

# SATELLITE CLASSES: A PROMISING MODEL FOR EDUCATING CHILDREN AND YOUNG PEOPLE ON THE AUTISM SPECTRUM

**Abigail Croydon, Anna Remington,  
Lorcan Kenny, and Liz Pellicano**

Centre for Research in Autism and Education (CRAE)  
UCL Institute of Education, University College London

[www.ucl.ac.uk/crae](http://www.ucl.ac.uk/crae)

# CONTENTS

3	Executive Summary
4	Preface
5	Abbreviations
5	Terminology
6	1. Setting the scene
10	2. What are satellite classes? The Phoenix model
14	3. The children and young people attending the Phoenix satellite classes
18	4. People's views and experiences of the Phoenix satellite classes
27	5. Conclusion
29	Notes
32	About us
32	Citation

# EXECUTIVE SUMMARY

Identifying the ‘right’ school for autistic children and young people is one of the biggest decisions that parents will face in their child’s education.

Parents want provision that focuses on the individual needs of their child, employs experienced educators that are knowledgeable about autism and has a highly structured, yet flexible learning environment. They also want a school with high ambitions for their child, strong role models and an inclusive environment that sets their child up well for the future.

The problem is that some of these characteristics might best be provided for in specialist provision and others in more mainstream school settings.

The lack of research to clarify which setting -- mainstream, specialist -- might work best for which particular child makes parents’ decisions all the more difficult.

In this study, we present the results of new research that examined an attempt to combine the best of both specialist and mainstream provision: a ‘satellite class’ model of supported inclusion in which the strengths of a special school education are kept in place for selected autistic pupils as they transfer to ‘satellite classes’ within mainstream settings (‘host schools’). This model was led by an outstanding specialist provider, Phoenix Special School, in collaboration with innovative and inclusive mainstream schools, Marners Primary School and Bow Secondary School, all within – and supported by – the London borough of Tower Hamlets.

The research sought to determine the perceived success of these satellite classes and the future viability of the satellite class model within Tower Hamlets from the perspectives of parents, teachers and, especially, the selected children and young people who had made the transition into mainstream.

**“THEY’RE MORE AWARE OF PEOPLE AROUND THEM AND THE WORLD AROUND THEM, AND WHAT LIFE IS GOING TO BE LIKE”**

Through this research, we discovered that:

- Overall, young people, their parents and their teachers gave strikingly positive accounts of their satellite placements and identified encouraging outcomes in terms of students’ learning, behaviour and social awareness.
- Children and young people were generally successful in accommodating the changes to their routines and the challenges of a mainstream environment with the support provided within this satellite model.
- Teachers, parents and children felt that there was a more work-focused atmosphere and fewer behavioural issues in the satellite classes compared with their previous special school classes, enabling children and young people to ‘raise their game’ in terms of their learning and their own behaviour.
- Some families and teachers felt that further steps could be taken to integrate satellite children and their families into the life of host schools.
- Families considered inclusion in the mainstream satellite classes as a positive outcome in itself, and some perceived a greater sense of social inclusion and acceptance for their children.
- The model also potentially provides benefits for non-autistic children and families in the broader school community as they become aware of and accepting towards difference and diversity in their society.

# PREFACE

This report was commissioned by Phoenix Primary and Secondary School, Marner Primary School, Bow Secondary School and Tower Hamlets Local Authority to assess the feasibility of a satellite class model for children and young people on the autism spectrum. The rationale was to increase the mainstream learning opportunities for autistic students currently attending Tower Hamlets' only autism-specific special school, Phoenix Primary and Secondary.

We are very grateful to Diana Warne (former Head of Secondary Learning and Achievement) and David Carroll (SEN/Inclusion Lead and Principal Educational Psychologist) from the London Borough of Tower Hamlets, Stewart Harris (Headteacher), Veronica Armson (Senior Deputy Headteacher) and Catherine McNerney (Assistant Headteacher) from Phoenix Primary and Secondary School, Mary Todd (then-Headteacher) from Marner Primary School, and Cath Smith (Headteacher) and John O'Shea (Deputy Headteacher) from Bow School for giving us the opportunity to work on such an important innovation in autism education. We also thank Althea Tempier and Janet Martin for help with data collection, Hannah White and Katy Warren for data entry, Marc Stears for his very careful reading of the report and constructive feedback, and Dan Sinclair for design and production of the report.

We are also indebted to all the children and young people, their parents, and the staff (teachers, teaching assistants and parent liaison officer) at all three schools, without which this project would not have been possible. They were all extremely generous with their time. We have done our very best to convey their experiences as accurately as possible. Any omissions or errors are entirely our own.



# ABBREVIATIONS & TERMINOLOGY

## ABBREVIATIONS

**ARB:** Autism Resource Base

**DfE:** Department for Education

**EHCP:** Education, Health and Care Plan

**Ofsted:** Office for Standards in Education,  
Children's Services and Skills

**PECS:** Picture Exchange Communication System

**SDQ:** Strengths and Difficulties Questionnaire

**SEN:** Special Educational Needs

**SEARS:** Social and Emotional Assets and  
Resilience Scales

**SEND:** Special Educational Needs and Disabilities

**SRS-2:** Social Responsiveness Scale – 2nd edition

**TA:** Teaching Assistant

**WASI-2:** Wechsler Abbreviated Scales of  
Intelligence – 2nd edition

## TERMINOLOGY

A child or young person is considered to have a Special Educational Need (SEN) “if they have a learning difficulty or disability which calls for special educational provision to be made for him or her” [1]. In the revised SEND Code of Practice, children’s SEN are included within four broad areas of need and support: (i) communication and interaction, (ii) cognition and learning, (iii) social, emotional and mental health, (iv) sensory and/or physical needs.

Many children and young people with SEN including autism, may also have a disability as defined under the Equality Act 2010 as “a physical or mental impairment which has a long-term and substantial adverse effect on their ability to carry out normal day-to-day activities”. Special schools provide education for children and young people with complex learning needs that are unable to be fully met within a mainstream school setting. To attend a special school, a child must have a statement of SEN, or more recently an Education, Health and Care Plan (EHCP), a legal document that details the child’s needs and services that the local authority has a duty to provide.

In the autistic community, disability-first language (e.g., “autistic person”) is often preferred to person-first language (e.g., “person with autism”) [2,3]. In this report, we use both person-first and disability-first language to respect the wishes of all individuals on the autism spectrum.

# 1. SETTING THE SCENE

School can be particularly challenging for children and young people on the autism spectrum. Many autistic students struggle with communication, have additional challenges with their learning and behaviour and are at an increased risk of developing mental health problems. Identifying the ‘right’ learning environments for these students – where they feel calm, safe, secure, enjoy positive relationships with others and receive the most effective support, adapted to their individual needs – is critical to promoting their life chances and opportunities.

In line with international efforts to promote inclusive education [4], current legislation in England places a duty on local authorities to ensure that a child or young person with a special educational need or disability (SEND), including autism, is educated within a mainstream setting [5]. The often-significant learning and behavioural needs of autistic children and young people, however, can seem to make it particularly challenging to include these children effectively within regular, mainstream schools and to obtain appropriate educational provision compared with children with other SEN [6,7]. Consequently, the UK government recommended that local authorities should ensure that every child on the autism spectrum “must have local access to a diverse range of mainstream and specialist educational provision” [6, p. 62]. This can include a range of provision (see Box 1).

Legislation since the 1990s [18] has meant that parents are legally entitled to state their preferred placement on school choice applications, including access to specialist provision for their children – a preference that local education authorities have a duty to consider [5]. This policy context has meant that a substantial minority of autistic children and young people in England (30%; [19]) are currently educated within specialist provision.

Yet, deciding on the ‘best’ placement for a particular autistic child or young person is no straightforward task (see Box 2). All schools vary widely in quality

## AVAILABLE PROVISION FOR CHILDREN ON THE AUTISM SPECTRUM

- Mainstream schooling without support
- Mainstream schooling with individualised (1:1) support
- Resource bases (or ‘units’) specialising in autism or related conditions attached to mainstream schools
- Special schools specifically for children and young people on the autism spectrum
- Special schools for children with a range of SEND, including for those with intellectual difficulties or social, emotional and mental health difficulties;
- Residential special schools that offer boarding, ranging from part-time (1-2 nights per week) to full-time (up to 52 weeks) care for children and young people with SEND, whose needs cannot be met in day provision due either to the significance of the child’s needs or to the extent of the adjustments that needs to be made to the school environment
- Independent (either profit or not-for-profit), non-maintained (run as not-for-profit, usually by a charitable body) schools or academies (independent schools where the contract is between the proprietor and the Secretary of State), whose places are funded by the local authority if no other appropriate options are available or, in some cases, paid for privately
- Home schooling, which parents might pursue if they want to follow a home-based programme, if they do not feel that their child’s needs are being met in existing provision or if their child has been permanently excluded.

BOX 1

## AUTISM

Autism is a lifelong neurodevelopmental condition that affects the way a person interacts with others and experiences the world around them. One in every 100 UK children and adults lie on the autism spectrum [8,9]. According to current diagnostic criteria, autistic people show a set of core features, including difficulties in social communication, rigid and repetitive ways of thinking and behaving and unusual reactions to sensory input [10]. These features vary widely from person to person. Approximately 30% of autistic individuals have an additional intellectual disability, which can vary in degree, and some may not use spoken language to communicate. Whether these features are considered disabling for an individual can depend in part on the extent and nature of support provided by others. This support can include both helping the individual child/young person to develop skills and strategies (for example, to understand situations and communicate their needs) and adapting the environment to enable the child to function and learn within it.

Consequently, going to school can be particularly challenging for children and young people on the autism spectrum. For example, communication difficulties can result in problems understanding task instructions [11], and problems understanding the social



complexities of school life can be isolating and make children and young people more vulnerable to social manipulation and bullying [12]. Differences in the way that sensory information is processed (e.g. an aversion to loud noises) can also make managing aspects of the school environment stressful, which, in the absence of appropriate support and adjustments, can have a negative impact on learning and behaviour [13]. In addition, many autistic children also experience additional mental health problems, especially anxiety and attentional difficulties [14], and may show behaviour that challenges.

Those with additional intellectual difficulties may have distinct needs and vulnerabilities – different both from those young autistic people without additional intellectual difficulties and those with intellectual difficulties but without autism [15]. Little is known about what might make inclusion in a mainstream setting successful for this particular group of young people (but see [16, 17]).

