involved two people watching the video footage and recording the types of social communication and interactions that occurred during 15 minutes of busy classroom activity. The observers agreed on the identity of activity that comprised the children being task-focused, their movement around the class and engagement with others. Categories of

interaction and communication were deciphered using the Modified Classroom Observation Schedule for Measuring Intentional communication (M- COSMIC) (Clifford, Hudry, Brown, Pasco & Charman, 2010) as a guide.

**Data analysis**

The study employed Creswell’s (2008) six steps for qualitative data analysis to determine themes. This iterative process applied categorical coding, which was conducted by one researcher. Themes were reviewed and verified in discussion with two others.

**Results**

The results focus on the broad theme of opportunity. The inductive analysis of data revealed eight minor themes subsumed to three major themes of home, after-school activities and school to comprise the broad theme of opportunity. The hierarchy of themes for this broad theme are depicted in Figure 1.

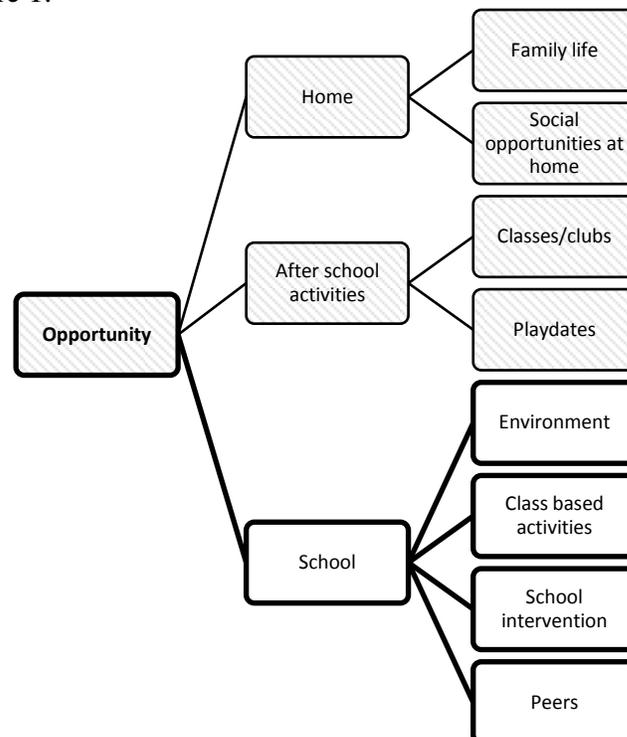


Figure 1. The themes contained within the broad theme of opportunity, indicating the major theme of school.

As can be seen in Figure 1, four minor themes comprised the major theme of school. The themes were environment, class-based activities, school intervention and peers.

**Environment**

The first minor theme was environment - all teachers reported that it affected learning for children with ASD. Teachers at Casey, Charlie and Cameron’s school highlighted school organizational issues were a particular contributor to the children’s difficulties in class. Two Year 1 classes, each comprising 30 children, were grouped together with two teaching staff and

two educational assistants. The staff catered for a heterogeneous group of 60 pupils aged between 5 and 6 years of age. Casey's teacher's observation is provided as an example of teacher concerns about the environment at this school.

There is too much going on - too many children. Although the routines are the same because we run everything together, we found that Casey found it much more difficult to cope in that environment instead of the teacher with their thirty children in their box, with their rules. It's something historically people have noticed, where behavior becomes more of a non-issue once they get to the year two's and year threes. That could be them growing up, it's just happened far too often. (Casey's teacher)

Teachers who worked at the other two schools did not identify similar environmental challenges. For instance, staffs at Devin, Dakota, Dylan, Jamie, Jessie and Jordan's school were in support of inclusive model adopted at the school. This school had two classes per year and children with SEN were grouped together in one class of 30 children. The class had daily contact with a designated teacher from the learning support department: in-class support incorporated team teaching and additional TA support.

Ali, Avery and Alexis were also in classes of 30 children; however, the children with ASD were not grouped together in one class. These children were placed in two of the four classes that comprised Year 1. At this school a withdrawal model for specific interventions was employed.

Teachers noted situational difficulties, such as public holidays or having two children with ASD in the same classroom, contributed to the disruptive behavior of all class students. Cameron's teacher commented that,

Cameron is finding it very, very hard to sit down with the other children when he used to be able to. [I don't know] whether it's a funny phase he is going through, but all the children are, and we haven't had a full week.

