# AUTISM AND EDUCATION

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# AUTISM AND EDUCATION

## VOLUME III

*School, Teacher and Support Staff Issues in Autism Education*

Edited by

Neil Humphrey

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# Introduction: School, Teacher, and Support Staff Issues in Autism Education

*Neil Humphrey, Caroline Bond, Judith Hebron, Wendy Symes, and Gareth Morewood*

## Introduction

In this volume we explore a range of issues relating to staff involved in supporting students with autism spectrum conditions (ASC) in school. We refer primarily to teachers and paraprofessionals (e.g. teaching assistants) as these are the individuals most closely involved in shaping and delivering education in the classroom. In Bronfenbrenner's (2005) terms, they are central agents in the classroom micro-system, while also being active in the primary meso-system link with parents and family. However, in keeping with a whole-school framework for autism provision (Morewood, Humphrey, & Symes, 2011 – see Volume 4), we also acknowledge the importance of other adults who reside in the broader school exo-system, and devote some of our discussion to the physical design of the school itself and the learning spaces within it.

## Training and Professional Development of School Staff in Autism Education

An inarguable influence on the ability of school staff to respond to the needs of students with ASC is the training they have received, both initially and subsequently as part of their on-going professional development. Rising prevalence rates and education policy shifts towards inclusive education in the last two decades mean that more children and young people are being diagnosed with autism than ever before, and they are increasingly likely to attend a mainstream school. Indeed, the vast majority of teachers report having taught a child who they knew to have an autism diagnosis (Humphrey & Symes, 2013). High-quality training about autism is therefore essential. It can raise awareness of the unique profile of difficulties and strengths associated with ASC, improve knowledge and attitudes, highlight key principles of effective practice, and draw practitioners' focus away from unsupported

and controversial interventions that may ultimately prove to be ineffective or even harmful (Barnhill, Polloway, & Sumutka, 2010; Scheuermann, Webber, Boutot, & Goodwin, 2003).

Given the above, what we do we know about personnel preparation practices in this area? Coverage of autism in initial teacher education courses certainly lags behind the trends noted above in terms of prevalence and policy. Thus, provision has arguably not kept full pace with the needs of the field. Indeed, some of the policy advances may have actually stymied progress in this regard. Thus, the shift away from a categorical approach to special educational needs and disabilities that accompanied the inclusive education movement may have made the notion of autism-specific training for ordinary teachers unpalatable to providers. Indeed, just 15% of teachers surveyed in one southern state in the United States reported receiving training on autism from their colleges or university. For those where this had been included in their preparation programme, the most common format was a brief introductory workshop (Morrier, Hess, & Heflin, 2010). In a more comprehensive study that explored the practices of more than 180 higher education institutions in 43 states, Barnhill et al.'s (2010) findings were somewhat more promising, indicating that many offered some form of personnel preparation for ASC. However, the nature of these programmes was extremely variable. Thus, training of school staff is often highlighted as a weak link in efforts to improve the educational experiences and outcomes of students with autism (National Research Council, 2001).

Where autism training *is* provided, what does effective practice look like? Timing is certainly critical; Scheuermann et al. (2003 – included in this volume) report that autism training is too often responsive (e.g. a teacher is sent on a training course in response to the arrival of a student with autism in his/her class) rather than pro-active (e.g. during initial training). So early training is helpful, but it also needs to be continual: 'The challenge . . . is to choose and implement effective approaches for personnel preparation, beyond a single training effort, to provide a continuum of services across time' (National Research Council, 2001, p. 183). In terms of content, our general differences theoretical framework (Lewis & Norwich, 2005 – see Volume 1) would predict that a balance in coverage of group needs and individual differences in autism is the optimal approach. This is supported by Scheuermann et al.'s (2003) summary of competency areas for teachers of students with ASC: *basic knowledge* (e.g. characteristics, diagnosis), *parental involvement* (e.g. family issues and perspectives), *theoretical bases of instructional approaches* (e.g. applied behavioural analysis), *curriculum development* (e.g. futures planning), *additional strategies* (e.g. establishing joint attention), *teaching language and communication* (e.g. alternative communication) and *social competencies* (e.g. social scripts and stories), *adaptive behaviours and transitions* (e.g. teaching age-appropriate skills), *structure and the classroom* (e.g. using visual supports), *trial-by-trial teaching* (e.g. prompting), *naturalistic*

*teaching* (e.g. lesson planning), *decreasing problem behaviours* (e.g. positive behavioural support), and *special issues* (e.g. fad cures). Importantly, these authors also acknowledge the importance of providing equivalent training for paraprofessional staff (e.g. teaching assistants), highlighting the fact that many students with autism will likely spend more time with these individuals than they do with their teachers.

