"The programme was very effective and empowering. It allowed me to support the autistic child in my class with confidence and impact"

2018 – 2019 participant
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1. Introduction

The Autism Research Project (ARP) led by London South Teaching School Alliance (LSTA) was a participatory research project which sought to develop and enhance teacher professional development by engaging schools in designing, leading and implementing their own research project. Each school nominated a teacher and leader to work as a duo and attend sessions with a programme lead from LSTA, a researcher from UCL Centre for Inclusive Education, Dr Amelia Roberts and three programme facilitators from two local schools with an ASD resource base. This enabled them to find out more about the existing research and knowledge base around autistic pupils across different educational settings and work together to design and evaluate their own intervention with the aim of:

- improving the experience and/or outcomes of one or more autistic pupils in their school
- increase teacher understanding and awareness of the issues faced by these pupils.

The project was designed around the concept of using Research Learning Communities to inform professional practice. Pairs of senior leaders and teachers in 12 schools were empowered to develop a deep understanding of the needs of pupils with autism in their schools and to design interventions to change practice and improve pupil learning. Participants were supported to work their way through a research cycle which explored what worked for their pupils, families and teachers, in their own contexts.

Participants began by exploring a literature review from the UCL Cognitive Neuroscience team, which summarised the most important recent research on autism, a field which is in constant development. They were also supported to design their own tools to gather baseline data on a set of focus pupils and their teachers, including measures for wellbeing, engagement, and academic performance, and designing tools such as questionnaires, interviews, behaviour tracking, etc. Analysing this data against what they had found in the literature review helped them work collaboratively to design their own research questions.

Teachers then designed a change to practice that they would test in their own school, with the aim of making a difference not just for the focus pupils, but for all pupils with autism in the school. They would measure this impact using a similar set of data tools at the end of the project and act as critical friends to each other as the year progressed.

Teachers also had the opportunity to observe practice in the mainstream schools with specialist autism units, and to receive a coaching visit from one of the three SENDCos from these same schools. These visits aimed to build confidence and enable a deep understanding of the focus pupils’ needs. Nine primary schools (including one all-through school) took part in the full programme and attended five each focusing on a different theme. These included:

- Session 1: What do we know about the experiences of pupils with autism and their parents of mainstream education? Exploring the evidence base for autism: a review of recent research. Which pupils do you want to make a difference to, and what would you want their learning and wellbeing to look like if the project were a success? What tools can you use in your own schools to gather data on the learning and wellbeing of these students?
Session 2: What data have you gathered? What does it tell you? What more would you like to know? Referring back to the research evidence, and aligning it with the data you have collected, what will your change to practice look like (3D modelling activity)? Practical resources you can access and use.

Session 3: Reviewing progress towards your goals - sharing successes and challenges.

Session 4: Preparing to gather your impact data - What do you want to capture and why? Who do you want to share this with? Drafting case studies.

The autism project lasted for one academic year with a final dissemination event taking place in July 2019.

Methodology

This study incorporated the following methods of data collection:

- **A pre- and post-programme audit**: to assess professional experience in relation to both research skills and working with autistic pupils.
- **Case studies**: participating schools were asked to write up and evidence the outcomes of their projects.
- **Presentations**: each school made a presentation to other participating schools at a final workshop session in July 2019.
- **Interviews**: with teachers, school leaders/SENCOs, and programme leads.
- **Evaluation forms**: Participants were asked to respond to a short series of questions at the end of the programme.

The data was returned to an external associate researcher who aggregated and analysed it in order to examine approaches and interventions and their perceived impact on autistic pupils, teacher professional development and whole-school approaches to meeting the needs of ASD pupils.

Another external evaluator, Dr Nick Peacey from UCL Institute of Education also observed the final two sessions, and provided a short report with recommendations (Appendix 1).

Key findings

Rationale: What issues were schools seeking to address?

Overall research question: Will supporting teachers to carry out classroom research into better meeting the learning and wellbeing needs of children with autism improve learning outcomes for such pupils across their school?
We know from recent research that 60% of young people with autism and 70% of their parents say that the main thing that would make school better for them is having a teacher who understands autism, and that fewer than half of children on the autistic spectrum are happy at school. Fewer than half of teachers interviewed said they felt confident about supporting a child on the autistic spectrum in their class. This evidence is corroborated locally by the anecdotal experiences of specialist teachers in schools with special needs units, who engage in outreach work with local schools.

In developing and refining their research questions, five key themes emerged around which nine participating schools were facing challenges:

- social skills and speech development
- sensory needs
- behaviour and emotional self-regulation
- independent learning
- teacher knowledge and understanding.

Methodology and methods: Key approaches used by schools

While schools focused their interventions around one key method for example, small group sessions (four schools), one-to-one sessions (two schools), classroom/school environment (two schools), teacher CPD (one school), most schools took a multi-pronged approach with many using a combination of discrete sessions, classroom adjustments, and teacher CPD.

The majority of schools chose to focus on a small sample of pupils, with three focusing on just one child, and four more focusing on less than six. The two schools that focused on the classroom and school environment took into account a full year group and the whole school respectively.

Common themes across the interventions included the use of visual prompts, verbal prompts, relationship building (with parents, staff and pupils), a focus on wellbeing, self-regulation, independence and sensory needs, and building staff understanding of ASD pupils.