BOX 2



and expertise in educating pupils on the autism spectrum and careful assessment of both the child and the school is needed in order to maximise the chances of a successful placement. Which type of placement best meets the needs of a child on the autism spectrum will depend on his or her individual skills and difficulties, the advice and support parents receive from professionals during the decision-making process [7,20] and on the provision available in their local authority, which can vary widely [21].

It will also hinge on the family's situation and preferences. Parents often report wanting a nurturing, flexible and inclusive school environment, with high educational aspirations [22], emphasising both academic and life skills, and whose staff have some understanding of autism. For many parents, such a school is a mainstream school, which allows their child "to be integrated with the rest of society, and not to be excluded" ([20] p. 8; see also [23,24]). Parents and educators also underscore the importance of having typical role models, which is thought to foster autistic children's social development and social relationships [25], and autistic children also report the importance of having friends and being accepted by their peers [20,26,27].

Nevertheless, many parents also report having little confidence in the extent to which their autistic children can be included effectively within mainstream settings [28]. They worry about large child-to-teacher ratios [20,29], bullying and rejection of their child by their non-autistic peers [24], noisy and chaotic classrooms, corridors, playgrounds and dining rooms ([30, 31], and especially a lack of access to autism-specific knowledge, expertise

and support [32,33]. They are also concerned about mainstream schools not being able to address what some have referred to as the 'hidden curriculum' [34] – those social and more general life skills, such as self-care, self-regulation and speech and language skills, that are not taught directly but are nevertheless critical to the progress of autistic children and young people who may not acquire them in the usual ways. Some parents therefore opt for a specialist school placement for their child in the belief that access to high-level expertise on autism will ensure that staff will better cater for their child's individual needs – or because they had already tried a mainstream placement and felt that it had failed.

These school-placement decisions weigh heavily on parents [35], which are further compounded by the lack of evidence on which setting (mainstream, specialist) works best for which individual child (e.g., [36]). Indeed, testing the effectiveness of mainstream versus special school placement is made especially difficult by the fact that children and young people in special school placements differ from those in mainstream in often-systematic ways. They often (though not always) have additional intellectual disabilities, more limited spoken communication and a greater degree of autistic features. They also typically receive more specialist input from professionals (e.g., speech and language therapy, occupational therapy) than children placed in mainstream provision (e.g., [37]). Nevertheless, there is research that provides some indication that special schools may be better able to deliver successful educational outcomes for autistic children than mainstream placements (e.g., [37,38]).

Of course, these successes might not be related to the type of placement itself but, rather, to the type of support available in them. Special schools generally provide more structured teaching, with more emphasis on the hidden curriculum, especially developing adaptive self-care and communication skills, which make it more possible for autistic children and young people to manage life – inside and outside of school. The increased access they offer to additional and specialist support, such as speech and language therapy and occupational therapy, may also be a factor in autistic children's successful outcomes [39].

Maintaining special school practices – structured specialist teaching, the hidden curriculum – in a mainstream environment might therefore offer the most advantages for these children, while at the same time aligning with what many parents appear to want for their children, to be educated within an inclusive, mainstream school.

### **About this study**

The current study focused on a model of mixed “satellite” provision recently established by a community special school in one local education authority, in partnership with two local mainstream schools (see Chapter 2). The schools are all located in one particular London local educational authority, Tower Hamlets, a borough with a recent record of outstanding educational achievement [40]. Together, these schools have piloted a distinctive model of autism education in which the strengths of a special school education are kept in place for selected autistic pupils as they transition in class groups (‘satellite classes’) to mainstream ‘host’ schools.

### **The current research sought to:**

1. Understand the characteristics of the children and young people selected to transition to the satellite classes
2. Examine the impact, if any, of transition to the satellite classes on the pupils involved, with a focus on their behaviour, social competence and social awareness
3. Understand the views and experiences of the children and young people attending the satellite classes – from the perspectives of their parents, their teachers and, importantly, themselves
4. Determine the perceived success of the classes and the future viability of the satellite class model.

The following three chapters describe the study and its findings in detail. Chapter 2 describes this particular satellite model of provision. Chapter 3 describes the characteristics of the young people selected to attend the satellite classes in the host mainstream schools and presents the results examining the impact of the transition to the satellite classes. Chapter 4 – which forms the bulk of this report – presents the findings for the third aim, reporting the views and experiences of the young people, their parents and their teachers on being educated within the satellite classes. The concluding chapter further summarises the findings and offers recommendations, highlighting key strategic messages.

## 2. WHAT ARE SATELLITE CLASSES?

### THE PHOENIX MODEL

#### The social context

Tower Hamlets is a distinctive borough on the edge of the City of London. It is relatively small but densely populated, and one of the poorest boroughs in the United Kingdom. In 2012, there were estimated to be 65,269 children and young people aged 0-19 years in the borough, about 26% of its total population. Child poverty rates show 60.5% of all children in Tower Hamlets were estimated to be living in poverty (i.e., in families with reported incomes less than 60% of median), with a high proportion of children – 57% – entitled to Free School Meals. Furthermore, specific ethnic minorities make up a significant proportion of the population. Indeed, 89% of the school-age population was classified as belonging to an ethnic group other than White British, compared to 26% in England overall. English is an additional language for 74% of its pupils. Of those children and young people, 55% come from the Bengali community, which itself has distinctive socio-economic needs [41].

Tower Hamlets' children and young people have an exceptional range of special educational needs, with 21% registered for some level of additional provision [40]. These statistics apply to the three schools involved in the satellite partnerships, such that the host schools have high levels of pupils with SEND in the mainstream intake, including some with a diagnosis of autism.

#### The school context

Within this authority, there is one autism-specific state-funded community special school, Phoenix Primary and Secondary School, which caters for both primary and secondary pupils on the autism spectrum. To attend Phoenix School, pupils must have received an independent clinical diagnosis of autism and either a statement of SEN or an Education, Health and Care Plan (EHCP), which specifies autism as their primary need. The majority of pupils are boys, are of Bangladeshi or Somali background and are from households in which English is not the home language. Most also have moderate-to-severe intellectual

difficulties and substantial speech, language and communication needs.

Phoenix School is classified as an 'outstanding' school; both the teaching quality and the achievement of pupils have been assessed as outstanding [42]. The school offers a range of sensory and therapeutic interventions and employs a multidisciplinary approach to pupil needs. Pupils are offered a curriculum that is individually tailored and delivered within an enabling environment.

There is no autism-specific unit-based provision co-located within mainstream primary or secondary schools within the borough. The mainstream schools, and the autistic children and young people within these settings (n>300), are therefore supported by an outreach service of specialist teachers, run by Phoenix School. The proposal to pilot satellite classes was prompted by a "rising roll" and a group of students who did not "need the full Phoenix offer" [Phoenix Headteacher] and was developed from the experience of other London special schools, especially Queensmill School in Hammersmith and Fulham, undertaking similar projects.



## KEY ELEMENTS OF THE PHOENIX SATELLITE CLASS PROGRAMME

- Selection is based on the ability to mix socially or benefit from the social mix within mainstream school
- Children and young people remain on roll at special school
- Children and young people are carefully prepared for transition to satellite classes
- Transitions are made in established peer groups to mainstream partner schools (host schools) [although this may change in future now that classes are established]
- Pupils are taught within dedicated classes in the host school ('satellite classes')
- Classes are staffed by special school teachers and teaching assistants who are already familiar with the transitioning children and young people
- Classes follow the curriculum of the special school: individualised, differentiated provision, with visiting subject specialist teachers
- Classes are arranged approximately by age, but not in strict year groups
- Pupils wear the uniform of the host school
- Pupils have opportunities to mix with mainstream pupils outside lesson times and for some specified activities
- Pupils maintain contact with the special school, returning regularly for a range of activities and after school clubs
- Parents liaise with the special school but attend parents' evenings at the host school.

### BOX 3

### Testing a distinctive model of autism education: Satellite classes

The concept of so-called satellite classes originated in Australia in the late 1990s, in response to evidence that intellectually able autistic children and young people experienced significant difficulty managing in regular, mainstream schools. For some children and young people, the country's largest autism service provider, Autism Spectrum Australia (Aspect), felt

that education provided by a specialist provider (the 'base' school) in a small, autism-specific class within a mainstream 'host' school could promote learning and enable them to transition to a less specialised educational placement. Satellite classes were thus conceived as stepping-stones to 'full inclusion' in mainstream schools, allowing them to 'catch' some of the more able children who fell through the cracks of service provision [43]. Within the Australian model, students attend such satellite classes until they show signs of 'transition readiness', when they are specially prepared for transition by increasing the time in regular, mainstream classes, gradually reducing the amount of adult and environmental support, and by developing greater independence, including self-care and communication skills [44]. Progression from the satellite class into a mainstream placement is seen as a measure of success of the satellite classes [44].

'Satellite units' are common also in New Zealand, where residential and day special schools (base schools) have arrangements with schools throughout the country to host satellite units (host schools). Funding and support is available through the Ministry of Education, which is responsible for all education in New Zealand. Just like in the Australian model, autistic children and young people receive specialist teaching from the base school, who provides the staff and operates the satellite unit. The students are made to feel part of the mainstream school, including by wearing the school uniform, and gain opportunities to integrate into a mainstream school. Unlike the Australian model, however, New Zealand autism satellite units often accommodate children of a wider range of ability and, in some cases, cater for children with a wide range of SEN, largely due to lengthy distances between home and school.

Together, these satellite class models have many features in common with the 'Autism Resource Base' (ARB) or unit-based provision, which is currently implemented in many local authorities around the UK. These are centres of autism-specific expertise located within a mainstream school, where autistic children and young people can learn separately from, and together with, mainstream peers, depending upon their needs and abilities and the policies and practices of the individual ARB. For many ARBs, their role is to facilitate inclusion for students on the autism



spectrum while receiving specialist support, with the expectation that students will attend mainstream classes for at least part of their school week. Both satellite classes and ARBs therefore provide programmes of autism-specific specialist support, with some level of inclusive mainstream experience. The inclusive attitudes of the host mainstream school's senior leadership team (especially the headteacher) have reported to be critical to the success of the satellite classes [43,44], just like with ARBs [22].