## Teacher 'Will and Skill'

Our overarching thesis is that there are essentially two fundamental, interrelated elements that determine how, what, when, and why educators enact practices that affect the experiences and outcomes of students with ASC. These we term their 'will' and 'skill', respectively. In relation to the former, we consider attitudes, values, and beliefs relating to autism (and by extension, conceptions of disability, and diversity), and one's ability to meet the needs of such children. In relation to the latter, our interest lies in the constellation of professional knowledge and competencies that may better equip staff to deal with the challenges and opportunities posed by teaching those with autism, whose profile of needs frequently challenge their professional assumptions about teaching and learning (Jordan, 2005).

What do we know about teachers' attitudes, beliefs, and values in relation to autism? It may be helpful to first consider how these are formed. Bronfenbrenner's (2005) bio-ecological systems theory lends itself to application once more here. Thus, we see influence across different ecological systems, including parents, family and peers, culture, and the mass media (Park, Chitiyo, & Choi, 2010). Explicit intervention can also be a powerful agent – hence the emphasis on training and professional development above. Finally, we know that direct exposure is important – those individuals who have not had contact with children with autism may be more likely to develop negative attitudes that are based on stereotypes (of course, this also applies to other disabilities) (Park et al., 2010); conversely, those with experience of autism typically demonstrate more positive attitudes and confidence in their ability to meet children's needs (McGregor & Campbell, 2001). Teachers' attitudes, values, and beliefs are particularly important because they can affect subsequent expectations and behaviour towards individual students. This has obvious pedagogical implications in terms of meeting students' needs effectively, but also resonates throughout the classroom and school microsystems to influence the behaviour of peers. As Sciutto, Richwine, Mentrikoski, and Niedzwiecki (2012 – included in Volume 1) note, teachers 'set the tone' for acceptance or rejection of students with autism.

The importance of teacher attitudes, beliefs, and values in relation to autism is also reflected in a steadily growing body of research. In an early example, Helps, Newsom-Davis, and Callias (1999 – included in this volume)

surveyed teaching and support staff in both mainstream and specialist settings in England, and contrasted these with an 'expert' reference group of mental health professionals. The authors found that, 'many [teachers] harboured out-dated beliefs . . . while other remains confused and unsure' (p. 296), although those working in specialist settings demonstrated a greater understanding of appropriate strategies. This mainstream-specialist dichotomy was mirrored in the findings of McGregor and Campbell (2001) who reported that only a minority of mainstream teachers believed that full integration of children with autism should be promoted where possible (although this varied as a function of experience). There was also a very telling split in respondents' views on the factors that affect inclusion, with specialist school staff much more likely to endorse the notion that successful integration of children with autism depends upon staff attitudes. Worrying as these findings may appear, they are very much a product of their time, inasmuch as the underpinning research was carried out at a point when the gap between the political rhetoric of inclusive education and the reality 'at the chalkface' was perhaps at its largest (from an eco-systemic viewpoint, this provides a strong example of how the chrono-, macro-, and micro-systems may exert their influence through interaction). More recent research demonstrates how much has changed. For example, in a study conducted by the authors that drew upon the survey items used by McGregor and Campbell (2001), the overwhelming majority of mainstream staff surveyed agreed that full integration of children with autism should be promoted where possible (Humphrey & Symes, 2013). In a similar vein, Park and colleagues found that most serving and pre-service teachers in the United States harboured positive attitudes towards children with ASC (Park & Chitiyo, 2011; Park et al., 2010).

Despite the generally positive attitudes, beliefs, and values about autism held by most teachers currently, there are still some very clear challenges posed. As noted above, the core characteristics of ASC confront many educators' assumptions about teaching and learning in ways that they may find difficult to reconcile. In both our study and that of McGregor and Campbell discussed above, some of the social and emotional manifestations of autism were rated as being very difficult to manage, including 'inappropriate' emotional displays (e.g. screaming) and problems with social understanding (e.g. turn-taking). These findings are offered support in Emam and Farrell's (2009) case studies of the relationship between teachers and children with autism in the classroom. Interestingly, these authors hypothesised that the tensions experienced fed a reliance on teaching assistants. That is, the delegation of responsibility for meeting a given child's needs was mandated by the extent to which the teacher felt able to cope with their differences (indeed, our own research showed that teachers strongly endorsed the view that successful inclusion of students with ASC was largely dependent upon paraprofessional staff – Humphrey & Symes, 2013). Robertson, Chamberlain,