Findings/Results: Progress made by schools

All schools reported that they had been able to observe some quite significant impact on focus pupils’ learning behaviours, in particular on their social skills and speech development, independent learning, and behaviour and emotional self-regulation. For example, pupils were seen to develop their language, interact more positively with others, focus better during group activities, increase their levels of imaginative play, identify their emotions and use strategies to self-regulate.

Staff reflected that the impact on academic performance was more difficult to observe. It hadn’t been a focus for many of the participant schools since they wished to focus on learning behaviours with the logical conclusion that this would likely impact academic progress for some.
However, some pupils were seen to make progress against the EYFS PSED baseline assessment measures and were now meeting age-related expectations across the curriculum.

Participants were able to identify a range of ways in which the project had had a wider school impact. Most notably, these included raising awareness and understanding about the needs of ASD pupils, reminding schools about the power of participatory research, producing evidence that has allowed them to build a case for replication of their intervention across the school, and supported staff in creating a shared vision for change. They were also able to identify a range of ways in which the project had impacted on their own personal learning with several citing that they had learnt new strategies for working with ASD pupils, how important it is to focus on individual ASD pupils and the importance of keeping the focus of a study small and manageable. Participating staff were able to offer an extensive list of advice for other schools wishing to make similar changes in their own schools suggesting that the ARP had indeed been a valuable source of CPD.

What did participants say about the project?

Teachers said that their involvement in ARP had developed their professional practice ‘enormously’. They had enjoyed the opportunity to talk to other schools involved in the programme and share ideas and experiences. This had led them to new strategies and ideas they had been unaware of. Programme leaders felt that the learning community had reduced a sense of isolation and promoted the confidence of participants. They also reflected on the way they had been able to develop their own leadership skills within the programme by designing, trialling and championing their interventions at school.

Attending the sessions as a pair was considered to be ‘massively useful’ and ‘essential’ by teachers as it gave them an opportunity to discuss individual pupils with someone more senior and they both had the opportunity to witness the effectiveness of interventions at other schools. Two of the school leaders we spoke to had appreciated the opportunity for involvement and very much recognised the benefits of being able to work with other schools on a similar journey. However, one school leader would have preferred for their SENCO to attend alone as she felt that this would have enhanced the SENCOs knowledge and skills and reduced the burden on her school of two absent staff.

Teachers and school leaders had appreciated the support and guidance on data collection and now appreciated much more how the use of data could be used to identify when and how a project was making an impact. They had used the data to drive buy-in and support a case for replication. Indeed, programme leads themselves felt that the research cycle very much promoted more accountability and rigour to the CPD process.

Participants felt that the programme had covered a lot and recognised that this may have led some of the facilitators to feel quite time pressured. In order to make the programme more efficient and effective and add even greater rigour, participants and programme leads suggested that schools be more strongly encouraged to collect data around learning behaviours in additional to academic progress data, build more time into the programme so teachers can informally chat about their experiences and probe on ideas and strategies that have been shared, deliver a slightly more in-depth introduction to some of the ideas, the core ideas around teaching in autism, and more structure or goal setting around the observations.
Measuring the overall impact on CPD

Knowledge and experience of research

Teachers and school leaders were asked to rate their knowledge and experience of research under a number of key statements using a score of 1-5. At the start of the programme teachers scored themselves an average of 2.3 for knowledge and experience of research. By the end of the programme this had risen to an average score of 3.5. At the start of the programme senior leaders scored themselves an average of 3.1. By the end of the programme this had risen to an average score of 3.8.

Knowledge and experience of working with autistic pupils

When asked about their experience of working with autistic pupils, the audits showed an overall improvement in both teacher’s and senior leader’s perceptions of their knowledge and skills. By the end of the programme, all participants responding to the audit agreed that they had the knowledge and skills to: teach children with high-functioning and low functioning autism; help ASD pupils to develop their social skills; help ASD pupils to regulate their emotions; and help ASD pupils to develop relationships with other people.

Headteachers were asked to complete and end of programme audit. Eight responded and the results demonstrated that they felt the programme had had an impact on pupils, and the skills and understanding of staff. All said that their overall view of the programme was either good or excellent and seven expressed an interest in taking part again.

2. Findings

Rationale: What issues were schools seeking to address?

The research questions posed by each of the nine schools act as a good high-level summary of the issues that participant schools were facing at the start of the project. They were as follows:

<table>
<thead>
<tr>
<th>Case study</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case study 1</td>
<td>How will the delivery of weekly TA focused sessions impact upon the social communication and turn taking skills of our Reception pupils with ASD? How will the targeted skills generalise to the classroom context?</td>
</tr>
<tr>
<td>Case study 2</td>
<td>How can developing our two-year old environments to become more ASD friendly support children to make further progress?</td>
</tr>
<tr>
<td>Case study 3</td>
<td>How can we improve the well-being of ASD children outside of the classroom provision?</td>
</tr>
<tr>
<td>Case study 4</td>
<td>How can we enable children with Autism to develop expressive language?</td>
</tr>
</tbody>
</table>
Case study 5  How can we reduce the number of emotional outbursts?

Case study 6  How does a choice board and a 'Now and Next’ system engage and empower the focus pupil to structure her own free-flow and how does this impact her willingness and tolerance with non-chosen activities?

Case study 7  To what extent can Lego Therapy help autistic children develop transferable social and language skills?

Case study 8  How do we get children with ASD to work independently in class?

Case study 9  What impact will making classrooms ‘autism friendly’ have on the relationships between staff and children with a diagnosis of autism?

In developing and refining their research questions, five key themes emerged which suggest that the schools were facing challenges around:

- social skills and speech development
- sensory needs
- behaviour and emotional self-regulation
- independent learning
- teacher knowledge and understanding.