There are, however, some distinct differences between satellite classes and ARBs. Unlike students in ARBs, satellite class students are enrolled with the base (special) school, not the mainstream school. Similarly, satellite staff are employed by the special school, not the mainstream school. The base special school therefore retains responsibility for staff and students in the satellite class. In this way, satellite staff continue to receive support from their special school and, at the same time, are integrated within the host mainstream school and are advocates for their students and for autism more broadly. Satellite classes have also been developed in different forms in the UK, for example, in other boroughs in London and Northamptonshire, the

general principle of placing special school children and young people in supported places in mainstream schools has been followed, but the models differ somewhat in their implementation. The next section describes the model implemented within the London Borough of Tower Hamlets.

### **Satellite classes: The Phoenix model**

In 2014, Phoenix School identified a group of children and young people – across primary and secondary – who could potentially benefit from the learning opportunities within a mainstream setting. The School proposed to transition children with all the individualised supports of the special school – its specialist teaching, and adapted curriculum – into a mainstream setting. The Headteacher called for partnerships with local mainstream schools, seeking to find schools able to provide high quality accommodation, and which shared the inclusive ethos of Phoenix School. Two local schools, one primary and one secondary, volunteered to 'host' Phoenix satellite classes: Marner Primary School and Bow Secondary School.

Marner Primary School is a larger than average primary school, with over 600 pupils. Bow Secondary School is a smaller-than-average secondary school,

which occupied new buildings and accepted its first intake of girls in 2014. Both host schools share the borough's characteristically high proportion of children and young people with SEND, and also have significantly above average number of pupils eligible for the 'pupil premium', a payment made to publicly funded schools in England to help raise the attainment of disadvantaged pupils and close the gaps between them and their peers. Both host schools have been assessed as 'good' schools by Ofsted. The satellite project was supported by Tower Hamlets Local Authority and launched in 2014.

In 2014, staff identified 15 students at Phoenix School thought to be sufficiently able to cope with the potential challenges of a mainstream environment and to benefit from an educational curriculum that was closer to their abilities. These students transitioned from Phoenix Special School to Marnar Primary (n=8) and Bow Secondary (n=7) schools in the academic year 2014 – 2015. An additional group was identified as suitable candidates for transition the following academic year (2015 – 2016) to Marnar Primary (n=5) and Bow Secondary (n=6) schools. The distinctive form of satellite class proposed was shaped by Phoenix School's considerable expertise in accommodating the needs of its children and young people, particularly in terms of their behaviour

and need for sameness (see Box 3, p11). The model provides maximum continuity through the transition by transferring children and young people in groups of familiar peers (rather than on their own) alongside familiar teachers, to the host mainstream schools. Pupils were prepared carefully for transition to mainstream, using social stories and multiple visits to their new host schools. The model also allows considerable flexibility in support arrangements. The staff-to-pupil ratio – which is slightly lower than at the base school – can be adapted according to the needs of the individuals in the class.

On-going contact with the base special school keeps open the possibility of return to the special school, if needed, with minimal disruption, and maintains contact between satellite class children and young people and their peers remaining in special school. Satellite children and young people can be placed in selected mainstream classes – for example, to follow their strengths and interests – according to individual needs. Furthermore, satellite classes can accommodate mainstream pupils with additional needs enrolled at the host school on a flexible basis. Mainstream teachers therefore have access to the expertise of satellite teachers to inform their support of mainstream peers, some of whom may also have a diagnosis of autism.

## SUMMARY

- The satellite model of education involves placing a 'satellite' class in a host mainstream school for pupils enrolled at a nearby base special school. Students are supported and taught by teachers from the base school and follow its curriculum, but wear the uniform and identify as members of the host school.
- This report focuses on one example of this model, recently implemented by the local education authority in the London borough of Tower Hamlets, which houses a diverse ethnic population, with high levels of child poverty and SEND and where many families do not have English as a home language. The programme involves Phoenix Special School as the base school and two mainstream host schools with an inclusive ethos: Marnar Primary school and Bow Secondary school.
- Pupils are identified for transition based on both perceived ability to cope with the transition, and potential to benefit from the mainstream educational environment. So far, two cohorts of students have been selected to take part in the satellite programme: 15 in 2014-2015, and 11 in 2015-2016.
- Transition to the satellite classes was carefully managed with social stories and visits to the host-school before the move. Even after transition, pupils continue to visit the base school regularly, maintaining contact with peers, to enable a full-time return to the base school if necessary.

# 3. THE CHILDREN AND YOUNG PEOPLE ATTENDING THE PHOENIX SATELLITE CLASSES

In the Australian and New Zealand models, satellite classes were created to provide a bridge between early intervention or special school placements and more inclusive, mainstream settings. In the Australian model, the students who attend such satellite classes are typically young – in early years or in the first few years of primary school – and cognitively able, but nevertheless are thought to struggle with managing mainstream classes due to their difficulties with learning and/or social communication [44]. In the New Zealand model, the students who attend are often of a diverse range of needs, although they may be grouped according to ability.

In the Phoenix model, the primary aim is to promote the mainstream learning opportunities of selected satellite class students for those at Phoenix Special School, who are considered able to benefit from mainstream inclusion, rather than to promote full inclusion in mainstream classes, as in the Australian model.

The differences in aims imply that these satellite classes are serving a group of children and young people with distinct needs to those educated within the Australian model.

One first aim of this project therefore was to identify the broader characteristics of the children and young people selected to attend the satellite classes in Tower Hamlets host schools (Aim 1). The second aim was to examine the impact, if any, of transition to the satellite classes on the pupils involved, with a focus on their behaviour, social competence and social awareness (Aim 2).

## Participants

To begin to address these aims, we invited all children and young people who had transitioned to the satellite partnership schools in September 2014 and all of those who were selected for transition in September 2015 to participate in this study - there were 26

## WHAT WE KNEW ABOUT THE CHILDREN AND YOUNG PEOPLE AT THE START OF THE PROJECT

	Marnier Primary satellite class		Bow Secondary satellite class	
	Transitioning (n=5)	Transitioned (n=5)	Transitioning (n=6) <sup>a</sup>	Transitioned (n=5)
Age range (y;m)	8;4 – 9;5	9;1 – 12;7	12;1 – 17;8	14;10 – 16;3
Gender (male:female)	5:0	4:1	4:2	5:0
Ethnicity	4 Bangladeshi 1 Black African	3 Bangladeshi 1 Black African 1 White British	1 Bangladeshi 2 Black British 1 Asian 2 White British	3 Black British 1 Bangladeshi 1 White British
Number whose home language is English	None	3	4	3
Communication level	4 PECS <sup>b</sup> Phase VI & 1 verbal	4 PECS <sup>b</sup> Phase VI & 1 verbal	2 PECS <sup>b</sup> Phase VI 2 PECS Phase VI & verbal; 2 verbal	1 PECS <sup>b</sup> Phase VI; 4 verbal

### Notes

<sup>a</sup>One girl appears in two cohorts, as she transitioned from special school to Marnier Satellite then to Bow Satellite.

<sup>b</sup>The Picture Exchange Communication System (PECS) is an augmentative and alternative communication intervention package for individuals on the autism spectrum and related developmental conditions. In the final phase (Phase VI), young people learn to comment in response to questions like, 'What do you see?', 'What do you hear?'. They also learn to construct sentences starting with 'I see', 'I hear', 'I feel', 'It is a', etc.

TABLE 1

## MEASURES WE USED TO UNDERSTAND THE CHARACTERISTICS OF THE STUDENTS

To measure children and young people's **general cognitive ability**, we used the Wechsler Abbreviated Scales of Intelligence – 2nd edition (WASI-2). The WASI-2 is a short and reliable measure of ability, based on a person's verbal and non-verbal reasoning skills. Three young people were unable to complete the WASI-2; they were instead administered the British Picture Vocabulary Scales – 3rd edition (BPVS-3).

Students' current **autism severity** were measured using the Social Responsiveness Scale (SRS-2) [45]. The SRS-2 is a 65-item questionnaire, completed by parents, which examines a child's ability to engage in emotionally appropriate reciprocal social interactions in naturalistic settings. Parents are asked to rate their child's behaviour (e.g., "Has repetitive, odd behaviours such as hand flapping or rocking" and "Knows when he or she is too close to someone or is invading someone's space") on a scale ranging from 1 ("not true") to 4 ("almost always true").

Children and young people's **behavioural difficulties** were measured using the Strengths and Difficulties Questionnaire (SDQ). On this questionnaire, parents were asked to rate statements on their child's behaviour in five areas, including emotional symptoms (e.g., "Often has temper tantrums or hot tempers"), conduct problems (e.g., "Often lies or cheats"), hyperactivity/inattention (e.g., "Constantly fidgeting or squirming"), peer relationship problems (e.g., "Picked on or bullied by other children") and prosocial behaviour (e.g., "Kind to younger children"). Parents were asked to rate the extent to which certain behavioural tendencies were 'not true', 'somewhat true', or 'certainly true' of their children.

We asked teachers to complete the Social and Emotional Assets and Resilience Scales (SEARS) to gain their perception of the students' **social strengths and resilience**. The SEARS consist of a set of statements, including for example, "makes good

decisions" or "thinks before he/she acts" and teachers indicated the extent to which each statement was true for their student, whether each statement was true for their student, 'never', 'sometimes', 'often' or 'always' within the past 3 – 6 months.

Finally, we asked parents to complete the Kidscreen-27 [46], in order to report their perceptions of their children's **quality of life** in the past week, including with respect to their physical fitness (e.g., "Has your child felt fit and well?"), state of mind (e.g., "Has your child been in a good mood?"), relationships (e.g., "Has your child had fun with his/her friends") and independence (e.g., "Has your child had enough time for him/herself?"). Parents were asked to rate these statements on a scale ranging from 1 ("not at all"/ never) to 5 ("very often/extremely").

BOX 4

children in total. This study's procedures were granted ethical approval by the UCL Institute of Education's Research Ethics Committee.