Similarly, teacher concerns were raised when two children with ASD were in the same class group. Ali and Alexis' teacher remarked,

Alexis and Ali are becoming very good friends but I am getting an awful lot of behavior from them, like running round the classroom. She is actually looking at Ali and copying her behavior. They are not helping each other.

### **Class-based activities**

Class based activities was one of four minor themes subsumed to form the major theme of school. This minor theme focused on the range of activities and opportunities for interaction.

Teacher interaction with the whole class and the children with ASD occurred in four different ways during class-based activities; whole-group instruction, small-group, individual instruction and supporting child/peer collaboration. Figure 2 shows the types of interactions that occurred between teachers and children with ASD in their class and the approximate duration of interaction. There were six teachers.

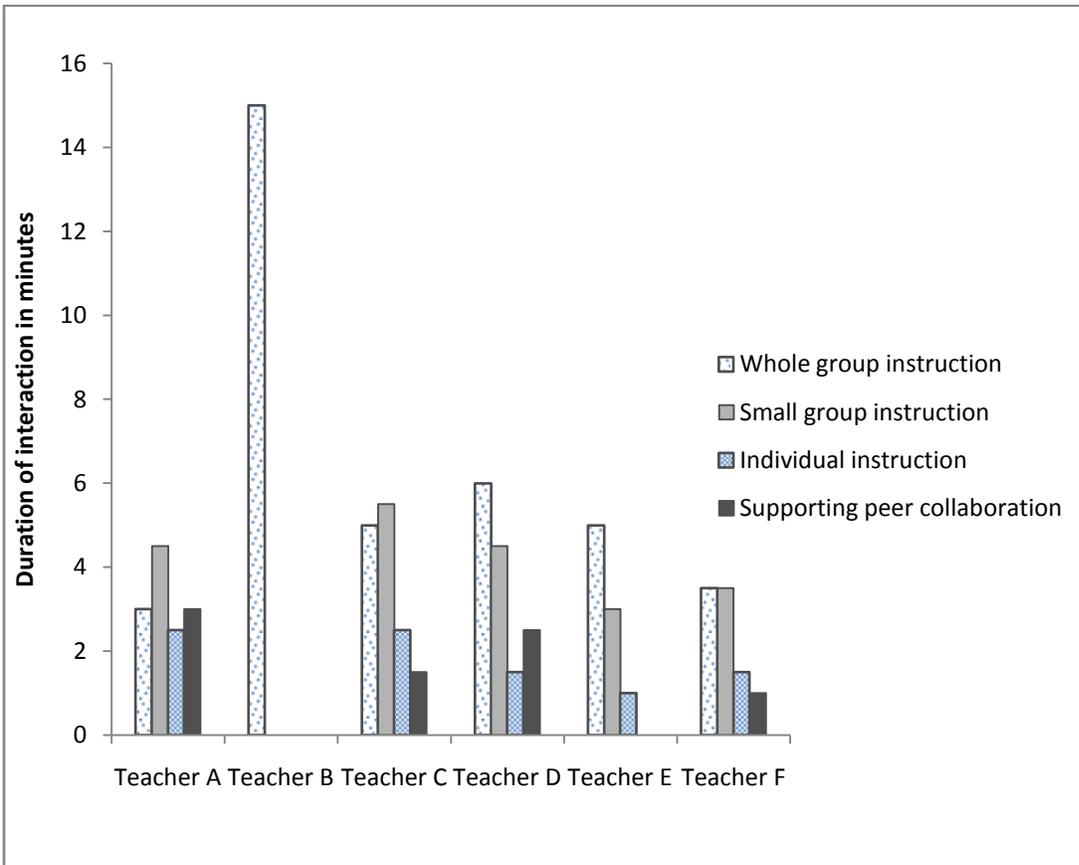


Figure 2. Class based activities led by teachers

The four types of interactions are described under subheadings; whole group instruction, small group instruction, individual instruction and supporting pupil collaboration.

**Whole group instruction.** The following is a description of typical activities observed in whole group instruction. The teacher’s introductory instructions to the whole group took approximately five minutes after which the class located required materials and sat at allocated tables. Locating materials took three minutes for the children with ASD - no incidental child/peer interactions occurred during this transition time.