and Kasari's (2003 – included in this volume) study demonstrates the reciprocal nature of this relationship and its influence on the broader classroom ecology – they found that the levels of behaviour problems exhibited by students with autism was directly related to their relationship with their class teacher, which in turn influenced the extent to which they were socially included in the classroom (e.g. students who were reported to have positive relationships with their teacher displayed lower levels of behaviour problems and were more socially included in the class).

Of equal importance – and of course related to – teachers' 'will' is their 'skill' – the constellation of specialist professional knowledge and competencies that may better equip them to meet the needs of children with autism. Returning to Sciutto et al.'s (2012) work (included in Volume 1), we can again see the utility of seeking the perspectives of students with autism and their parents. In terms of qualities, their participants identified teachers who favoured the celebration of differences and individuality rather than conformity (overcame first impressions and recognised that usual practices would not be effective, were empathic and respectful, and took the time to understand the child as an individual. Associated strategies that were considered to be effective included incorporating special interests in any way possible, making the environment predictable, taking action to promote acceptance and understanding in the peer group, providing multiple methods to allow students to demonstrate their learning, and providing visual prompts to help students understand and navigate common situations. Triangulation with the views of teachers themselves in Lindsay, Proulx, Scott, and Thomson's (2014) recent Canadian study provides strong validation. It is noteworthy how these qualities and strategies align with the general differences pedagogical framework espoused by Lewis and Norwich (2005), insofar as they reflect a clear balance between addressing individual differences (e.g. taking the time to understand the individual), group characteristics associated with ASC (e.g. incorporating special interests, making the environment predictable), and universal needs (e.g. providing multiple methods for students to demonstrate their learning).

## Paraprofessional Support Staff: Training, Deployment and Teacher Relationships

Our discussion of issues relating to the use and effectiveness of paraprofessional staff in autism education requires some brief context setting regarding their role in supporting students with special educational needs more generally. These staff have been involved in special education for more than two centuries (Boomer, 1994), and typically have a variety of responsibilities, including behaviour management, direct tutoring, implementing interventions, and supporting students' learning and participation in the

classroom more generally (Young, Simpson, Myles, & Kamps, 1997). However, their widespread use in education (particularly in mainstream school settings – Howes, 2003) sits somewhat uncomfortably against the backdrop of a mixed and controversial evidence base about their utility, and there is little in the way of consensus as to the parameters of their role (Webster, Blatchford, & Russell, 2012). So, for example, a major review of the deployment and impact of support staff in English schools found that, 'the more support pupils received, the less progress they made' (Blatchford et al., 2009, p. 34). However, a recent systematic review conducted by our colleagues at the University of Manchester came to a different conclusion, namely that, 'pupils with identified difficulties in learning . . . improve significantly following a period of targeted intervention [from paraprofessionals]' (Farrell, Alborz, Howes, & Pearson, 2010, p. 435). What accounts for these apparently contradictory findings? As might be expected, there are a number of factors that determine the impact of this approach to supporting students with special educational needs, including the outcome(s) being assessed (e.g. academic attainment, social inclusion), the primary need(s) being supported (e.g. autism, specific learning difficulties), and the training, deployment, and teacher relationships of the support staff in question.

Paraprofessional support for children and young people with autism provides an exemplar case study of these issues. In terms of the specific needs associated with ASC, they can offer consistency and predictability when a student moves from one class or teacher to another (Symes & Humphrey, 2011), and can offer intensive one-to-one support that may be required to maintain focus and motivation (Young et al., 1997). Given the established issues in peer relationships among those with ASC (see Volume 2), support staff can also play a crucial role in promoting positive social interactions by acting as a mediator (although we would also note that their presence may also hinder this process in certain circumstances – Symes & Humphrey, 2012). With regard to professional development, long-standing general concerns about the mismatch between the training received by support staff, and the demands of their role are brought sharply into focus here. Knowledge and prior experience of autism are generally considered to be important in effectively supporting students and their teachers, but often little or no formal training[1] has been received by paraprofessionals, and indeed many have not worked with a child with ASC before (Glashan, Mackay, & Grieve, 2004; Young et al., 1997). However, it is noteworthy that many support staff feel that autism training per se would not be helpful, despite expressing concerns about 'being thrown in at the deep end' (Symes & Humphrey, 2011, p. 61). It may be that the nature of the paraprofessional role – which often involves 1:1 support for a student with autism over an extended period of time (see below) – serves to highlight the importance of individual differences more so than in cases such as the classroom teacher, where support is more distal and less intensive, and ASC training is more highly valued and sought after. Accessing in-house experience, expertise, and mentoring from the school's

special education co-ordinator is likely to be an effective alternative to 'formal' training where this is the case (Morewood, 2009).