Methodology and methods: Key approaches used by schools

While schools focused their interventions around one key method (for example, small group sessions (four schools, usually delivered multiple times a week), one-to-one sessions or interaction (two schools, usually delivered daily), classroom/school environment (two schools), teacher CPD (one school), most schools took a multi-pronged approach with many using a combination of discrete sessions, classroom adjustments, relationship building and teacher CPD.

The small group sessions tended to be used where social skills and speech development were important, one-to-one sessions where behaviour and emotional self-regulation was the focus, and environmental adaptations where sensory needs, emotional self-regulation and independent learning were significant themes. Teacher CPD was, of course, employed where staff knowledge and understanding were a cause for concern (but was a theme running throughout all programmes). Three schools undertook their study in the early years, two in key stage 1, three in key stage 2 and one applied it across the school. In the majority of cases the interventions were delivered within curriculum time.

The majority of schools chose to focus on a small sample of pupils, with three focusing on just one child, and four focusing on less than six. The two schools that focused on the school and classroom environment took into account a full year group (case study 2) and the whole school (case study 3).
Common themes across the interventions were:

- the use of visual prompts and Makaton (for example using communication boards and ‘now and next’ pouches)
- modelling language and the use of consistent verbal prompts
- pupil observation and relationship building to aid better understanding
- direct relationship with parents to better understand how the child behaves in the home environment and vice versa, and to develop a set of consistent approaches across both home and school environments
- a focus on wellbeing, self-regulation, independence and sensory needs as a first step towards addressing academic progress
- teacher CPD to aid understanding of ASD pupils and introduce them to strategies; with the aim of developing a consistent approach across the school.

Findings/Results: Progress made by schools

Observed impact on pupils

All schools reported that they had been able to observe some quite significant impact on focus pupils’ learning behaviours which included:

**Social skills and speech development:**

- The ability to take turns
- Language development
- Pupils are interacting more positively with each other and engaging in activities with their peers and staff on duty.
- Uptrend in the number of independent, verbal and physical communication attempts with other children
- Other children interacting more with target child
- Focus child has more empathy for others and can reflect on how his behaviour affects others
- Focus child’s ability to listen to the other children developed, and he seemed to understand that they needed to work together to achieve the goal

**Independent learning:**

- Focusing during group activities both with an adult or independently
- Focusing and participating during whole class sessions
- More independence overall
- Increased levels of creative and imaginative play
- Following transitions and actions of other children as a cue of what to do
**Behaviour and emotional self-regulation:**

- Pupils are identifying their emotions and communicating them to adults using language and visuals.
- Pupils are using strategies to self-regulate e.g. going to a calm play area, taking time out of the game.
- Reduced ‘red’ behaviours logged.
- The focus child is significantly happier in school.
- Less defiance.
- More comfortable accepting correction when they’ve got something wrong.

Staff reflected that the impact on academic performance was more difficult to observe. This hadn’t been a focus for many of the participant schools since they wished to focus on learning behaviours with the logical conclusion that this would likely impact academic progress for some. When asked about academic progress a number of the schools referred back again to improved learning behaviours. Where schools were able to identify measurable progress this included:

- Pupils making progress against the EYFS PSED baseline assessment measures.
- Speech development supporting the improvement of writing skills.
- Focus pupil is working in Greater Depth at the Age-Related Expectations in all areas.
- Accelerated progress made in writing and maths.

**Wider school impact**

Participants were able to identify a range of ways in which the project had had a wider school impact. Most notably, these included raising awareness and understanding about the needs of ASD pupils, reminding schools about the power of participatory research, producing evidence that has allowed them to build a case for replication of their intervention across the school and supported staff in creating a shared vision for change. They were also able to offer a range of ways in which the project had impacted on their own personal learning with several citing that they had learnt:

- how important they now realise it is to focus on individual ASD pupils and build a relationship with them and their parents.
- new strategies for working with ASD pupils.
- the importance of keeping the focus of a study small and manageable.
- the importance of establishing routine and consistency of approach.
- how to manage change and staff buy-in.
- about the need to allocate adequate time and be flexible.
- not to overlook high functioning ASD pupils.
Lessons learnt for other schools

Lesson for other schools focused around the following key themes:

Identifying appropriate interventions:

- Build relationships with and seek advice from external services such as Educational Psychologists, Speech Therapists, Occupational Therapists and the Autism Service
- Building expressive language will support development in all other areas

Delivery:

- Consider the school environment. Specific suggestions included: use texture and colour when redesigning spaces, bring nature into the environment, make school environments as predictable as possible for pupils - using consistent language and visuals (inside and outside the classroom)
- Set clear expectations
- Encourage staff to use consistent language and strategies or approaches
- The importance of visuals and consistency with visuals ‘cannot be expressed enough’
- Allowing some free choice can create greater acceptance of the non-negotiables
- Think about the logistics of delivery and organise resources so they are easily accessible,
- Have clear targets for what you are hoping to develop in the target children

Staff buy-in:

- Work collaboratively across the school
- Whole school ‘buy in’ from all staff members takes time – persist with reminders and modelling to encourage all staff to participate
- Give staff ownership of developing resources and interventions
- Focus on the small victories and invest the time to make it work

Understanding the pupil:

- Design interventions and support strategies in a way that is tailored to their specific needs and interests; take every child with autism as an individual case
- Take time to get to know your pupils and their families
3. Case studies

Case study 1: Alfred Salter Primary School

About this school

A mainstream Primary school, awarded a ‘Good’ rating from Ofsted in February 2019 (following a previous ‘requires improvement’ score. This is a larger than average primary school where the percentage of pupils supported by an EHC plan is significantly higher than the national average; 21% of all pupils are on the SEND register, 21% of whom are diagnosed with ASD.