The tables in the classroom were arranged for groups of eight children. The class remained seated for the duration of the lesson (approximately 35 minutes) and the teacher and one TA approached individual children to direct tasks, maintain attention and ask questions in relation to the task or topic. In addition, a small table for two children served as a computer workstation where tasks involved completing an individual writing task using a simple word document programme. Charlie was task focused and did not engage with the other child sitting opposite.

Casey was part of a group of eight peers solving mathematical problems. Casey found it difficult to concentrate on the task and was easily distracted by other children. Peers also found it

difficult to concentrate on the task in hand. Collaborative learning amongst the group of children at the table was minimal, however, the teacher's expectation for cooperative problem solving was difficult to ascertain, although towards the end of the activity she suggested they ask each other for help (Field notes from Charlie and Casey's class). The M-COSMIC was used as a guide to interpreting the children's interactions, and few interaction behaviours were observed in this type of class-based activity.

Another example of whole-group activity was story time in the school library. The children with ASD in this instance were seated next to the teacher. The children found it difficult to concentrate on the story unless they saw the pictures in the book. Furthermore, the teacher assistant frequently reminded all the children about sitting appropriately. Interaction behaviours of the children with ASD included gaining attention from the adult and joint attention. Behaviour regulation involved gaining the children's compliance in the library and helping them to understand the conventions for group story time.

**Small-group instruction.** Observations of small group instruction activities included shared-reading with four to seven peers. In this scenario, each child had the same copy of the reading book. The children took it in turns to read the story and answer questions asked by the teacher or TA. Observed types of interactive behaviours of the children with ASD were joint attention, gaining attention from an adult and vocalisation in response to the adult.

**Individual instruction.** Individual instruction comprised the teacher or TA giving feedback to students on individual work, helping to maintain the children's attention within the class group or small-group activity, and/or rewarding appropriate behaviour. Observations indicated the children with ASD frequently sought individual instruction, for example Jessie, Jamie and Jordan presented their completed work to the teacher for verbal and written feedback immediately after they completed the task. In particular, Jamie and Jordan were often observed either standing in a queue or sitting with their hand raised to see the teacher.

**Supporting pupil collaboration.** This type of interaction included the teacher, the child with ASD and a peer for shared-reading activities. Two observations of this type activity involved Dakota and Dylan. The children and peers were encouraged to share a book with a peer, taking turns to read to the peer and turn pages. The teacher sat next to the children and prompted them to take turns. Supported collaboration, however, was the least observed class based activity from data. The interactive behaviours of the children included joint attention and vocalisation, gesture and pointing.

### **School intervention**

The minor theme of school intervention related to the models employed at the school. School based intervention comprised a three-tiered intervention model to cater for the needs of children with SEN and access to specialist therapy input. In two schools a SENCO provided advice to regular school staff, extra staff and remediation for the children. Alexis, Ali and Avery's teachers described the types of support available for the children with ASD in their classes,

They are getting "Let's decode", the SENCO sends someone to work with them three times a week, and Ali's got 17.5 hours individual a week so s/he is getting everything. She is out the class; in the class-, she's got lots of support. She's done this all year. She has had it from day

one, but it's never one-on-one, in that it's just Ali. I always have a few, so it's not excluding Ali out of the classroom. Alexis has support, s/he has fine motor skills where s/he goes out the class, she's got someone to support her three times a week, 45 minutes each time. She's not concentrating and lying on the carpet (Ali and Alexis' teacher).

**Special educational needs coordinator.** Each school employed a Special Educational Needs Coordinator (SENCO) whose role included assessment and direction of small withdrawal groups for various activities such as a gross motor activity programme at Casey, Cameron and Charlie's school and remedial activities at Alexis, Ali and Avery's school. At the other children's school a teacher from the learning support department was attached to regular classes. The teachers at this school adopted a team-teaching approach to support all children, and the regular class teacher and the teacher from the learning support department took it in turns to lead class activities and support the children with SEN and or ASD. The support given to the children in class depended on the child's needs.

**Teacher assistant support.** TAs were employed in all Year 1 classrooms. In addition, all schools employed additional TAs to provide individual support to students with identified special educational needs. TA support for children with individual needs included in-class support for Ali and Alexis, Cameron, Dakota and Devin. In addition, some parents privately funded TAs - for example, Ali was provided with extra adult help because of her additional physical needs (the teacher also directed this TA to support small group work that included peers).

Ali and Alexis' teacher considered the support from the TA was instrumental in helping to regulate the children's classroom behaviours. TAs also supported the children in many activities around school especially at class transition times and particularly when the children changed clothes for a physical education lesson.