The manner in which paraprofessional staff are deployed is also critical. Broadly speaking, this can be thought of in terms of a continuum from the individual student to the teacher/class/subject. At one extremity, the paraprofessional role may entail being physically located beside and supporting a specific student for the majority of the school day, with help rarely offered to others in the class. This is arguably the most frequently utilised approach in schools, particularly with regard to autism. However, this model can lead to an individual paraprofessional becoming 'synonymous' with a given student, to the extent that teachers may direct comments or instructions to the adult rather than the child (Hemmingsson, Borell, & Gustavsson, 2002). The model is often not favoured by students because of the negative attention it can draw from peers. This is a particular issue for those with ASC in mainstream settings, many of whom feel uncomfortable with their differences being accentuated in the presence of classmates (see Humphrey & Lewis, 2008, included in Volume 1). However, the student-oriented model promotes continuity and consistency for the child in question, while also enabling the staff member to develop a very high level of understanding of their needs over time. Furthermore, some aspects are associated with positive outcomes – for example, we know that the impact of teaching assistants is strengthened when they are responsible for delivering specific interventions (Farrell et al., 2010).

At the other extremity, support focuses on the teacher/class/subject rather than individual students. For example, a paraprofessional may develop a specific subject specialism, and therefore support a range of students in that area (Morewood, 2009; Symes & Humphrey, 2011). This approach enables support staff to become more knowledgeable about lesson content, and is associated with increased involvement in curriculum planning. The teacher/class/subject model may also circumvent some of the problems associated with the student-centred model (e.g. negative attention from peers is less likely if the paraprofessional is deployed in a 'floating' role where support is not focused solely on one individual). The approach arguably promotes greater independence and autonomy among students, while also naturally increasing engagement and interaction with the class teacher (e.g. analysis of student-centred teaching assistants' interactions with students showed that they were less academically demanding, placed a greater emphasis on task completion, and tended to close down rather than open up talk – Webster et al., 2012). However, there are a range of issues that can prevent or hinder this approach being utilised more frequently for students with autism. First, in England at least, funding of many paraprofessionals comes directly from funds secured to meet individual students' special educational needs identified in their Education, Care, and Health plans (or Statement of Special Educational Needs prior to 2014). This may mean that a student-centred model is considered more acceptable and practical. Second, the teacher/class/subject model means that there is less consistency and predictability

for the student, who is supported for relatively short periods by a range of adults who may know less about his or her individual needs.

Ultimately, the optimal approach may be a mixed and flexible model that combines the two extremities discussed above. Concurrent with this, there is a need to consider the relationship with the class teacher. In a recent autism education study conducted by two of the authors, paraprofessionals' relationships with teachers were found to be highly variable, but improved with experience and were generally more positive when they were deployed to a particular department (Symes & Humphrey, 2011). How they were viewed within the school – particularly the extent to which their expertise and experience was sought and valued by teachers and other members of school staff – was a critical part of this.

## The Design of Learning Spaces and the Autism-Friendly School

A relatively neglected area of autism education is the design of the school itself and the learning spaces within it. Possibly as a result of the inherently social nature of the condition, attention has traditionally been focused on people (e.g. teachers, support staff, peers). But this may be a slight misnomer, as autism is also associated with significant sensory differences. Thus, in conceiving the autism-friendly school it is vital that we consider, 'how they experience the environment and the people and objects within it' (Scott, 2009, p. 36). The characteristics of classrooms, corridors, and playgrounds may present a barrier for some young people with ASC. One useful example is the sloped ceiling seen in some classrooms, a characteristic which caused a significant amount of anxiety for one student with autism in one of our research schools (see Morewood et al., 2011 – included in Volume 4). This kind of issue can be easily fixed through a change of timetabled room provision. However, not all such issues are straightforward, and in such cases more substantive adjustments are warranted. For example, some students with ASC may find the open plan layout of classrooms difficult to deal with; for these children, screens and booths inspired by TEACCH workstations (Mesibov & Howley, 2003) offer a workable solution.