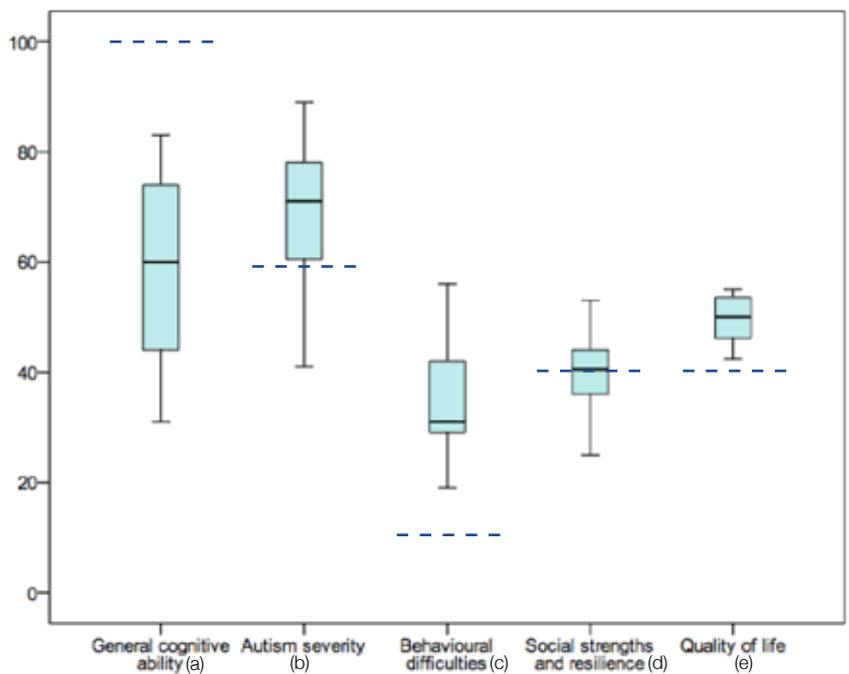
Of these 26 students, 10 parents from the transitioning cohort and 10 parents from the transitioned cohort gave written informed consent for their child's involvement (n=20 total) to take part in this study. Both cohorts were enrolled at Phoenix Special School, and all had received independent clinical diagnoses

of autism and had either a statement of SEN or an EHCP, which specified autism as their primary need. Table 1 gives the details of gender, age, and ethnicity of the children and young people in this study.

To address our aims, we saw children and young people at two time points, one year apart. For those who had already transitioned in the academic year 2014 – 2015, we saw them at the end of their first year in their satellite classes and again one year later.

Figure 1 shows box plots for each measure that captured children and young people's broader characteristics and level of need, including A) general cognitive ability as measured by the Wechsler Abbreviated Scales of Intelligence – 2nd edition (WASI-2), B) autism severity, as tapped by the Social Responsiveness Scale – 2nd edition (SRS-2), C) behaviour as indexed by scores on the Strengths and Difficulties Questionnaire (SDQ), D) social strengths and resilience as measured by the Social and Emotional Assets and Resilience Scales (SEARS), and E) perceived quality of life, as indexed by the Kidscreen-27.

For each plot, the solid black lines bisecting each 'box' represent the median (the 'middle') score. The boxes (rectangles) show the middle 50% of scores, and the 'whiskers' attached to both ends of these boxes extend out to



include all of the data (including the highest and the lowest scores).

The dotted black line provides benchmark indicators for each measure. A) shows at least average general cognitive ability (score of 100 and above), B) shows the cut-off score for 'typical' reciprocal social behaviour (scores of 59 and

below), C) shows the cut-off score for 'typical behaviour' (scores of 14 or higher are considered typical), D) shows the cut-off for typical social and emotional functioning (scores of 40 or below indicate risk of social and emotional difficulties) and E) shows the cut-off for being at risk of poor health-related quality of life (scores of 40 or below).

FIGURE 1

For those who were transitioning in the academic year 2015 – 2016, we visited them in their final term at Phoenix Special School and again at the end of their first year in their new satellite mainstream classes.

### Characteristics of the students in the satellite classes

To address Aim 1, we assessed students' general cognitive ability, their behaviour, their social strengths and resilience and quality of life at the beginning of the project. Young people, their parents and school staff were asked to complete standardised measures related to children and young people's autistic features, their perceived health and well-being, emotions, concentration and behaviour and socio-emotional competence (see Box 4, p15).

Children and young people's scores on the various measures can be seen in Figure 1. Note that, given the small numbers, we have combined the transitioning and transitioned groups. In general, students' cognitive ability varied widely, ranging from some students showing mild intellectual difficulties and others, more severe intellectual difficulties (Figure 1A). They showed mild to severe autistic symptoms (Figure 1B) and, for the most part, also showed clinically-significant behavioural and attentional difficulties, especially in relation to self-regulation, attention and peer relationships (Figure 1C). Most are considered to be at risk of poor social and emotional functioning (Figure 1D), although parents reported that their children generally had good quality of life (Figure 1E).

## **Students in satellite classes show stable profiles**

Our second aim was to examine potential changes, if any, in the students' characteristics over the 1-year period. After one year, we invited parents, teachers and, where possible, children and young people to repeat some of the measures described above and we compared the scores across the two time points.

For the transitioning cohort, we did not find any significant differences between their scores when measured just before they joined the satellite classes and after having been there for one year. For the

transitioned cohort, their behaviour and quality of life also did not change over the course of the year, at least according to the reports we received from parents, teachers and – where possible - young people themselves. But there were significant gains in their social strengths and resilience, with teachers reporting better self-regulation, responsibility, and social and emotional competence. Evidence of such gains is encouraging and, although it may reflect greater social strengths and resilience developing as a result of being in the satellite class, we must be cautious given that such gains could equally be due to general developmental growth in these areas.

### **SUMMARY**

- Overall, the autistic children and young people selected to attend the Tower Hamlets satellite classes had additional intellectual difficulties, ranging from mild to severe, and varying degrees of speech, language and communication needs, ranging from verbally fluent to those with limited phrase speech. They also showed behavioural and attentional difficulties and were at risk of poor social and emotional functioning but nevertheless have good quality of life, at least as reported by children and young people themselves and their parents.
- This profile of strengths and difficulties is suggestive of significant need and appears to be different from those reported to attend the Australian satellite classes, who had greater intellectual ability.
- For the most part, these profiles remained relatively stable across the transition to the satellite classes but, importantly, there was no marked escalation of difficulties. In light of what we know about young autistic people's difficulties flexibly adjusting to change, the absence of any adverse effects on children's behaviours, at least according to these measures, is encouraging.

# 4. PEOPLE'S VIEWS AND EXPERIENCES OF THE PHOENIX SATELLITE CLASSES

One of the main aims of this study was to understand the views and experiences of the children and young people attending the satellite classes – from the perspectives of their parents, their teachers and, importantly, themselves. We therefore spoke to young people, their parents and carers and satellite school staff – twice within the space of one year – about their perceptions of their school (see Box 5).

Overall, young people, their parents and their teachers gave strikingly positive evaluations of satellite

placements with very few – or fleeting – reservations: “I’m just amazed at how much he’s progressed” (parent); “He’s very happy. He enjoys going to school. I’m really, really pleased” (parent). All young people also explicitly reported preferring their satellite placements even where they missed aspects of the special school.

The one exception to this pattern was one cognitively able young man whose transition to the secondary satellite class was unsuccessful, resulting in him swiftly leaving the class (see below for discussion).

## OUR METHODS

Each student was seen on both occasions by a single researcher. For young people who were transitioning to the satellite classes, they were seen once at their base special school and again one year later at their new host school. For young people who had already transitioned, we saw them twice within the space of one year in the satellite classes.

We asked young people about what they liked and disliked about school, their friendships with peers and relationships with their teachers, and the things they liked to do inside and outside of school. Where possible, we also asked them to think about how being in the satellite classes compared to their previous special school.

During the sessions, child consent was viewed as a “continuous

process” [47]. Each child was therefore asked on multiple occasions if they were happy to work with the researcher. Pupils were offered visual supports to focus attention on the topics, such as a photograph of the school buildings or lunch hall, and as appropriate, a choice of picture symbols to answer questions (e.g., ‘yes/I’m happy’ (happy face); ‘no/it’s a problem’ (unhappy face) or ‘neutral’ (‘OK’ hand gesture)). Cards showing symbols for emotions were also made available to support explanations for initial answers, including such emotions as ‘lonely’, ‘scared’ and ‘fun’.

In order to preserve anonymity of the young people involved, all students are referred to as male and all quotations are left unattributed.

We also adopted a multi-informant approach, interviewing children’s parents and carers, and their teachers to gain a fuller picture of young people’s school lives. At both time-points, we spoke to 19 family members (17 mothers, one older brother and one grandmother) and three satellite teachers. We also spoke to the Headteacher of Phoenix Special School and a specialist teaching assistant at the second time point. Parents spoke to us in depth about their child or student’s developmental and schooling history, their perceptions of their child or student’s wellbeing in their current schools, and their hopes and aspirations for their futures. These interviews provided important context for the young people’s views and perspectives about their school placement.

BOX 5

The next sections report the themes we identified from our discussions with children and young people, parents and teachers about their schooling prior to their transition to the satellite classes and how they are getting on following the transition.

### **Difficult school histories**

Many parents reported that their children had started their schooling career in mainstream school. And many also described how their child's first placement in mainstream – prior to Phoenix Special School – had failed. These failures even included unsatisfactory placements in SEN units. A mother contrasted her child's anxiety in his initial mainstream placement with his later placement in special school: "Before when I bring him in the normal school he very scared. He doesn't want to come in, because it's normal children. But now in Phoenix it make him confident, make him happy".

Another mother saw real distress in her son's behaviour in his first mainstream placement: "when he was at the mainstream school and he couldn't speak sometimes he would bang his head, bang it on the wall, on the ground and scratch the other children, even me, he would scratch me, because he couldn't express himself".

Many parents felt that their children did not make progress until they had left the initial mainstream placement and began to attend special school. The mother of one 8-year-old boy said, "all this one year [he] was in [mainstream primary], he didn't improve one inch. As soon as he step out, he started improving little by little". Another mother simply stated: "Phoenix started it all. If he had been in mainstream – because he spent a year in there when he was five – he wouldn't be where he is now".