## Peers

The minor theme of peers concerned behaviour, peer interactions with children with ASD and unsupported activities.

**Behaviour.** Specific challenges for reception teachers involved student behaviour. Ali and Alexis' teacher emphasised that all the children on entry to school were emotionally immature and lacked self-organisation. More specifically, she felt that peer cohort immaturity concerning behaviour and self-regulation contributed towards the frequency of distractible behaviour exhibited by the children with ASD,

Organisational skills are poor. Potentially it depends on the child and their problems, but it's their expecting people to do it for them. They are not used to doing it themselves. They throw their bag on the floor and think we are going to pick it up and organize it for them. They've been spoon-fed. Obviously there are some children who can't do it and that's ok - we help them (Ali and Alexis' teacher).

**Interactions with peers.** Interactions between the children with ASD and peers varied and the social interactions recorded ranged from initiating conversation, smiling, and sharing activity, to pulling faces, shoving, taking things and ignoring children with ASD. Social interactions were divided into positive (e.g., smiling) and negative interactions (e.g., ignoring).

Figure 4 shows the frequency of peers' interactions that were positive and negative with the children with ASD.

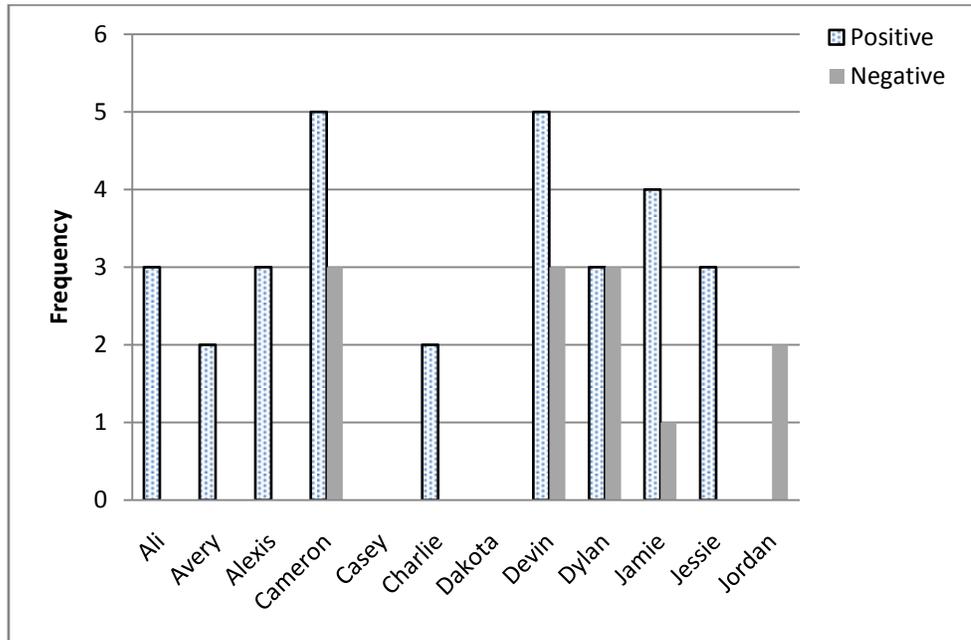


Figure 4. Positive and negative interactions of peers with children with ASD in class.

As seen in Figure 4, peers initiated positive interactions with children with ASD in the classroom environment. Most of the positive interactions recorded, however, were brief and incidental rather than purposeful. No interactions occurred between Dakota and peers, and Casey was absent. Furthermore, interactions tended to occur when the class transitioned from one activity to another, such as changing reading books. An example is provided through video data captured for Devin. The interaction took place outside the classroom area in the book corridor.

Peer: Are you level four?

Devin: Let me out my way! Let me out my way! [Devin has back to peer and bookcase and manoeuvres into a position nearer to the books.]

[Peer moves to TA and Devin moves.]

TA: (To Devin) Are you level three?

Devin: I am level four. I am! I am! [Faces towards books and away from TA and peer.]

Devin used his body to create a barrier between himself and the peer, which prevented her from accessing the bookcase. At this point, the TA intervened.

This example of dialogue shows that Devin's perception of the situation prevented him from engaging with the peer in a pro-social way.