Driver for innovation

Six children new to the Reception year, all with traits or diagnosis of ASD. In a year group of only 44 children it was identified as a significant area of need that would require additional focus in order to support the setting. At this point, being the beginning of their schooling, the children did not have EHC Plans and the plan was to support them through SEN support.

“We knew that we would not be able to make EHCP applications for all of the children so needed to think differently about how we supported them through SEND support within the classroom environment.”

Their EYFS PSED baseline assessments showed all six children to be working below expected standard.

Research question

How will the delivery of weekly TA focused sessions impact upon the social communication and turn taking skills of our Reception pupils with ASD? How will the targeted skills generalise to the classroom context?

What approach did they take?

“We introduced three small groups (delivered 2-3 times a week for 30-40 minutes by a TA) focusing on social communication and turn taking skills. The aim was to provide a point of reference/model for the children to support their communication, with the aim that in time the skills would transfer to the classroom setting.

After one term of small group focused intervention, two of the children had made significant progress and it was felt they no longer needed to attend the intervention. The other children continued to receive the intervention, but the focus and input change slightly in order to support the transfer of skills back into the classroom and to facilitate the use of such skills across the setting. They continued to work in small groups with the adult, but this took place in the classroom. The focus shifted to the use of prompts to support in the following areas:
A prompt sheet was produced which included up to ten prompts within each of the above themes.

Impact & outcomes
Learning behaviours

Teachers feedback that they are seeing:

- More eye contact
- The ability to take turns, e.g. rolling and catching balls
- Waiting for their turn, e.g. during a story whoosh activity
- Asking for their turn, e.g. during whole class activities
- Focusing (completing task and staying at activity) during group activities both with an adult or independently
- Focusing and participating during whole class sessions
- Using the visual timetable to see what happens next
- Development of reading and handwriting
- Language development - from learnt phrases 'R and enter' to log onto a computer to two-way conversations answering questions and responding appropriately
- Developing a concern for others - especially if another child has been hurt or is crying
- Much more independence overall
- Wanting to be praised and showing their accomplishments to an adult
- Understanding that tasks may finish for a set time (end of free flow) but can be carried on later

This school collated data on attention and listening using the Reynell’s scale and scored the pupils on a scale of 1-5 with 1 being ‘distracted’ and 5 being ‘integrated for short periods’. Chart 1 shows that significant progress was made between the baseline and the summer observations.
Chart 1: Number of pupils against **attention and listening** (Reynell’s) score

![Chart 1](chart1.png)

This school also collated data on **Engagement in Learning** using the **Leuven** scale and scored the pupils on a scale of 1-5 with 1 being ‘extremely low’ and 5 being ‘extremely high’. Chart 2 shows that significant progress was made between the baseline and the summer observations.

**Chart 2: Number of pupils against engagement in learning (Leuven) score**

![Chart 2](chart2.png)
Social Interaction, social communication and behaviour (DSM 5)

Table 1 below also reveals some good progress in relation to social skills over the course of the project.

Table 1: Social Interaction, social communication and behaviour (DSM 5)

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Mostly</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of non-verbal behaviours such as eye to eye gaze, facial expression and body language</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>Jan</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>April</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>July</td>
</tr>
<tr>
<td>Initiating and sustaining interaction with peers</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>Jan</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>April</td>
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<td></td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>July</td>
</tr>
<tr>
<td>Flexible accommodation of changes to routines during play</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td></td>
<td>Jan</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
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<td>April</td>
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<td></td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
<td>July</td>
</tr>
</tbody>
</table>

Progress and attainment

By the Summer term five of the pupils made progress in all six of the EYFS PED baseline assessment measures and one made progress in four or more of the measures (since they were already at the top level for the SCSA measure no further progress was possible).

“Children involved in this group were originally considered for EHC plans, this is now less likely if tailored SEND support continues to be implemented and the children are able to transfer these skills naturally into the classroom environment.”

Impact on parents

“The discussions regarding the study has spurred one set of parents to engage with ASD support outside of school via private professionals. 2 parents are supportive of EHC plan applications and general happiness with the school and ASD support in class.”

Wider school impact

- Whole school approach has been picked up in Ofsted
- Visit from The Laurel Trust provided positive feedback, picked up on team approach to the project.

“The research project will feed into whole school training, with a particular focus around ASD awareness and also the use of prompts to support attention and listening within the classroom setting... We will share the prompt sheet across EYFS and KS1, and where appropriate across KS2.”
“The language development of this core group has enabled us as a school to identify an area of development in terms of structured conversations with children. Our Art Therapist has carried out a training session with support staff to ensure conversations being had with all children are well structured and thought through.”

Progress towards answering research question

“We feel the groups have had a big impact on the children. We have observed a direct transfer of skills from the group into the classroom.”

Lessons learnt

For other schools

“Working collaboratively with members within the school community. Our project involved class teacher, teaching assistant, SENCO, Deputy Headteacher and Speech and Language Therapist.”

“The close partnership we have with our external Speech and Language therapist has been significant in guiding and supporting us in the quality of the intervention we have designed and implemented. This is a relationship that has greatly benefited us as a school, with the significant language and communication needs we have. The depth of understanding and knowledge of an expert in this area is something we regularly draw upon and is a relationship I would recommend for any school with children exhibiting these needs.”