**"WHAT WON ME OVER WAS  
THE STAFFING. I THINK  
THE SERVICE WAS JUST  
IMMACULATE. IT'S OFF  
THE CHART"**

**PARENT**

The failure of mainstream schools to make adjustments for autistic pupils' resistance to change and sensory sensitivities were frequently cited as reasons for the breakdown in these placements. One mother described how these two factors had made transition from mainstream primary to mainstream secondary impossible for her son. Since starting school, he had been supported on a one-to-one basis by a single teaching assistant (TA), whom he then lost:

*"He had one-to-one all the time, a TA, from Reception to Year 6. And when it came to secondary school that's when we were having big problems. He said, I'm not going to big school, and he was finding it really, really upsetting. I just thought, I don't think he's going to cope. Even in the primary school, sometimes in the classroom the noise would be too much. So in the end a lot of his lessons were outside the class; he just couldn't cope with it".*

In the case of the one young person whose transition placement had abruptly ceased, his mother felt that his traumatic transition to mainstream secondary school earlier in his school career was a key factor influencing the breakdown of the satellite placement: "he knew what happened [before] and he was very concerned. All his old feelings were coming back".

In the light of these difficult school histories, parents described how relieved they felt for their child to be placed in Phoenix Special School: "they know how autistic children work. I just love the people working there, because I think they understand". Another mother described her initial visit to the special school: "I think what won me over was the staffing. I think the service was just, to this day, so immaculate. It's off the chart. And I think that's what eased me."

Parents also spoke of how much they appreciated the close working relationships with the special school, particularly in relation to the hidden curriculum, such as self-care and making gains with spoken language: "It took a long time to learn speech but he did it [at special school]. Also toileting – he learnt that there. We did it together really – at home and at school. And he learnt – that was amazing, it was a big breakthrough really". In fact, parents' trust in the special school's expertise also reportedly influenced

**“I WOULDN’T CHANGE A  
THING ABOUT SCHOOL”**

**YOUNG PERSON**

their decisions regarding the transition to the satellite classes. Many reported that they were able to set aside initial reservations about how their child would manage in a mainstream environment because they trusted school staff and their recommendations.

Young people’s reports of their special school placement were also positive. One primary-age boy described how he “wouldn’t change a thing about [his special] school”. Young people did report minor dislikes including individual peers and least favourite foods, but, in general, were enthusiastic about school activities, facilities and teachers. For example, an older boy said he would miss it “a tiny bit, because I used to love going there, like the activities we done, like canoeing, my favourite sport, archery, cycling, walking”.

**The transition period: continuity and change**

During the pre-transition interviews, young people who had yet to transfer to their new satellite class reported positive anticipation of doing so. These sentiments were reflected in the way that the interviews progressed, with many wanting to focus their interview discussions on their new mainstream school, rather than on the current school. Children with single word level speech also displayed enthusiasm, for example, by joyously repeating the new school’s name over and over again.

Young people were also very focused on the practical implications of transitioning to their new schools. They talked, for example, about the larger physical spaces available at mainstream (“there’s, like, outside. They have a big garden next to, like, the sports pitch”), the new school uniforms, and travel and lunch arrangements. One parent reported her son’s excitement, “he said, ‘mummy, mummy, look at my ID card’. And he’s really, really proud”.

Parents focused on these practical changes, too, but also discussed the implications of the new

experiences for their children’s independence. Several welcomed the new freedom to move round the school buildings freely (“[before] if he wanted to go from one room to another he needed a fob, for which he had to ask his teacher. But now he’s got the freedom to move around”), and new arrangements for getting lunch using a prepaid card scheme (“It’s good because it’s actually using money as well, which I want him to do”). Some parents focused on the psychological implications for their children of these changes: “when I put on that uniform on his first day of school, you could literally see a shift. He was so proud, he was so excited; he felt like, ‘oh my, I’m a big boy now’”. In many cases, adapting to the new challenges in mainstream school involved small but meaningful steps towards greater independence.

There were very few reports of elevated anxiety by children and young people during their pre-transition interviews – in spite of the fact that autistic children and young people often find transitions very difficult. According to parents and teachers, the relative absence of anxiety appears to be due to main reasons. First, base special school staff made extensive efforts to prepare the young people for their impending transition, using social stories and multiple visits to the destination mainstream school. Second, structural continuities are built into the satellite model, including the transfer not only of young people but also familiar teacher/teaching assistants and members of their pre-existing class group. One mother reported that her son had refused to make the transition, until he realised that, in fact, it offered continuity: “he just said, ‘I’m not going there’. But then I told him his friend’s going. And his teacher. That’s when he said yes”.

**“WHEN I PUT ON THAT  
UNIFORM ON HIS FIRST  
DAY OF SCHOOL, YOU  
COULD LITERALLY SEE A  
SHIFT. HE WAS SO PROUD,  
HE WAS SO EXCITED”**

**PARENT**

Not all aspects of the transition were completely smooth, however. A minority of parents felt that their children showed some resistance to the transition. One secondary-aged boy experienced a resurgence of a toileting phobia, which meant that he was initially unable to use the satellite mainstream toilets. Another primary school-age boy, who found playground crowds overwhelming, began to hit other children, “so they have started bringing him in early”. Teachers also reported that their students needed to adjust to the mainstream environment (“It’s very loud. It’s the noise and also the acoustics they find very difficult, they find the lunch hall difficult, they find this classroom a bit difficult sometimes, they find the corridor outside quite difficult”). Overall, however, children and young people met the challenges of transition well: “He is getting a bit used to the size of the school and the noise and crowds. He didn’t like it but he has got better”.

### **After transition – what is different?**

In their interviews after one and, for some, two years in the satellite classes, children and young people universally reported that they preferred their new school to their previous special school. Such endorsement was remarkable given the extent to which they reporting liking their previous special school. Students conceptualised the change as a form of progress, it is “more grown up”. Some students showed awareness of moving towards more typical school experience – one student preferred mainstream primary because “more people can talk here” and a cognitively able boy noticed, “I fit much better in this school”.

### **A “step up” in learning**

We asked children and young people, parents and

**“THE TIMETABLE CONTAINS LESS OF THE SENSORY AND PLAY TIMETABLE AND MORE OF A MAINSTREAM HARD-WORK TIMETABLE. SO THEY ARE WORKING A LOT MORE OF THE TIME”**

**PARENT**

**“IT WAS TIME FOR ME TO LEARN SOME HARDER THINGS”**

**YOUNG PERSON**

teachers to reflect on what changed in their everyday experience of school once they were settled in the satellite class. One issue raised was the “step up” in learning that resulted from setting new learning parameters for the satellite group: “it was time for me to learn some harder things” [young person].

In the satellite model, teachers make the transition together with their pupils, giving them special insight into the impact of transition. The teachers reported better progress than anticipated, “I was surprised, at that age they tend to plateau and don’t skyrocket with progress. So when I went through and marked off certain things I was like, oh my gosh, that’s great”. Teachers attributed these gains in learning to three changes.

First, teachers reported that students spent more time on classroom learning because there were fewer breaks between activities, fewer disruptions due to peers’ challenging and disruptive behaviour and less time spent on non-lesson activities. One primary-school teacher reported, “the timetable contains less of the sensory and play timetable and more of a mainstream hard-work timetable. So they are working a lot more of the time”.

Second, the selection of students for transition to the satellite class – from amongst a broad range of abilities in the base special school – allowed teachers to provide more challenging and more targeted teaching: “they’re all at a similar level compared to Phoenix. It’s easier to teach them. Because we have a lack of challenging behaviours and enough staff, we have a lot more time to be able to put in any interventions that we need to”. Third, teachers felt that the higher expectations for learning and behaviour in a mainstream setting played a role in promoting students’ learning: “just setting the bar higher makes a big difference. They know it’s a lesson and they do a lesson and then they’ll do the next lesson. Because that’s what happens at this school”. Some pupils, too, were aware of an increased

focus on academic learning in their new schools, reporting that work was harder or “scary” after transition. One young person noticed that at the previous special school, “they would, like, usually tell me the answer” whereas now “they will just, like, give me clues”. One teacher suspected that the first year following transition to satellite class entailed a “huge jump” in learning, but that the second year of mainstream

**“THEY’RE MORE AWARE  
OF PEOPLE AROUND THEM  
AND THE WORLD AROUND  
THEM, AND WHAT LIFE IS  
GOING TO BE LIKE”  
PARENT**

would follow a more typical pattern: “the pupils that I had last year have continued to make steady progress, suggesting that it was coming here that made them jump up quickly and now they’re learning at the normal rate that you would expect”.

#### **“Their behaviour has completely changed”**

Regulation of behaviour can be a challenge for many of children and young people on the autism spectrum. Families reported that, at times, their children displayed behaviour that challenges, which in some cases included episodes of anger and incidents of physical violence. In light of these often-ongoing issues with behaviour, some teachers nevertheless reported quite dramatic improvements in self-regulation following transition to the satellite class, with one teacher stating: “I’m really, really happy. Some of the students, their behaviour has completely changed”.

Parents and teachers explained young people’s improved ability to regulate their behaviour in terms of both the presence of typical role models and ‘mainstream’ expectations of behaviour and the absence of negative role models. One teacher reported that one particular young person’s behaviour had become less challenging since having been in the satellite class: “It was as if they were looking around the room thinking, wait a second; no one else is behaving like that”. In another example, one teacher

said about his student, “his behaviour’s improved because he doesn’t have negative behaviour modelled to him all the time”. Another teacher reported a striking change in her students’ ability to regulate their behaviour for long periods in assemblies, which she felt was due to the influence of mainstream models and expectations: “If a satellite pupil were to shout out, a teacher wouldn’t tell them off, but the kids would notice. So there are higher expectations from peers, which is quite effective”.

Similar to teachers, parents repeatedly contrasted the negative behavioural models they felt were present in special school with the typical role models and expectations in the new school. Parents were reluctant to stigmatise other children but referred on many occasions to other children’s behaviour in special school: “But sometimes he would come home and he would copy the [other children’s] actions, their behaviours, the movements of the children, their screams”. Another parent explained how a teacher had said, “it would be better” for her child “not to see [other children’s] behaviours and not to copy them”. They were very aware of how peers’ behaviours had affected their children in the special school context, for example in assembly: “Everyone’s kicking off, you know. One’s standing, someone’s punching, someone’s yelling; then it’s like a chain reaction. Kids who are calm are, like, we might as well start”. In fact, the apparent lack of these negative role models was seen as one of the primary advantages of the transition: “You’re not with a large group of special needs kids, now you’re exposed to mainstream. And I think that’s worked. We do learn from one another”.