**Unsupported Activities.** At Avery, Alexis and Ali's school, Avery's teacher divided the class into small groups for Mathematical activities. For example, Avery's group was asked to record the number of times they could do a star jump within a minute. Each child had paper and pencil and an egg timer was placed on the table. Once the egg timer was started, the children

counted how many star jumps they could do before the sand ran out. In this activity the children copied each other's actions, counted their own star jumps and wrote down the score.

According to video data minimal collaboration occurred between children with ASD and peers during computer work. Jamie and Alexis monopolised the computer, however, peers were observed to offer suggestions to the children to complete the task. All the children found it difficult to know when to take turns at the computer game, and the children with ASD were observed not listen to the suggestions of peers.

## Discussion

The school environment offers a new and wider range of social encounters for children with ASD as each child becomes a part of their learning community. This environment is one of the first where social communication and interaction occurs with peers without parent mediation or presence. Findings indicate that teachers generally have positive attitudes towards children with ASD, however, it would seem constrictions emerge from the cultural historical practices found within schools.

Common practices observed at each school include the provision of at least one teacher with specialist training and additional TAs. Schools also assume responsibility for the children's intervention. Common intervention approaches include a three-tiered intervention model to cater for individual needs and access to parent-funded speech and language and/or occupational therapy services. Cultural historical practices within the schools, however, are considered to affect children with ASD's participation in learning with others which involve the environment, class-based strategies and peers.

**Environment.** Teachers indicate that their choice of pedagogy is based upon the lesson objective and activities, however, choices may indirectly reflect the cultural and historical practices found within schools, for example class organisation, and staff knowledge of expertise. Furthermore, cultural historical practices may indicate the extent of the children's prior learning experiences and exposure to social experiences, as in found in other studies (e.g., Flear & Hedegaard, 2011).

In the present study, teachers feel that class size particularly affects how they manage learners with ASD. Discussions with teachers at one school reveal that two teachers cater for 60 children with two TAs in support. Teachers at this school consider the inclusion model at the school affects how they address the children's' individual needs. Although models of support includes the provision of a SENCO and TAs at each school, the findings for withdrawal classes and remediation suggests the modus operandi is affected by tradition. In addition, regular teachers may not have an understanding of the skills and expertise of specialist colleagues. Where team teaching is deployed there is no need for the students' withdrawal. Specialist teachers, therefore, must be given the opportunity to explore how their skills transfer to regular classrooms.

**Class-based strategies.** Findings indicate that school based universal strategies include in-class support (e.g. TA) and tiered levels of intervention. There is a lack of evidence for the use

of individual and/or specific strategies for children with ASD in class-based learning. Findings suggest that teachers may not have experience of using individual strategies or that they held value positions concerning certain approaches or interventions for learners with ASD (Norwich & Lewis, 2007).

Teachers in all three schools rely on adult support to regulate class and individual students' behaviours. Three teachers indicate that disruptive behaviours are more likely to occur when TAs are not available for in-class support. This finding denotes two possibilities; a) teachers rely upon their experiential knowledge with regard to the behaviour management of children with ASD, and/or b) they are particularly sensitive about certain children's behaviours (e.g., Gerber and Semmel, 1985). If learner participation is to increase, then adult input must be re considered (e.g., Boyd et al., 2009, Guldborg, 2010). Further consideration may be given to how children's behaviours are perceived. The children's issues of social communication and self-regulation, such as blocking peer access to books and the use of loud speech, might be interpreted as challenging behaviour, however, it might also be that the child uses sensory-motor problem solving strategies which, according to Bodrova and Leong (2009), are developmental strategies used by young children, therefore, this perception may also apply to peers.

**Peers.** Teachers' descriptions of peer cohort behaviours indicate that peers also lack maturity, particularly in organisation skills and cooperative activity and have high expectations of adult help and lack emotional development. At Ali, Avery and Alexis' school the teachers express that managing children in Year 1 and children with ASD in the same class is a challenge, which would seem to reflect the research findings of Gerber and Semmel (1985). By contrast, teachers of children with ASD in Year 2 make few comments about the children's behaviours, which implies that behaviours for learning are cultural and cumulative. This finding resonates with the work of Flear and Hedegaard (2010) and children with Attention Deficit and Hyperactivity Disorder.

A number of limitations placed constraints on the study which included; the small sample size, gaining access to information in schools and the quality of information provided. In some cases, reports had been conducted in the child's fourth year and were out of date and others were missing. In addition, timetabling and class issues prevented data collection other than at specified times. Communication systems in schools, staff roles and concepts of the needs of children with ASD were also accentuated. Furthermore, cultural understandings and traditional approaches adopted for children with ASD were particular to the schools.