Personal learning

“The project has provided us with a greater focus on our pupils with ASD needs. We have been able to think clearly about each pupil more as an individual and therefore respond to their unique needs. It has enabled us to learn when to pull back and allow the ASD tendencies to happen and when to stop the children from completing certain actions, eg. Sensory. We have learnt to alter our own expectations on a day to day/hour to hour basis, depending on how the child is responding and what triggers may have occurred earlier in the day. We have thought more carefully about our class groupings and which children should work with which. It has given us a deeper opportunity to see the potential in the children and what they are capable of. We have also used the prompt sheet to support the rewording of questions in order to gain better responses. (This has been used with many children in the class not just the children in the project.)” (Class Teacher)

“As leaders we have seen the real benefit of the team approach we have used in implementing an effective intervention, using research and data to support the effectiveness.” (School Leader)
Engagement with research

“As a school we have been on a significant journey over the last two years, moving from Requires Improvement to Good with our Ofsted judgement. Use of research has been beneficial in supporting this journey across a range of areas”

The future

The focus group will continue into year 1, this is both to support the transition of these children into a new classroom and the demands of a new Curriculum, but also to continue to facilitate and develop their communication and attention skills. It will also be replicated in other year groups across the school.
Case study 2: Ann Bernadt and Nell Gwynn nursery Schools

About this school

Ann Bernadt and Nell Gwynn are federated nursery schools. Ann Bernadt was awarded a ‘Good’ inspection rating by Ofsted in February 2018 and Nell Gwynn was awarded a ‘Good’ rating in July 2015.

Driver for innovation

The two-year-old provision at the schools have vulnerable children who often turn out to have additional needs. Both settings had two-year-old rooms which were overly busy with print and colour and a tendency in each to display materials suited to older children. Ann Bernadt (AB) needs to ensure that all the environment meets the needs of all children aged 2-4 (as it offers free-flow between the two age groups) whereas Nell Gwynn (NG) can target the two-year-olds specifically.

“In both nurseries we hoped that through action research we could work with the teams to enable the learning environments to become more ASD friendly. We are hoping the impact of the project will support children with ASD (and suspected ASD) to feel more comfortable in their environment and begin to have opportunities to express themselves in a variety of ways.”

“We would also like staff to become more aware of children’s sensory needs, to have a better understanding of the terminology around ASD and, through more accurate observations, have informed conversations with parents about their child’s individual learning.”

They wanted to open staffs’ eyes to the potential of natural and open-ended resources.

Research question

How can developing our two-year old environments to become more ASD friendly support children to make further progress?

What approach did they take?

Use of research:

- Staff read a variety of books from children and adults with ASD such as ‘Fall down 7 times get up 8’, ‘The reason I jump’ by Naoki Higashida and ‘Odd Girl Out’ by Laura James. They also looked in detail at different sensory environment audits.
• Staff had recently visited a school delivering a Reggio Amelia approach (which focuses on self-directed, experiential learning in relationship-driven environments) and found their approach was all about natural resourcing.

Approach taken
Staff training:
• organised a staff training session and accessed videos’ on the national autism website and YouTube to promote understanding around ‘stimming’ and sensory needs,
• looked at the thinking around environments and what children with ASD need to thrive and supported staff to consider their own sensory needs and how that impacts on their daily life
• supporting staff confidence with open ended resources.
• developing understanding of ASD and the high needs and low needs language
• supporting understanding of behaviour in young children with ASD
• developing ‘out of the box’ thinking in different ways to meet needs and support sensory preferences
• defining stereotypes about what ASD is and how children present in certain ways.
• supporting children to begin to self-regulate - for example identifying when they would like to wear ear defenders
• We considered what the most importance resource for two-year olds were and why. The majority of staff answered that themselves as ‘teachers’ are the most important. This supported staff to become more aware of the importance of their interactions

Changes to learning area:
• reducing plastic and closed/fixed resourcing
• a less cluttered and more neutral learning environment
• natural resources which are suited to differing sensory needs (for example, using hessian in displays, using animal friends’ stones- for tactile play, fish tank in the 2-year-old, growing area using tyres to zone spaces).
• ear defenders are now available
• more space for free exploration (for example the growing areas and sensory space under the stairs)

Impact & outcomes
Learning behaviours
“We feel that reducing the plastics helped children with ASD as it gave them the opportunity to engage in open ended opportunities to express themselves. It has also helped to increase the number of sensory experiences that children can access independently and/or with support from adults.”
Teachers commented that the indoor access to sensory experiences had drawn a lot of children into the classrooms. They felt that the open-ended aspect of the resources had increased the children’s creative and imaginative play, especially at AB with the use of more space for the block area. The staff also have observed that the children with ASD or suspected ASD have been enjoying and accessing the new sensory experiences in the garden.

The intervention is thought to have supported children to become more aware of their own sensory needs, developed understanding of implications of light and sounds in learning environments and outside for children with ASD.

Impact on parents
- Parents made positive comments on the changes to the environment and how both classrooms felt like they had more space.
- It helped staff to be able to gain confidence to talk to parents about aspects of their child’s autism.
- Supported staff to write reports and observations about children with ASD from a new perspective, having knowledge to articulate what they are seeing using the correct terminology.