Scott (2009 – included in this volume) outlines a range of principles for the design of autism-friendly learning spaces. These include the following requirements: (i) to provide an ordered and comprehensible spatial structure (e.g. ensuring that visual cues, lighting arrangements, and texture changes are consistent with an overall hierarchy so that this is predictable); (ii) to provide a mix of large and small spaces (e.g. ensuring that there is a withdrawal space associated with a given classroom); (iii) to provide greater control of the environmental conditions to the user (e.g. ensuring that the amount of sensory stimulation from lights and other sources can be adapted to suit

individual needs); (iv) to accommodate autism-specific teaching approaches in the learning space (see the aforementioned TEACCH workstation example; additionally, increased emphasis on visual approaches to learning, with objects, pictures, and symbols); (v) to balance security and independence (e.g. having space in which students can work together autonomously, thus fostering social interaction, but with the opportunity for unobtrusive monitoring and the option of individual space if the student expresses a need or preference for solitude); (vi) to provide simple and reduced detailing (e.g. limited palate of colours); (vii) to involve the end-user in the design process (e.g. engagement of students with autism, where appropriate and feasible); and (viii) appropriate use of technology (e.g. consideration of the virtual environment). Drawing these principles together, Scott – in alignment with the general differences framework – reminds us of the particular importance of this issue: 'Mainstream children are probably more "able to cope" with badly designed spaces than an autistic child would be. So the responsibility to create a "good" environment is brought into sharp relief' (2009, p. 41).

## School Leadership and Ethos

School leaders play a critical role in autism education. They act as a catalyst of change (Leithwood, Harris, & Hopkins, 2008) that ultimately helps to determine the shape of provision for affected students, while also setting the tone for the way in which learners with autism are viewed. However, the evidence base pertaining specifically to school leadership and autism is remarkably small, and so we must rely primarily on the broader literature on leadership and special educational needs (and by extension, diversity, and difference). Chapman, Ainscow, Miles, and West (2011) argue that a crucial factor is the way in which the experiences and outcomes of education for students with special educational needs is conceptualised – as a whole school issue *or* as the preserve of a small number of specialist staff. The culture and ethos of schools that promote higher levels of achievement for such learners is one in which their needs are 'everyone's business'. School leadership is central to this becoming a reality, from fostering a sense of common purpose to establishing trust and credibility by leading by example.

In one of the only examples of research examining school leaders' attitudes and values relating specifically to autism, Horrocks, White, and Roberts' (2008 – included in this volume) large-scale study of elementary school principals in Pennsylvania highlighted similar themes to those reported earlier for teachers. Hence, most viewed the inclusion of children with ASC (and other special educational needs) positively, and emphasised staff attitudes as being critical to making successful inclusion a reality. Similarly, professional experience working with children with an autism diagnosis was correlated with more positive attitudes. Finally, the nature and extent of difficulties in social

understanding were reported as a key factor that influenced recommendations for placement (i.e. school principals were less likely to endorse mainstream placement for students with more severe social difficulties). Our own research, which included both special education co-ordinators and school leaders, generally supports these findings (Humphrey & Symes, 2013).

## Summary

The extant literature on school, teacher, and support staff issues in autism education is somewhat less well developed than that which explores peer relationships (see previous volume), but it nonetheless provides useful insights that serve to highlight gaps in knowledge and provision, and signpost areas for development. Initial training and continuing professional development relating to ASC can be a foundation for effective practice. While it has undoubtedly improved in recent years, there is still much to be done, with many staff still inadequately prepared to meet the distinct needs of children with autism. Staff will and skill have also improved over time since the initial push towards inclusive education began two decades ago. However, core characteristics of autism continue to provide a challenge for many teachers and this may lead to a reliance on paraprofessionals. These support staff are, of course, a critical element of provision for students with autism, but the existing research suggests that the manner in which they are typically deployed may paradoxically serve to exacerbate exclusionary practices by distancing vulnerable learners from their teacher and peers. Effective school leadership that promotes a culture and ethos in which meeting the needs of children with autism is everyone's responsibility is therefore essential. Finally, careful consideration of the physical environment of the school and how it may facilitate or impede the learning and participation of those with ASC should be undertaken.

## Note

1. In England, the last decade has seen the advent of 'higher-level teaching assistants', who undertake a generic preparation course.

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