## Conclusions

As more children with ASD attend regular schools, greater awareness through reflection on practice and pedagogy development for inclusion is needed. Reflection upon the meaning of engagement with learning and student participation must become a priority for constructing positive learning communities from pre-school to the end of regular school. Acceptance and presence of children with ASD into regular schools is a small part of inclusive education, other essential ingredients being student participation and achievement, as emphasised by Humphrey (2008). Active participation in learning activities therefore, must be a priority for all learners (Lave & Wenger, 1991; Alexander, 2004; Norwich & Lewis, 2007; Humphrey, 2008) and adult

support must help develop autonomy of the child with ASD. Two areas are proposed for further consideration, namely development of class support and strategies for increasing student participation and cooperation.

**Class support.** Teachers see TA support as positive and there are indications that student disruptive behaviours are more likely to occur in class in the absence of such support. Thus, training TAs to support all children towards greater independence and towards working with others is essential. Issues of general immature behaviour amongst Year 1 children add complexity to social aspects of collaborative learning and development in school: knowing how to approach these challenges in a constructive and informed way is essential. In addition, the pre-school years must focus on developing cumulative social experiences, and adopt a scaffolded approach that encourages the children's self-regulation development within a supportive and socially communicative environment.

**Strategies for increasing student participation and cooperation.** Universal strategies that incorporate tools and mediation should be emphasised. Systematic approaches that help children verbalise problems, model the use of signs, engender respect through collaborative activity and scaffold collective solutions to perceived problems is needed. These universal strategies support the development of children's life skills essential for successful learning, in addition to fostering positive learning communities. As mediation is an important part of cognitive development for typical children (e.g., Alexander, 2010), teachers need to consider more socially based and mediated approaches that support the learning activities they have planned especially when children with ASD are part of the learning community. By increasing peer involvement and participation, greater engagement in learning may be engendered.

School educational programmes and learning activities need further authentic evaluation to promote student achievement, especially as teachers increasingly cater for children with diverse needs. Socially based learning activities should be the norm, rather than having specific programmes aimed merely at increasing the social connections of students with ASDs. Reflections on current practice, therefore, can be a positive step for change and, as suggested by Humphrey (2008), inclusion should be considered a process rather than a state. Thus, for inclusive practice to be successful in the important early years of schooling educators must step away from *treating* children's specific needs and shift focus on social models of support within everyday learning.

## References

- Alexander, R. (2004). Still no pedagogy? Principle, pragmatism and compliance in primary education. *Cambridge Journal of Education*, 34(1), 7-33.
- Alexander, R. (Ed.). (2010). *Children, their world, their education: Final report and recommendations of the Cambridge Primary Review*. London: Routledge.
- Baron-Cohen, S. (2009). Autism: The Empathizing–Systemizing (E–S) theory. *The Year in Cognitive Neuroscience 2009: Annual New York Academy of Science*, 1156, 68-80. doi: 10.1111/j.1749–6632.2009.04467.x

