

Information Sheet: Autistic Spectrum Disorders

The information in this sheet is taken from a range of sources as referenced. The Special Education Support Service wishes to acknowledge that the report by the Inspectorate of the Department of Education and Science (DES) entitled *An Evaluation of Educational Provision for Children with Autistic Spectrum Disorders* (DES, 2006) and *The Report of the Task Force on Autism* (DES, 2001) have been used extensively in compiling this fact sheet.

'Autism is not me. Autism is just an information-processing problem that controls who I am'

Donna Williams, Author of *Nobody, Nowhere and Somebody Somewhere*

Jessica Kingsley: London 1998.

Autistic Spectrum Disorders

In accordance with the practice adopted by the Task Force on Autism (Department of Education and Science, 2001), the term Autistic Spectrum Disorders (ASDs) is used in this fact sheet to denote disorders exhibited by students with Autistic Disorder, students with Asperger's Syndrome (AS) and students with Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS). The *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, (ICD-10)* and the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision, (DSM-IV-TR)* are the two main classification systems used in making an initial diagnosis of ASDs (World Health Organisation, 1994; American Psychiatric Association, 2000). Both classification systems concur with Wing (1996) in adopting a view of autism as a spectrum of autistic conditions that are disorders of development and not psychoses.

Characteristics of Students with Autistic Spectrum Disorders and their Special Educational Needs

According to the Task Force on Autism, students with autistic spectrum disorders (ASDs) exhibit qualitative impairments in reciprocal social interaction and in patterns of communication, and demonstrate restricted, stereotyped and repetitive repertoires of interests and activities (Department of Education and Science, 2001). These characteristics correspond to the triad of social interaction, communication and imagination impairments identified by Wing and Gould in 1979. It has been suggested that an added dimension related to sensory perception might also be added to the triad (Autism Working Group, 2002a; Jones, 2002). The presence of these characteristics affects the manner in which students with ASDs interact with and understand the world.

Social impairments include an apparent unresponsiveness to other people, treating people or parts of people as inanimate objects, a lack of awareness of cultural norms or social perceptiveness, absence of empathy with the feelings of others, atypical use of eye-contact and an unawareness of the concept of 'shared attention' which leads to joint referencing (Baron-Cohen and Bolton, 1993). Social impairments affect relationships with others and impact significantly on the manner in which students with ASDs arrive at an understanding of themselves and the world around them (Jordan, 2005). Students with ASDs will therefore require direct teaching of social signals and conventions such as responding to their name as an attention-alerting signal, turn-taking skills, the timing and dynamics of social-interactions, the concept of sharing, the capacity to classify and respond to pertinent information and the modulating of levels of arousal (Jordan).

Communicative impairments are characterised by an absence of meaningful communicative intent, difficulties in interpreting verbal and non-verbal expressions and gestures, confusion with the semantic and pragmatic aspects of language, speech patterns characterised by echolalia, metaphorical language, neologisms and pronoun reversals (Baron-Cohen and Bolton, 1993; Jordan and Powell, 1995). Jordan (1996)

advises that students with ASDs need to be directly taught the purpose of communication and the variety of ways in which we communicate such as gestures, eye signalling, facial expression and body posture. The teaching of conversational skills related to turn-taking, active listening, topic introduction, maintenance and change should also form a central part of students' education programmes. The literal understanding of students with ASDs presents particular difficulties and a clear and unambiguous language of instruction is required in all learning and teaching contexts.

Students with ASDs exhibit rigid thought and behaviour patterns, which may lead to obsessional behaviours, repetitive interests and ritualistic play (Beyer and Gammeltoft, 2000). Sherratt and Peter ((2002) observe that students with ASDs seem to lack the urge to engage spontaneously in playful behaviour and describe the rigidity of thought and behaviour as the antithesis of creativity. An education programme for students with ASDs will need to include structured and purposeful opportunities to develop creativity and imagination in order to provide a holistic and individualised approach to learning and teaching (Sherratt and Peter).