Wider school impact
- Created links with partner schools Rye Oak and Redriff drawing on their expertise.
- After interviewing staff, none thought that there needed to be any more resources for autistic children.
- Supported staff in creating a shared vision for change. Through the training and workshops they helped staff to begin to see the setting from the children’s perspective. To consider how overwhelming it could be when all your senses are heightened.

“We felt this has helped staff to have more empathy with children and, therefore, consider how they can meet their needs better. It impacted on staff understanding of why we wanted to change and improve the environments. “
- The environments have been changed and developed a great deal over the last academic year; the children have more access to sensory play and opportunities and experiences.
- They overheard more conversations from staff when a child comes in with additional needs about how they can support the parents both at home and in nursery.
Progress towards answering research question

- Data wise, the school feel it is a little too early to analyse if the changes have had significant impact on children with ASD.
- However, they feel that the staff are more confident in assessing children with ASD.
- Staff expect to see progress in attainment data at the end of the Summer term.

Lessons learnt

For other schools

- Consider texture and colour when redesigning spaces.
- Use every opportunity to bring nature into the environment.
- Support behaviour of children with ASD in a way that is tailored to their specific needs.
- Share the power of interviewing staff to find out what they know and what they have learnt during a project.
- Respect staff to identify their own training needs.

Personal learning

- Heightened knowledge of ASD and how they can support children of all nursery ages.
- A greater appreciation of how an uncluttered environment with natural materials and neutral décor can enhance the learning experience for children with ASD.

Engagement with research

- Helped staff to understand the importance of research and think about linking it in with the school development plans.

The future

They will offer learning walks to other early years setting including PVIs to help them to see less is more in relation to children with ASD.

Staff requested even more training on ASD as they found the sessions they did to be very impactful.

“We hope to offer a whole day inset to develop their skills further.”
Case study 3: Camelot Primary School

About this school
Camelot Primary school is mainstream setting awarded a ‘Good’ inspection rating by Ofsted in January 2018. Out of 360 pupils in the school, 15 pupils have a diagnosis of ASD and many more are at risk of ASD due to social communication difficulties and emotional regulation difficulties. Almost a third (30%) of pupils are eligible for free school meals. This school has seen lots of change with 8 Headteachers in 9 years. It is now wanting to develop a more nurturing school.

Driver for innovation
While, in the classroom setting, pupils with diagnosed and undiagnosed needs have higher levels of wellbeing most of the time due to the collaborative support from the Autism Support Team and Speech and Language Therapy. It was clear, however, that their levels of well-being were significantly lower during unstructured times of the day, such as, play time, lunch time and out of class transitions.

- High levels of ‘red’ behaviours logged- Vast number of pupils therefore being sent into SLT office from the playground.
- Children unable to emotionally regulate during play time when engaging with other pupils and when play time ‘finished’ pupils were not feeling calm and ready to line up.
- Pupils were still in the ‘yellow zone- fizzy and busy’ and many in the ‘red zone- strong feelings’ going back into class which impacted engagement and participation in learning during afternoon sessions.
- Pupils finding the expectations of lining up and walking calmly from play to the classroom very difficult.

Research question
How can we improve the well-being of ASD children outside of the classroom provision?

What approach did they take?
“Research tells us that for a child with Autism the world can feel like an unpredictable place, therefore, ensuring that the environment, activities and people are as predictable as possible can support them to feel in control, secure and happy.

At Camelot pupils with ASD have clear systems in place to support active engagement, routines, emotional regulation, structure and boundaries in the classroom. However, we identified embedding these systems and strategies for when they are outside the classroom particularly during whole school transitions and unstructured times as a key area for development.
Our project involves pupils on a whole school level and, therefore, a project on this scale takes careful planning and time as well as whole school 'buy-in' from all staff members. We have therefore, drawn upon, research explored in our NASENCo course linking the work of Kotter and Knoster linked to whole school change.”

<table>
<thead>
<tr>
<th>Strategy/Adjustment</th>
<th>How were they implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use and engagement in play activities</td>
<td>Support staff training – thinking about language use and being proactive and fun to engage children in activities.</td>
</tr>
<tr>
<td>Camelot Walking Code</td>
<td>Visuals created on widget and placed around the school for pupils to access during transitions e.g. corridors and stair cases. Whole staff training on consistent language and agreed transition expectations of pupils. Senior Leader observed and supported staff every lunch time.</td>
</tr>
<tr>
<td>Zones of Regulation</td>
<td>Working with Speech and Language Therapist focusing initially on SEND pupils with ASD and language/communication needs – now in the process of being embedded throughout the school through staff training.</td>
</tr>
<tr>
<td>Zoning the playground</td>
<td>Support staff directed to set up activities in consistent zones around the playground. Equipment and play resources made readily accessible.</td>
</tr>
<tr>
<td>Calm Play area</td>
<td>During lunch time play opportunities offered for drawing, small world construction in a smaller, calmer space.</td>
</tr>
<tr>
<td>Staggered transition support</td>
<td>Pupils finish play a year group at a time. Individual pupils given a sand- timer to assist them in taking out 5 minutes before they re-enter the classroom for additional calm-down time.</td>
</tr>
</tbody>
</table>

Impact & outcomes

Learning behaviours

- Pupils are identifying their emotions and communicating them to adults using language and visuals on the playground and visual lanyards to support this.
- Pupils are seeking mutual regulation from staff or are more equipped to self-regulate when needed e.g. coming into the calm play area, taking time out of the game.
- Pupils are interacting more positively with each other and engaging in activities with their peers and staff on duty.
- Pupils transitioning with increasing independence using the visual support to predict expectations (Camelot Walking Code).
- Reduced ‘red’ behaviours logged.