From the point of view of the children and young people, the sometimes-challenging and disruptive behaviour by peers in the special school had been a significant burden. Many young people noted the lower levels of noise and disruption in satellite classes compared with the special school. One pupil used the word “calm” repeatedly to characterise what was better about his new placement. Another boy expressed his difficulty with peers’ often-challenging behaviour, saying that other children at the special school have “autism and they have anger, everyone has upset feelings. It’s autism, and if they’re having a bad days, they’re furious and livid”.

### “More people can talk here”

Making and keeping friends are an important part of any child’s life and difficulties with doing so – as is the case with many children and young people on the autism spectrum [10] – can play a significant role in their overall experience of school [24,48,49]. Prior to transition, children and young people reported break-time activities in their previous special school that were solitary or involved simple interactions such as chasing games. One primary school-age boy, when asked about what happens at lunch and break time, was emphatic:

**[researcher]** *Do you talk to people?*

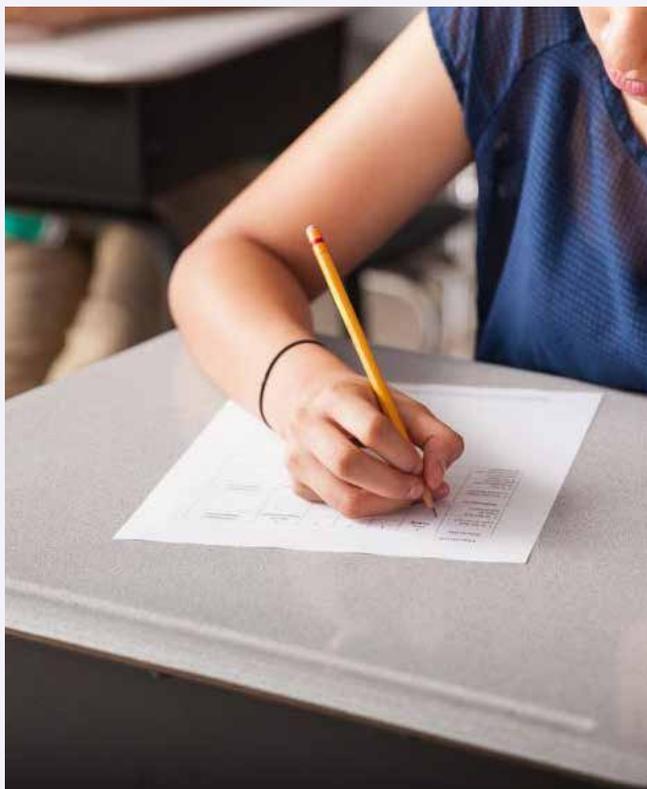
**[child]** *No way.*

**[researcher]** *Do you play with people?*

**[child]** *No way.*

Most primary pupils were unable to distinguish specific friends from amongst their group of classmates in their special school. One young person simply wrote, “I don’t have friends” beside questions about friendships. Others, including young people as well as parents, had difficulty with questionnaire items asking about typical features of friendships, such as relying on friends, and simply omitted them.

Following transition to satellite class, 17 of the 19 students named only satellite classmates as friends



and companions. Teachers reported some friendly relations (“high fiving in the corridor”) and some shared games in the primary satellite class, but very few

### “THE WAY HE INTERACTS WITH PEOPLE HAS CHANGED, I THINK” PARENT

closer connections. Most young people mixed with mainstream peers mainly in structured environments (for example, in lunchtime clubs). As one teacher said, “left to their own devices at lunchtime, they’re not just going to stroll up to somebody and start talking”. Of the mainstream peers we spoke to, many - but not all - reported being open to greater contact with the students in the satellite classes (see Box 6). Although teachers referred in passing to minor incidents in the playground, the satellite class students themselves did not report incidents of bullying or social exclusion. They generally reported being satisfied with their existing friendships and said they did not want more friends (“I’ve got plenty”).

Nevertheless, the mainstream environment provided increased opportunities to observe and participate in social interactions, and parents consistently reported positive changes in their children’s social behaviour as a result of transitioning. One parent said, “The way he interacts with people, yeah, has changed I think. Because now he knows how to be friendly. When he gets on the bus in the morning he says, ‘good morning, hello’, you know. When he’s getting off the bus he says, ‘bye, see you tomorrow’. Before he was just quiet, but now it’s just changed. And when he sees someone he knows he will say hello. Before he never did”. Other parents made similar observations: “I think he’s talking, he is, more, he goes with people. When someone’s coming he just goes and sits down with them. He wanted to little bit play with them. I think it’s better”.

For some children and young people, parents’ perceptions of their child’s increase in social motivation and pro-social behaviour extended to a greater interest in the world around them: “[I’m] just seeing him take more of an interest I suppose in what others are doing. I don’t know whether it’s had a massive

influence, but I think more of an interest in the world I suppose, an interest in other things.” One teacher also noticed changes in their social awareness: “They’re more aware of people around them and the world around them, and what life is going to be like”.

Parents and teachers were also aware that relationships with classmates were being played out in a different context, with different expectations, in the mainstream setting. One teacher noticed that his students were sharing and playing games amongst themselves more than they had at special school, where generally “everybody would be doing their own thing and there was very little to no games going on”. Instead, they were picking up “the general atmosphere of being more grown-up, the level of independence which they see other students and the expectation of what their behaviour is”. One parent noted that her son had made friends with children in his class in satellite for the first time, “because they are actually more on the same level with him, whereas [before] it was a mixture of children, maybe verbal, non-verbal, maybe some behaviour problems”.

Overall, although young people did not report having friendships or spending unstructured time with mainstream peers, they were not dissatisfied with their friendships. Nevertheless, parents and teachers felt that the change in environment – from special to mainstream school – had had a positive impact on children’s social awareness, motivation and skills. These benefits also may have extended to the students left behind (see Box 7, p25).

### **“You’re kind of floating in between”: Role of the host school**

Students identified strongly with their host mainstream schools. They reported feeling proud, for example, to wear the uniform and felt that they had graduated to a more “grown up” level of education. Parents felt, however, that they were not receiving the same sort of communication from the mainstream school as they had done with the special school. Some did not receive newsletters, for example, or notification of school events: “I’d like to know for example if they have a dressing up day – all going in red or whatever. I can talk to the teacher but I don’t get anything from the school. I think I should – if he’s a part of it, we should get that information”. Although they appreciated the

## **KNOWING THE STUDENTS IN THE SATELLITE CLASSES**

So far, the focus has been on the perceived benefits for the children and young people transitioning to the satellite mainstream schools. But what about the potential impact on the non-autistic mainstream peers? We looked at this issue with 9 mainstream peers (6 boys, 3 girls, aged 10 – 17 years) in semi-structured interviews.

The discussions revealed a wide variety of attitudes toward autism in general – positive, neutral and negative – and the satellite children and young people in particular. Mainstream children and young people were conscious of their lack of knowledge and understanding of the satellite class members and their relative lack of contact with them. One young person said, “I don’t really know them. I see them a bit, just walking around the school. They act a bit different. We don’t know them that much really”. Another young person said, “they are always in a separate class to everyone else so I don’t really know much about them”, while another commented on the fact that – unlike their peers – children and young people in satellite classes were rarely unaccompanied, “they always have a teacher with them, with whatever they are doing”.

Mainstream students were generally enthusiastic about the idea of having more contact with – or at least to know more about – the satellite class students. They were interested in the possibility of the satellite classes coming and “mixing in our classes instead of having their own classes” and “coming along with us [on school trips] so we could actually spend more time together”. Another student agreed that, “although the teachers are around them, helping them, I think it would be quite nice to meet some people, who are quite—I wouldn’t say different—yeah, I’ll say different”. Critically, however, some students’ intentions were hindered by lack of confidence, “because I don’t really know what to do”.

BOX 6

ongoing connection with the special school, many felt that they did not quite belong to either: “you’re kind of floating in between”. Parents had experienced close collaborative relationships with staff at the special school, and noticed the change: “but now he goes there, everything I don’t know. That’s why a little bit different”. Parents whose English was less fluent also did not feel confident to contact host schools.

Teachers in the satellite classes also reported feeling slightly side-lined from mainstream teachers and school planning, saying that their classes were “not being thought of in advance, sort of tacked on the end. If we contact them and say, remember us? Then that’s when I get, oh, OK”.

### Feeling included

Some parents reported feeling conscious of the social stigma attached to attending a special school during their initial placement. Despite such stigma, they

felt vindicated in their decision to choose specialist provision by the extent of their child’s progress. Nevertheless, parents’ discussions of successful transitions to mainstream satellite classes were characterised by a sense of relief at resuming a more typical experience of schooling, for themselves and for their children: “He sees more normal places and things, it’s a nice calm environment. You go to your lunch when you feel like it, you walk down there by yourself; you’re in charge of putting the money on your card”.

Attaining a mainstream placement also allowed parents to feel some optimism for their child’s future: “if you’re in a special school, I think then it’s much harder, isn’t it, to go into the outside world”. Some even saw the change as critical in terms of their child’s long-term future. One mother reflected, “because at the end of the day, if I die – I’m not going to live forever – he needs to face the real world. So why not start now?”. Another mother

## THE CHILDREN AND YOUNG PEOPLE LEFT BEHIND

Difficulties managing change is a key feature of autism. During the year prior to transition, the main focus of Phoenix School’s preparation work was to prepare the transitioning children for their satellite class mainstream placement. Yet the children and young people who were not selected for transition to the satellite classes also experienced change – though to a lesser extent than those transitioning – by the restructuring of classes and the loss of familiar peers.

Two primary teachers at Phoenix School, whose classes were affected by the transition, felt that “there wasn’t necessarily a need to prepare” the students remaining, because the changes in class composition were not so unusual, as many students transitioned into new classes or

schools at the beginning of a new academic year. One teacher also felt that many of the children in his class were not socially aware so that they did not notice the presence or absence of the satellite group. The exception to this was the most verbally-able remaining child, who had “felt quite left out” when some of his peer group transitioned to the satellite classes. One teacher commented, “we never clearly said, you’re not going to go – I mean we did, but I think we did it too late”.

Nevertheless, teachers did notice changes in their class following their peers’ transition to the satellite classes. They reported that the restructuring of classes resulted in more homogeneous groups in the special school, with more similar levels of verbal ability.