- Blatchford, P., Bassett, P., Brown, P., Martin, C., Russell, A., & Webster, R. (2009). *Deployment and impact of support staff project*. Nottingham: Institute of London, University of London. (DCSF: RB148)
- Bøttcher, L. (2011). Cognitive impairments and cultural-historical practices for learning: Children with cerebral palsy in school. In H. Daniels, & M. Hedegaard (Eds.). *Vygotsky and special needs education: Rethinking support for children and schools* (pp.11–29). London: Continuum International Publishing.
- Causton- Theoharis, J. (2009). The golden rule of providing support in inclusive classrooms: Support others as you would wish to be supported. *Teaching Exceptional Children*, 42(2), 36-43.
- Cook, B.G., Tankersley, M. Cook, L., & Landrum, T. J. (2008). Evidence-Based Practices in Special Education: Some Practical Considerations, *Intervention in School and Clinic*, 44, 69. doi: 10.1177/1053451208321452
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, N.J: Prentice Hall.
- Daniels, H., & Hedegaard, M. (2011). *Vygotsky and special needs education: Rethinking support for children and schools*. London: Continuum International Publishing.
- Emam, M., & Farrell, P. (2009). Tensions experienced by teachers and their views of support for pupils with autism spectrum disorders in mainstream schools. *European Journal of Special Needs Education*, 24(4), 407-422.
- Fleer, M., & Hedegaard, M. (2010). Children’s development as participation in everyday practices across different institutions. *Mind, Culture, and Activity*, 17, 149-168. doi: 10.1080/10749030903222760
- Florian, L. (2009). Towards inclusive pedagogy. In P. Hick, R. Kershner, & P. T. Farrell (Eds.), *Psychology for inclusive education: New directions in theory and practice* (pp. 38-51). London: Routledge.
- Forlin, C. (2008a). *Catering for learners with diverse needs: An Asia Pacific focus*. Marden Professional Development Program. Hong Kong Institute of Education.
- Forlin, C. (2008b). Education reform for inclusion in Asia: What about teacher education? In C. Forlin & M-G. J. Lian (Eds.), *Reform, inclusion & teacher education: Towards a new era of special education in the Asia–Pacific region* (pp. 61-73). Abingdon, UK: Routledge.
- Forlin, C. (2010). Developing and implementing quality inclusive education in Hong Kong: implications for teacher education. *Journal of Research in Special Educational Needs*, 10(1), 177-184.
- Forlin, C., & Sin, K. F. (2010). Developing support for inclusion: A professional learning approach for teachers in Hong Kong. *International Journal of Whole Schooling*, 6(1), 7-26.
- Frederickson, N., & Cline, A. (2009). *Special educational needs, inclusion and diversity*. New York: Open University Press.
- Gerber, M. M., & Semmel, M. I. (1985). Microeconomics of referral and reintegration: A paradigm for evaluation of special education. *Studies in educational evaluation*, 11, 13-29.
- Giangreco, M. F. (2010). Utilization of teacher assistants in inclusive schools: Is it the kind of help that helping is all about? *European Journal of Special Needs Education*, 25(4), 341-345. doi: 10.1080/08856257.2010.513537
- Giangreco, M.F., & Doyle, M.B. (2007). Teacher assistants in inclusive schools. In L. Florian (Ed.), *The SAGE handbook of special education* (pp. 429-439). London: Sage.

- Guldberg, K. (2010). Educating children on the autism spectrum: Preconditions for inclusion and notions of 'best autism practice' in the early years. *British Journal of Special Education*, 37(4), 168-174.
- Guldberg, K., Parsons, S., MacLeod, A., Jones, G., Prunty, A., & Balfe, T. (2011). Implications for practice from 'International review of the evidence on best practice in educational provision for children on the autism spectrum'. *European Journal of Special Needs Education*, 26(1), 65-70.
- Humphrey, N. (2008). Including pupils with autistic spectrum disorders in mainstream schools. *Support for Learning*, 23(1), 41-47.
- Humphrey, N., & Lewis, S. (2008). What does inclusion mean for pupils on the autistic spectrum in mainstream secondary schools? *Journal of Research in Special Educational Needs*, 8(3) 132-140. doi: 10.1111/j.1471-3802.2008.00115.x
- Humphrey, N., & Symes, W. (2010). Perceptions of social support and experience of bullying among pupils with autistic spectrum disorders in mainstream secondary schools. *European Journal of Special Needs Education*, 25(1), 77 - 91.
- International Baccalaureate Primary Years Programme. (n.d). Retrieved from <http://www.ibo.org/pyp/>.
- Jin, P., Yeung, A.S., Tang, Tak-On., & Low, R. (2008). Identifying teachers at risk in Hong Kong: Psychosomatic symptoms and sources of stress. *Journal of Psychosomatic Research*, 65, 357-362.
- Lamb, B. (2009). *Lamb inquiry report: Special educational needs and parental confidence*. Retrieved from <https://www.education.gov.uk/publications/standard/publicationDetail/Page1/DCSF-01143-2009>
- Landa, R. (2007). Early communication development and intervention for children with Autism mental retardation and developmental disabilities. *Research Reviews*, 13, 16-25.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Legislative Council of Hong Kong Special Administrative Region (LEGCO) (2009). Replies to LEGCO questions LCQ18: Support services for autistic persons. Retrieved from [http://www.fhb.gov.hk/en/legco/replies/2009/lq090318\\_q18.htm](http://www.fhb.gov.hk/en/legco/replies/2009/lq090318_q18.htm)
- Ling, C.Y.M., Mak, W.W.S., & Cheng, J. N.S. (2010). Attribution model of stigma towards children with Autism in Hong Kong. *Journal of Applied Research in Intellectual Disabilities*, 23, 237-249. doi 10.1111/j.1468-3148.2008.00456.x
- McInerney, D. M. (2006). *Developmental psychology for teachers: An applied approach*. Australia: Allen and Unwin.
- McInerney, D. M. (2010). The role of sociocultural factors in shaping student engagement in Hong Kong: An ethnic minority perspective. *Public lecture series*. Hong Kong: The Hong Kong Institute of Education.
- Norwich, B., & Lewis, A. (2007). How specialized is teaching children with disabilities and difficulties? *Journal of Curriculum Studies*, 39 (2), 127-150.
- Parsons, S., Guldberg, K., MacLeod, A., Jones, G., Prunty, A., & Balfe, T. (2009). International review of the literature of evidence of best practice provision in the education of persons with autistic spectrum disorders. *National Council for Special Education, Ireland*. Retrieved from [http://www.ncse.ie/uploads/1/Autism\\_Report.pdf](http://www.ncse.ie/uploads/1/Autism_Report.pdf)