Staff have commented that:

“I have really noticed the difference in the way child X comes into class from play time in a much calmer and settled way.” (Class Teacher)

“Because of all the consistent visuals around the school I can prepare child X when we need to change our routine or leave the classroom. This gives him a warning so he can handle the transition and it doesn’t impact on his work because he has become overly excited or confused” (TA)
Progress and attainment

- More pupils ‘checking in’ in the ‘Green Zone- Calm and Ready to learn’ after lunch time this having an immediate impact on pupils engagement and participation in learning opportunities therefore making good progress.
- Whole School data shows improved learning behaviour is impacting learning and progress from baseline.

Impact on parents

“The project has been a part of developing and re-building over time many broken down and difficult relationships between Camelot and parents.”

- The positive impact that this project has had on pupils’ engagement, integration with peers at play times and transition times as well emotional regulation means that parents are getting more positive feedback about their child because they are happier. This feedback is reported back to parents through informal daily dialogue, communication books, TAC meetings and annual reviews.

One parent commented:

“Thank you so much, he is so much calmer and happier coming in. He used to be scared but now he’s not scared. He’s quicker in the morning now, it’s much easier for me.”

Wider school impact

- Staff find they have the time to eat their lunch as they are no longer having to manage pupil behaviour at lunch time.
- Whole staff buy-in through support from Head teacher and through regular staff training.
- ‘Red’ behaviour incidents have reduced across the school

However, have experienced challenges in respect to training support staff to use consistent language with pupils; they still need regular reminders and modelling. There have also been difficulties prioritising this project over teaching and learning.

Progress towards answering research question

“We feel we answered the research question and the project linked directly to an area of development that we needed to address. We feel that we have improved the well-being of pupils with ASD during unstructured times of the day and in the process this has further supported pupils with SEMH needs and speech, language and communication needs.”
Lessons learnt

For other schools

- Make school environments as predictable as possible for pupils - using consistent language and visuals (inside and outside the classroom).
- Don’t assume that pupils know and understand how to walk calmly - set the expectations clearly on how to transition and move around the school so there are clear boundaries.
- Encourage staff consistency in language use and strategies in place.
- Whole school ‘buy in’ from all staff members takes time – persist with reminders and modelling to encourage all staff to participate.

Personal learning

- Confidence to keep going even through setbacks!
- Importance of doing one thing at a time and making small changes - no knee-jerk decisions.
- Reflecting on small changes before making next steps

Engagement with research

“Camelot Primary school is very engaged with research and this project is part of that outlook (especially through SLTA, NASENCo, SCERTS).

We have seen a number of positive outcomes across the school due to our engagement with research. We actively engage in research based ideas, strategies and approaches to base all of our decisions which are reflected in our policies”

The future

It was felt that this is an ongoing project, ‘its never finished’ and the school intend to continue to embed the current changes.
Case study 4: Charles Dickens Primary School

About this school
This school is a mainstream primary school awarded ‘outstanding’ by Ofsted, first in 2008 and again in January 2011. Almost a third (29%) of pupils are eligible for free school meals.

Driver for innovation
This project wished to focus one child in Year 1 diagnosed with autism who was very isolated socially, had extremely little expressive language, usually communicated physically and was resistant to adult direction (preferring self-directed behaviour). He originally couldn’t be with other children and they wouldn’t go near him. This child had made very little progress throughout the Autumn term and previous year in Reception.

Research question
How can we enable children with Autism to develop expressive language?

What approach did they take?
“We wanted to improve their wellbeing, for them to be happier in school and have teachers know better how to support them. We saw expressive language as at the route of it.”

- Use of recent research helped this member of staff to identify the importance of developing expressive language in underpinning development in all areas of learning.
- Used Autism Education Trust Progression Framework to develop an idea about what expressive language might involve.
- A visit to Redriff primary school helped to identify provisions that support development of expressive language. There they observed assisted language stimulation (ALS).
- Also undertook research and reading on the use of visuals to support language development

As a result of this research Charles Dickens primary school:
- created activities and resources to run groups similar to those seen at Redriff. For example, they developed a communication board with images on that helped the pupil to communicate and begin to support them with their verbal sentence structure.
- Originally sessions were delivered once a week but this was increased to daily (10-15 minutes) to further support impact.
- Targeted intervention groups developed to deliver high quality, evidence-based provision for child(ren) with autism.
- Groups were designed around child’s interests and physical ability.
Impact & outcomes

Learning behaviours

- The groups have developed in effectiveness through frequency and confidence of the adults delivering sessions.
- The data shows a ‘huge uptrend’ in the number of independent, verbal and physical communication attempts with other children through use of ALS board.
- The focus child is significantly happier in school as a result of appropriate challenge and opportunities for social interactions.
- More positive interactions with other children causing others to be more likely to be confident to be around target child when in the playground etc.
- Target child makes more interactions with other children. Guiding them through his communication board, for example, has increased his confidence.
- More engaged with adult led activities generally
- Less defiant
- Other children interacting more with target child
- The pupil is secure in almost all the areas of the Autism Education Trust Progression framework now, green or amber if you RAG rated them

Progress and attainment

- Little impact on attainment thus far though progress in expressive language has developed. He is more communicative and more responsive to prompts in social interactions.
- Teachers, lunch time staff and TAs who only know the target child through brief encounters around the school have all talked about the enormous change is his behaviour, attitudes and happiness in school.
- To evaluate they asked staff member to audit what he was doing (tick box, independent or adult prompted). At start this audit showed no communication with students but by March they were starting to see that he was doing so slightly more and starting to acknowledge presence of other students. In May they stopped measuring interaction with adult as doing that a lot less since he was now showing more interaction with pupils.
- Objects and subjects have different colour coding on the communication board helping him to understand the structure of sentences. The teacher therefore believes this is also helping him to start developing his writing skills.
- Recognise that progress with another pupil has been slower "so it’s not a silver bullet for everyone."