For example, one class lost four peers to the satellite classes, and received three new peers. The teacher characterised the new class as “less verbal, more sensory”, and commented that by losing more verbal members, the class had become “a kind of calmer, quieter environment”. According to another teacher, fewer verbal interactions taking place meant that the remaining children began to interact more using their visual communication (PECS) supports and seemed to be more socially aware. One teacher remarked that the loss of more verbally able classmates allowed some remaining children to become the new role models in the class: “I think they have taken on that role of responsibility now that the other pupils have gone”.

BOX 7

said, “to say he’s ended [his school career] by leaving a special school and being part of mainstream – it’s given him a kick into life”.

Parents felt that having their children accepted into a mainstream social and educational environment was in itself a positive outcome: “knowing that he’s there, generally for us as a family, just made us happy. Even the extended family – my mum, the uncles, whatever”. Another mother considered whether she felt, after transition, that he was better socially accepted or better socially integrated: “Definitely integrated. Yes. We weren’t really bothered about being accepted because we were more about him being happy. But we got all three”.

**“TO SAY HE’S ENDED [HIS SCHOOL CAREER] BY LEAVING A SPECIAL SCHOOL AND BEING PART OF MAINSTREAM – IT’S GIVEN HIM A KICK INTO LIFE”**  
**PARENT**

## SUMMARY

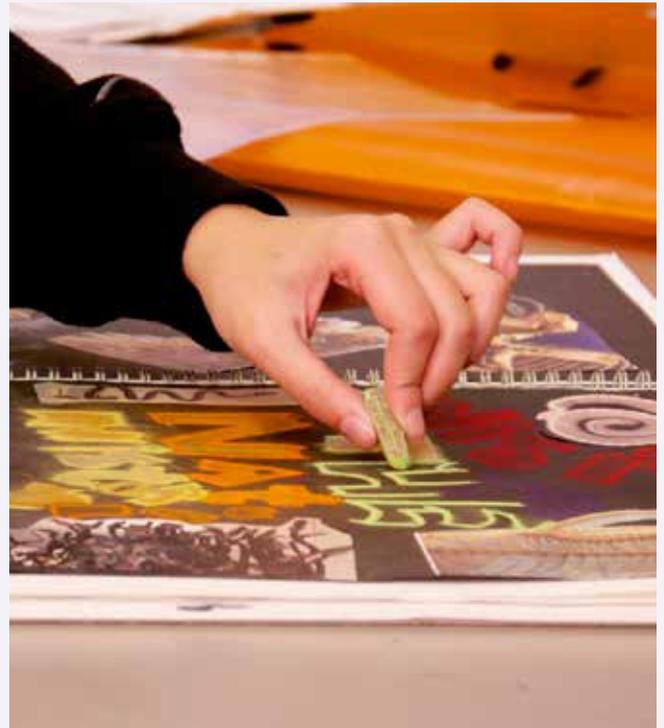
- Overall, the young people, their parents and their teachers were extremely positive about their satellite placements and identified encouraging outcomes in terms of students’ learning, behaviour and social awareness.
- Many parents reported disappointing mainstream placements in their children’s early school careers but were pleased both to have secured a positive special school placement and, especially, to have their child re-joining mainstream education.
- There was considerable agreement between teachers, parents and children that fewer behavioural issues in the satellite classes were a key benefit of the transition, enabling children and young people to ‘raise their game’ in terms of their learning and their own behaviour.
- Although the satellite students and their families did not appear to be fully integrated into the life of host schools, families considered inclusion in the mainstream satellite classes as a positive outcome in itself, and some perceived a greater sense of social inclusion and acceptance for their children.

## 6. CONCLUSION

The most striking finding in our research was that the children and young people, their parents and their teachers, were each unanimous in their endorsement of their experience at their satellite class placements and their belief in this version of the satellite model. The young people all reported preferring their new schools to their older ones, describing a multitude of benefits including larger outdoor spaces, the continuity of staff and peers, the “calmer” atmosphere, more stimulating work, fewer incidents of challenging behaviour by peers and the presence of more people “who can talk.” Parents also celebrated the inclusion of their child in this environment. One mother went as far as to say: “This is what we’ve always wanted.” The teachers we interviewed were equally positive, stressing better behavioural regulation by children and better classroom focus, resulting in better educational opportunities. They additionally discussed the advantages of more homogeneous class groups in terms of learning ability, which allowed more focused and more challenging teaching. Importantly, teachers rated their young people’s progress as well above expectations, at least for the first year in placement.

These findings are both pleasing and, in some ways, surprising. There are, after all, at least two major challenges that the children and young people had to overcome in order to enjoy a positive experience. First, they had to face the task of transitioning from a previous school to the new one. And, second, they needed to adapt to a mainstream environment that may be considered more challenging than a special school environment, particularly in terms of more complex social demands and fewer accommodations for sensory difficulties. The reports we received suggest that those in the satellite classes were managing both of these potential difficulties admirably.

With regard to transition, the young people who moved to satellite classes in this project showed no adverse negative effects according to the questionnaire measures we used. The stability of scores in these measures indicates that the behavioural, social and emotional characteristics of young people and their estimations of their quality of life were not adversely affected by transition to



mainstream school. The overall picture of well-managed transitions, effected with comparatively little anxiety, contrasts markedly with the stressful experiences reported for children on the autism spectrum who make transitions from mainstream primary to secondary provision [for example, 50].

In seeking to explain this success, our report suggests that the selected young people acquired critical skills from the ‘hidden curriculum’ while at special school that prepared them for mainstream inclusion. Furthermore, the structure of the satellite model used here – in particular the elements of continuity alongside the change of placement – supported these young people through transition and into supported mainstream placement. In particular, parents’ accounts of their experiences with the special school before transition – the collaborations and achievements described to us – suggest that they had faith that their children would continue to benefit from the autism-specific expertise of the school and its teachers, factors that parents consistently report as critical to the success of mainstream placements [27,32]. The finding that parents prefer satellite placements mirror those of research for intellectually able young people on the autism spectrum [for example, 51].

Immediately following transition, when it came to adapting to the potentially more demanding environment of the satellite school, it appears that the children and young people responded positively to the expectation of behaviour in the new school context. We did not find evidence that exposure to the pressures of mainstream life undermined emotional and behavioural control [31] and we heard of many examples of better behavioural regulation than in the previous placement. We believe this is in part because controls on young people's experience of the potentially stressful aspects of mainstream life were built into the structure of the scheme from the outset. It is also most likely in part due to successful role modelling by other students. In seeking to explain this apparent success, parents consistently mentioned the presence of positive behavioural role models and expectations of behaviour, and the positive effect of leaving behind models of challenging behaviour that had previously been dominant.

The fact that these successes also applied to children and young people with often-significant intellectual difficulties in this project must be considered the most distinctive achievement of the satellite classes. The question of inclusion in mainstream schooling for autistic children takes account almost exclusively of children and young people who are intellectually able. Many studies explicitly exclude those with intellectual disability [for example, 31,44], in spite of some evidence that this group may thrive in mainstream placements when structured autism-specific specialist teaching is available [17]. The findings here support the idea that inclusion in a mainstream setting may be beneficial for many in this distinct group, and for their families. It sends an important message that when children and young people on the autism spectrum have additional intellectual difficulties, the choice of a special school placement need not lead to permanent exclusion from the mainstream of schooling.

Given these remarkable successes, it is right of course for the Phoenix satellite classes to continue to be ambitious and seek still further improvement. The one area that suggests itself from our work concerns relations between the children and young people in the satellite classes and those in the mainstream school. The children and young people in this study expressed satisfaction with the number of friendships

they had, but these were almost exclusively within the satellite classes. Their social skills were reported to be developing in the mainstream environment and they reportedly had friendly relations with mainstream peers, but few reported any real friendships - at least for the moment. This level of interaction may have suited the skills and inclinations of young people, of course, most of whom showed little desire for further friendships. But further inclusion of satellite class children and young people with the broader school environment might have been advantageous in developing understanding - and acceptance - of disability generally and autism specifically. In other settings, action to improve the attitudes of mainstream peers have been shown to be critical to the participation of included children and young people on the autism spectrum in school life [49,52,53], while the social engagement of autistic children and young people has secondary effects in other important areas like language [54]. This is, therefore, worthy of consideration here. Importantly, of course, there are possible benefits on both sides from such interaction. More meaningful contact with satellite students presents valuable learning opportunities to mainstream peers [55], with potential to influence in the longer term how they respond to social norms [56].

This suggestion aside, however, the success of this project with this distinctive population is striking. A number of studies of inclusion for children and young people on the autism spectrum have explicitly called for novel models of supported inclusion that offer effective teaching and support [17,30]. The results of this study suggest that this particular model has convincing advantages for children and young people with additional intellectual difficulties, and for their families, guaranteeing their right to a supportive and successful educational experience. ■