- Parson, S., Lewis, A., & Ellins, J. (2009). The views and experiences of parents of children with autistic spectrum disorder about educational provision: Comparisons with parents of children with other disabilities from an online survey. *European Journal of Special Needs Education, 24*(1), 37-58. doi: 10.1080/08856250802596790
- Parson, S., & Lewis, A. (2010). The home-education of children with special needs or disabilities in the UK: Views of parents from an online survey. *International Journal of Inclusive Education, 14*(1), 67-86. doi: 10.1080/13603110802504135
- Pearson, V., Lo, E., Chui, E., & Wong, D. (2003). A heart to learn and a heart to care? Teacher's responses toward special needs children in mainstream schools in Hong Kong. *Disability & Society, 18*(4), 489-508.
- Pearson, S., & Ralph, S. (2007). The identity of SENCOs: Insights through images. *Journal of Research in Special Educational Needs, 7*(1), 36-45.
- Peters, B., & Forlin, C. (2010). Chinese children with ASD in Hong Kong: Development of inclusive practice. *Journal of Research in Special Educational Needs, 11*(2), 87-98. doi: 10.1111/j.1471-3802.2010.01179.x
- Peters, B., & Forlin, C. (2011). Informing educational decisions in the early years: Can evidence for improving pedagogy for children with Autism Spectrum Disorder be found from neuroscience? *British Journal of Special Education, 38*(3), 135-142. doi. 10.1111/j.1467-8578.2011.00517.x
- Poon-McBrayer, K. F. (2004). To integrate or not to integrate: Systemic dilemmas in Hong Kong. *Journal of Special Education, 37*(4), 249-56.
- Rogers, S.J., & Vismara, L.A. (2008). Evidence-based comprehensive treatments for early autism. *Journal of Clinical Child & Adolescent Psychology, 37*(1), 8-38. doi: 10.1080/15374410701817808
- Symes, W., & Humphrey, N. (2011). School factors that facilitate or hinder the ability of teaching assistants to effectively support pupils with autistic spectrum disorders (ASD) in mainstream secondary schools. *Journal of Research in Special Educational Needs, 11*(3), 153-161. doi.10.1111/j.1471-3802.2011.01196.x
- United Nations Educational Scientific and Cultural Organisation & United Nations International Children's Emergency Fund (2012a). Asia Pacific end of decade notes: Early childhood care and education. Retrieved from <http://www.unicef.org/rosa/217145e.pdf>
- United Nations Educational Scientific and Cultural Organisation & United Nations International Children's Emergency Fund (2012b). Asia Pacific end of decade notes: Quality education. Retrieved from <http://www.uis.unesco.org/Library/Documents/asia-pacific-efa-goal-6-quality-education-2012.pdf>
- Wechsler, D. (1991). *Wechsler Intelligence Scale for Children* (3rd Ed.). San Antonio, Texas: The Psychological Corporation.
- Whittaker, P. (2007). Provision for youngsters with autistic spectrum disorders in mainstream schools: What parent's say- and what parents want. *British Journal of Special Education, 34*(3), 170-8.
- Wong, K. P., Pearson, V., & Lo, M. K. (2004). Competing philosophies in the classroom: A challenge to Hong Kong teachers. *International Journal of Inclusive Education, 8*(3), 261-279.