Sensory and perceptual impairments can lead to an under or over sensitivity to noise, smell, taste, light, touch or movement, fine/gross motor difficulties, poor organisational skills and difficulties in managing the time and sequence of activities (Autism Working Group, 2002a; Jordan, 2001). Engaging in a risk assessment that systematically addresses the sensory and perceptual sensitivities of students with ASDs in relation to lighting, acoustical levels, heating and ventilation systems, classroom displays and colouring assists in creating a supportive learning environment for students with ASDs. The use of clear directional signs indicating specific areas of activity and the consistent use of visual timetables and work systems assists in pre-empting the anxiety students with ASDs experience with the abstract and temporal nature of time (Mesibov and Howley, 2003).

The atypical sleep and behaviour patterns experienced by some students with ASDs needs to be consistently assessed and monitored in order to establish their impact on students' learning and teaching programmes (Autism Working Group, 2002a).

Additional Special Educational Needs arising from General Learning

Disabilities

The behavioural and psychological characteristics associated with an assessment of ASDs results in students exhibiting a style of thinking and learning that is clearly distinct from that of students who do not have ASDs. Cumine, Leach and Stevenson (2000) observe that while students with ASDs have features in common, they each have diverse individual profiles that necessitates an individualised approach to meeting their needs.

The Report of the Special Education Review Committee (SERC Report) (Ireland, 1993) states that some 75% of children with ASDs are within the range of general learning disability in intelligence tests and Peeters (1997) observes that 60% of persons with ASDs register with an intelligent quotient (IQ) under 50. It is acknowledged however that due to the nature of ASDs, it is difficult to secure a valid cognitive assessment of an individual's particular level of cognitive functioning and research is ongoing to mitigate the difficulties experienced by individuals with ASDs with IQ testing (Department of Education and Science, 2001; Wolman, 2008). However it is clear from recent literature that the severity of ASDs and a general learning disability form two separate dimensions, which must be considered when planning programmes for students (Autism Working Group, 2002b; Jordan, 2001; Peeters, 1997).

The SERC Report outlines the special educational needs of students associated with an assessment of mild, moderate and severe to profound general learning disability (Ireland, 1993). To the extent that IQ may be used as an indicator of intelligence,

students with a mild general learning disability are described as having an IQ in the range of 50 to 70 on intelligence tests. Such students experience delayed conceptual development, slow speech and language development, limited ability to abstract and generalise, limited attention span and poor retention ability. A number of students may exhibit poor adaptive behaviour, inappropriate or immature personal behaviour, low self-esteem, emotional disturbance and poor fine and gross motor co-ordination.

Students with a moderate general learning disability are described as having an IQ in the range of 35 to 50 on intelligence tests. The special educational needs associated with a moderate general learning disability include impaired development and learning ability in acquiring skills in relation to language and communication, social and personal development, motor co-ordination, basic literacy and numeracy, mobility, leisure and aesthetic pursuits.

On intelligence tests, students with a severe general learning disability are described as having an IQ in the range of 20 to 35 and students with a profound general learning disability of having an IQ under 20. Students with a severe to profound general learning disability are likely to be severely impaired in their functioning in respect of a basic awareness and understanding of themselves and their environment. The promotion of these student's skills in relation to perceptual and cognitive development, language and communication, self-care, fine and gross motor abilities and social and personal development requires particular attention.

The National Council for Curriculum and Assessment (NCCA) has recently published a series of guidelines to assist schools in meeting the needs of students with mild, moderate and severe to profound general learning disabilities (National Council for Curriculum and Assessment (NCCA), 2007). These guidelines are designed to be used in association with the primary/post-primary school curriculum in order to promote curricular access through acknowledging and accommodating the special educational

needs arising from students' particular levels of general learning disability as outlined in the SERC Report.

All students with ASDs benefit from accessing a broad, balanced, varied and relevant curriculum that addresses the triad of impairments, accommodates the special educational needs of the student arising from a general learning disability or other co-occurring difficulty, attends to developmental and adaptive needs, addresses the management of behaviour that may interfere with learning, provides curricular experiences that are concerned with the holistic development of each student and uses a range of teaching methodologies and ASD-specific approaches.

A range of ASD-specific approaches has been developed to meet the learning and teaching needs of students with ASDs. The findings of the Report of the Task Force on Autism concluded that there was no definitive evidence that supported a particular intervention for all individuals with ASDs (Department of Education and Science (DES), 2001). A child-centred approach to meeting the learning and teaching needs of students with ASDs is advocated. A decision to use a particular approach should be based on an in-depth knowledge of the child, what one wishes to teach and what the child needs to learn. A range of ASD-specific approaches is provided in Table 1 below.