## 7. Notes

- 1. Department for Education. (2014).** Children and Families Act 2014. London: HMSO. Available at: <http://www.legislation.gov.uk/ukpga/2014/6/contents/enacted>
- 2. Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016).** What terms should we use to describe autism? Perspectives from the UK autism community. *Autism*, 20, 442-462.
- 3. Sinclair, J. (1999).** Why I dislike 'person-first' language. Retrieved from [http://web.archive.org/web/20090210190652/http://web.syr.edu/~jsincla/person\\_first.htm](http://web.archive.org/web/20090210190652/http://web.syr.edu/~jsincla/person_first.htm)
- 4. Unesco (1994).** The Salamanca Statement and Framework for action on special needs education: adopted by the World Conference on Special Needs Education; Access and Quality. Salamanca, Spain, 7-10 June 1994. Unesco.
- 5. Department for Education/Department of Health (DfE/DOH). (2014).** Special educational needs and disability code of practice: 0 to 25 years. Statutory guidance for organisations who work with and support children and young people with special educational needs and disabilities. London: DfE/DOH. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/398815/SEND\\_Code\\_of\\_Practice\\_January\\_2015.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/398815/SEND_Code_of_Practice_January_2015.pdf)
- 6. Sheerman, B., & Blackman-Woods, R. House of Commons Education and Skills Committee, (2007).** Special Educational Needs: Assessment and Funding, Tenth Report of Session 2006.
- 7. Parsons, 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, 37-58.
- 8. Baird, G., Simonoff, E., Pickles, A., Chandler, S., Loucas, T., Meldrum, D., & Charman, T. (2006).** Prevalence of disorders of the autism spectrum in a population cohort of children in South Thames: the Special Needs and Autism Project (SNAP). *The Lancet*, 368, 210-215.
- 9. Brugha, T. S., McManus, S., Bankart, J., Scott, F., Purdon, S., Smith, J., et al. (2011).** Epidemiology of autism spectrum disorders in adults in the community in England. *Archives of General Psychiatry*, 68, 459-65.
- 10. American Psychiatric Association (APA). (2013).** *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Washington, DC: APA.
- 11. 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, 132-140.
- 12. Hebron, J., & Humphrey, N. (2013).** Exposure to bullying among students with autism spectrum conditions: A multi-informant analysis of risk and protective factors. *Autism*, 18, 618-630.
- 13. Ashburner, J., Ziviani, J., & Rodger, S. (2008).** Sensory processing and classroom emotional, behavioral, and educational outcomes in children with autism spectrum disorder. *American Journal of Occupational Therapy*, 62, 564-573.
- 14. Simonoff, E., Pickles, A., Charman, T., Chandler, S., et al. (2008).** Psychiatric disorders in children with autism spectrum disorders: Prevalence, comorbidity, and associated factors in a population-derived sample. *Journal of the American Academy of Child and Adolescent Psychiatry* 47, 921-929.
- 15. Matson, J. L., & Shoemaker, M. (2009).** Intellectual disability and its relationship to autism spectrum disorders. *Research in Developmental Disabilities*, 30, 1107-1114.
- 16. Kurth, J., & Mastergeorge, A. M. (2010).** Impact of setting and instructional context for adolescents with autism. *The Journal of Special Education*.
- 17. Panerai, S., Ferrante, L., & Zingale, M. (2002).** Benefits of the Treatment and Education of Autistic and Communication Handicapped Children (TEACCH) programme as compared with a non-specific approach. *Journal Of Intellectual Disability Research*, 46, 318-327.

- 18. Department for Education (1996).** Education Act 1996. London: HMSO. Retrieved from: <http://www.legislation.gov.uk/ukpga/1996/56/contents/enacted>. Department for Education.
- 19. Department for Education (2014).** Children with Special Educational Needs 2014: An Analysis. Retrieved from: <https://www.gov.uk/government/statistics/children-with-special-educational-needs-an-analysis-2014>
- 20. McNerney, C., Hill, V., & Pellicano, E. (2015).** Choosing a secondary school placement for students with an autism spectrum condition: A multi-informant study. *International Journal of Inclusive Education*, 19, 1096-1116.
- 21. Lindsay, G., Dockrell, J. E., Mackie, C., & Letchford, B. (2005).** Local education authorities' approaches to provision for children with specific speech and language difficulties in England and Wales. *European Journal of Special Needs Education*, 20, 329-345.
- 22. Charman, T., Pellicano, E., Peacey, L. V., Peacey, N., Forward, K., & Dockrell, J. (2011).** What is good practice in autism education? London: Autism Education Trust. <http://www.autismeducationtrust.org.uk/resources/good%20practice%20report.aspx>
- 23. Byrne, A. (2013).** What factors influence the decisions of parents of children with special educational needs when choosing a secondary educational provision for their child at change of phase from primary to secondary education? A review of the literature. *Journal of Research in Special Educational Needs*, 13, 129-141.
- 24. 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, 132-140.
- 25. Crisman, B. W. (2008).** Inclusive programming for students with autism. *Principal*, 88, 28-32.
- 26. Maras, P., & Aveling, E. L. (2006).** Students with special educational needs: transitions from primary to secondary school. *British Journal of Special Education*, 33, 196-203.
- 27. Makin, C., Hill, V., & Pellicano, E. (2016).** The primary-to-secondary school transition for children on the autism spectrum: A multi-informant mixed-methods study. Manuscript submitted for publication.
- 28. Whitaker, P. (2007).** Provision for youngsters with autistic spectrum disorders in mainstream schools: What parents say - and what parents want. *British Journal of Special Education*, 34, 170-178
- 29. Kasari, C., S. F. N. Freeman, N. Bauminger, and M. C. Alkin (1999).** Parental perspectives on inclusion: Effects of autism and Down syndrome. *Journal of Autism and Developmental Disorders*, 29, 297-305.
- 30. Carrington, S., & Graham, L. (2001).** Perceptions of school by two teenage boys with Asperger syndrome and their mothers: A qualitative study. *Autism*, 5, 37-48.
- 31. Ashburner, J., Ziviani, J., & Rodger, S. (2010).** Surviving in the mainstream: Capacity of children with autism spectrum disorders to perform academically and regulate their emotions and behavior at school. *Research in Autism Spectrum Disorders*, 4, 18-27.
- 32. Jindal-Snape, D., Douglas, W., Topping, K. J., Kerr, C., & Smith, E. F. (2005).** Effective education for children with autistic spectrum disorder: Perceptions of parents and professionals. *International Journal of Special Education*, 20, 77-87.
- 33. Waddington, E. M., & Reed, P. (2006).** Parents' and local education authority officers' perceptions of the factors affecting the success of inclusion of pupils with autistic spectrum disorders. *International Journal of Special Education*, 21, 151-164.
- 34. Myles, B. S., & Simpson, R. L. (2001).** Understanding the hidden curriculum an essential social skill for children and youth with Asperger syndrome. *Intervention in school and clinic*, 36, 279-286.
- 35. Tissot, C. (2011).** Working together? Parent and local authority views on the process of obtaining appropriate educational provision for children with autism spectrum disorders. *Educational Research*, 53, 1-15.
- 36. Office for Standards in Education (OFSTED) (2010)** The Special Educational Needs and Disabilities Review: A statement is not enough, London: OFSTED.

- 37. Reed, P., & Osborne, L. A. (2014).** Mainstream education for children with Autism Spectrum Disorders. In *Handbook of Early Intervention for Autism Spectrum Disorders* (pp. 447-485). Springer New York.
- 38. Osborne, L. A., & Reed, P. (2011).** School factors associated with mainstream progress in secondary education for included pupils with Autism Spectrum Disorders. *Research in Autism Spectrum Disorders*, 5, 1253-1263.
- 39. Waddington, E. M., & Reed, P. (2016).** Comparison of the effects of mainstream and special school on National Curriculum outcomes in children with autism spectrum disorder: an archive-based analysis. *Journal of Research in Special Educational Needs*. DOI: 10.1111/1471-3802.12368
- 40. Woods, D., Husbands, C., & Brown, C. (2013).** *Transforming Education for All: The Tower Hamlets Story*.
- 41. O'Hara, J., & Martin, H. (2003).** Parents with learning disabilities: a study of gender and cultural perspectives in East London. *British Journal of Learning Disabilities*, 31, 18-24.
- 42. Office for Standards in Education (OFSTED) (2014)** *Inspection Report for Phoenix School*, 2013. London: OFSTED.
- 43. Roberts, J. M., Keane, E., & Clark, T. R. (2008).** Making Inclusion Work: Autism Spectrum Australia's satellite class project. *Teaching Exceptional Children*, 41, 22-27.
- 44. Keane, E., Aldridge, F. J., Costley, D., & Clark, T. (2012).** Students with autism in regular classes: A long-term follow-up study of a satellite class transition model. *International Journal of Inclusive Education*, 16, 1001-1017.
- 45. Constantino, J. N., & Gruber, C. P. (2007).** *Social responsiveness scale (SRS)*. Los Angeles, CA: Western Psychological Services.
- 46. Ravens-Sieberer, U., & Kidscreen Group Europe. (2006).** *The Kidscreen questionnaires: quality of life questionnaires for children and adolescents: Handbook*. Pabst Science Publ..
- 47. Lloyd, V., Gatherer, A., & Kalsy, S. (2006).** Conducting qualitative interview research with people with expressive language difficulties. *Qualitative Health Research*, 16, 1386-1404.
- 48. Connor, M. (2000).** Asperger syndrome (autistic spectrum disorder) and the self-reports of comprehensive school students. *Educational Psychology in Practice*, 16, 285-296.
- 49. Ochs, E., Kremer-Sadlik, T., Solomon, O., & Sirota, K. G. (2001).** Inclusion as social practice: Views of children with autism. *Social Development*, 10, 399-419.
- 50. Frederickson, N., Jones, A. P., & Lang, J. (2010).** Inclusive provision options for pupils on the autistic spectrum. *Journal of Research in Special Educational Needs*, 10(2), 63-73.0
- 51. Carter, M., Stephenson, J., Clark, T., Costley, D., Martin, J., Williams, K., ... & Bruck, S. (2014).** Perspectives on regular and support class placement and factors that contribute to success of inclusion for children with ASD. *Journal of International Special Needs Education*, 17, 60-69.
- 52. Falkmer, M., Granlund, M., Nilholm, C., & Falkmer, T. (2012).** From my perspective—Perceived participation in mainstream schools in students with autism spectrum conditions. *Developmental Neurorehabilitation*, 15, 191-201.
- 53. Falkmer, M., Parsons, R., & Granlund, M. (2012).** Looking through the same eyes? Do teachers' participation ratings match with ratings of students with autism spectrum conditions in mainstream schools? *Autism Research and Treatment*, 2012.
- 54. Rogers, S. J. (2000).** Interventions that facilitate socialization in children with autism. *Journal of autism and developmental disorders*, 30, 399-409.
- 55. Booth, T. & Ainscow, M. (2000)** *Index for Inclusion*. Bristol: Centre for Studies in Inclusive Education.
- 56. Chang, L. (2004).** The role of classroom norms in contextualizing the relations of children's social behaviors to peer acceptance. *Developmental psychology*, 40, 691.

# About us

The UCL Institute of Education, University College London, is both the largest and the leading research and teaching institution into education theory and practice in the UK. It houses the Centre for Research in Autism and Education (CRAE), a unique centre focused on helping to enhance the lives of autistic people and their families ([crae.ioe.ac.uk](http://crae.ioe.ac.uk)) through (1) conducting groundbreaking scientific and applied research to enhance knowledge about interventions, education and outcomes for autistic children, young people and adults and (2) working with professionals on the ground and with those directly impacted by autism to promote awareness, and acceptance, of autism.

## Citation

Croydon, A., Remington, A., Kenny, L., & Pellicano, E. (2016).

Satellite classes: A promising model for education children and young people on the autism spectrum. London, UK: University College London.