Table 1

Approaches commonly used with students with Autistic Spectrum Disorders (ASDs)	
<i>Interactive Approaches</i>	Emphasis is placed on assisting the student in developing relationships and engaging in reciprocal communication through structuring naturalistic and incidental learning and teaching contexts.
<i>Communicative</i>	Student's communication skills are specifically targeted,

Approaches

promoted and developed through the use of approaches such as the Picture Exchange Communication System (PECS), the Lámh manual signing system, and/or the use of real objects, symbols, pictures, photographs drawings and written words.

TEACCH

The Treatment and Education of Autistic and related Communication handicapped CHildren (TEACCH) approach is based on the rationale that students with ASDs progress better in structured rather than in unstructured environments and incorporates a physical organisation of the environment, visual schedules, work-systems and task organisation.

Social Stories

Social Stories are designed to enable the student to cope with social situations, which he/she finds difficult. They are visual, identify relevant cues, provide easily accessible accurate information for the student and describe expected behaviours. Role play and video may be used to enhance this process.

Inclusion

Inclusion is used as the learning medium and students are taught to directly participate in activities with their non-ASD peers. Buddy systems, circle of friends approaches and social stories are successfully used to promote this process. The importance of providing mainstream peers with accurate, age-appropriate, ASD-awareness information in inclusive settings is stressed.

Behavioural Approaches

Behavioural approaches originate from Skinner's work in the 1950s and focus on modifying and shaping the student's behaviour. The behavioural techniques of reinforcement, shaping, promoting and prompt-fading underpin the programme.

Information and Communication Technology (ICT)

Computers have features that distinctively appeal to students with ASDs. ICT may be used to support all areas of the curriculum and to meet student's needs associated with the

triad of impairments. Concealing the computer and incorporating the computer in the student's daily work schedule are effective strategies for controlling computer access.

Tips for Learning and Teaching

Impairments in Social Interaction

- Students with ASDs are literal thinkers.
- Students are confused by the rules that govern social behaviour.
- Students require direct teaching in social skills.
- It is necessary to structure opportunities for students to use social skills in different situations.
- Be aware of the difficulties for students inherent in less structured situations such as break, lunchtime, in the corridor and in transitions between lessons.
- Use stories to teach social communication/interaction
- Develop a buddy system with mainstream peers.
- Directly teach jokes, puns and metaphors.

Impairments in Language and Communication

- Students require support in understanding the purpose and value of communication.

- Attention needs to be directed to teaching the social aspects of language (e.g. turn taking, timing). Some turn taking activities may include board games, hitting a balloon back and forth, telephone conversations, bouncing a ball back and forth etc.
- Directly teach gestures, facial expression, emotions, vocal intonation and body language.
- Use visual material and/or signing to support and facilitate students' communicative initiations and responses.
- Provide precise instructions for students to follow.
- Always refer to the student by name as he/she may not realise that 'everyone' includes them.
- Do not expect eye contact and never turn the student's face towards you.
- Keep verbal instructions brief and simple.

Impairments in Imagination with a Restricted Range of Behaviours, Activities and Interests

- Students must be helped to cope with new and/or varying activities.
- Pre-empt the student's anxiety that results from being presented with unstructured or unfamiliar situations without prior warning/explanation.
- Devise and implement a structured play/leisure programme.

Additional Tips for Learning and Teaching

- Adjustments may need be made to the classroom to address the student's undersensitivity/oversensitivity to noise, smell, taste, light, touch or movement.

- Consider implementing structured and systematic programmes to develop the student's gross and/or fine motor skills.
- Elicit relevant information regarding the student's eating, drinking and sleeping irregularities.
- Structure the classroom environment to reduce distractions.
- Secure student's attention prior to issuing instructions/engaging in conversation.
- Provide structures that assist students in understanding the duration of tasks.
- Make the links between different tasks clear to students.
- Use computers to support the student's teaching and learning opportunities.
- Disapprove of inappropriate behaviour and not of the student.

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