Impact on parents

- Parents report that target child is more engaged at home and more communicative with them at home.
- Parents have been massively supportive of the process – they have reported a marked improvement in his interactions and alertness at home. They can see he is more engaged in school and how he interacts with children and adults in the school.
- At baseline parents thought this was last chance at mainstream school. Now parents very happy to keep him in school.
Wider school impact

- On the success of the groups, they have included more children in the groups who we have identified that would potentially benefit from the model.
- They have trained two additional TAs on how to run the groups to develop their own communication boards for pupils with ASD or communication difficulties.
- They have embedded colourful semantics (underpinning structure to ALS boards) to KS1 literacy to make links between the groups and writing activities.

Progress towards answering research question

“We feel we have found a very powerful way to approach the problem posed in our question. We hadn’t expected to find something that would have such a deep impact and thought that he would find it more difficult to access and learn the routines and structures. We never really recognised just how unhappy our target child might have been at school.”

Lessons learnt

For other schools

- The impact and power of ALS in developing expressive language
- Very inexpensive provision to run
- Useful to personalise the communication boards to the individual pupil (this pupil was interested in transport for example).
- Easy and simple
- Impact is wide ranging – not simply speech and language but social interaction, cohesion, confidence and wellbeing.
- Give staff ownership of developing the communication boards; it helps to get them on board.

Personal learning

- The realisation of the impact of developing expressive language on the wider development of a child.
- It’s important to consider the happiness and wellbeing of children with autism and the impact that the way we structure lessons and activities has on that.
- Many interventions including this one don’t need to be high tech or expensive – just simply well run, frequent and evidence based.

Engagement with research

“Absolutely [this project has affected attitudes towards research and/or the school’s engagement with research as a professional development tool] – we’re very excited to take part in more research. This has been a very steep but exciting learning curve. We feel we have just scratched the surface of what we could achieve.”

The future

Plan to continue with this approach and extend its use to more children.
Case study 5: Prendergast Primary School

About this school
This school is an all-through mainstream primary school and was awarded a ‘Good’ Ofsted grade in February 2019. The proportion of pupils with SEND is slightly above the national average. The school is part of the Leathersellers Federation of Schools.

Driver for innovation
Staff had concerns about the emotional outbursts of a male pupil in year 3 (the focus pupil). This was having a significantly negative impact on his progress but particularly in writing. The pupil does not like to make mistakes so when things go wrong, he finds it difficult to self-regulate and can escalate from a point 1 to a point 5 quickly and it would be difficult to support him or calm him down.

The focus pupil was chosen as a focus child as he was having many emotional outbursts that were having a negative impact not only on his learning and wellbeing but also on the wellbeing of his peers in the class. He was also finding it difficult to make good progress, even though he is an able and articulate learner. The focus pupil has very low self-esteem and often talks himself into believing that he is not good enough to perform well in tasks.

The class teacher and other professionals working in the school aimed to become more reflective about their practice and how they can best meet the focus pupil’s needs. They thought about **how he learns** and **effective strategies** of providing support to enable him to achieve within his own abilities and potential.

Research question
How can we reduce the number of emotional outbursts?

What approach did they take?

- Focusing more attention on the focus pupil’s sensory profile gave some insight into the focus pupil’s needs. An audit of his sensory needs was carried out to better understand how to support the focus pupil.
- As well as focusing on recent research into autism, they also commissioned professional support from ASD specialists (Drumbeat) who carried out an assessment of the focus pupil’s needs. Drumbeat provided a thorough assessment of the focus pupil’s needs and recommendations were then made to support the focus pupil with his emotional regulation. These recommendations have been highlighted and written into a personal IEP which are being actively used to ensure that the focus pupil is getting the support and help required based on professional advice.
- The first point of action was to carry out a baseline assessment to better understand when the emotional outbursts were happening and if there was a set pattern. They found that the focus pupil’s emotional outbursts were erratic and did not follow a set pattern.
One area that was highlighted as a result of the baseline was difficulty around transition from one space to another, finding it particularly challenging to move from breaktime back to the classroom for morning learning and then again at lunchtime play to the classroom.

It was the unpredictable nature of the focus pupil’s response that has made it very difficult to find a solution in supporting the focus pupil at these times. Strategies that have been used consistency have not always worked as the focus pupil’s emotional response is erratic.

The focus pupil was getting progressively worse and so they sought professional advice from an educational psychologist.

The EP was able to review actions from the previous visit and suggested applying for an EHC to support the focus pupil in a small group setting as small group work was having a more positive effect on the focus pupil’s ability to take in new information and learning new skills. This was proving to be more effective than a whole class setting. Other changes made included:

- a short activity to carry out so that he is away from the main class and has time to self-regulate
- social stories to teach the focus pupil about self-regulation, that it is okay to lose and not win all of the time, about fairness
- providing the focus pupil with visual support (5-point scale, visual timetable) so that he is able to clearly identify his routine.
- sensory circuits allowing the focus pupil to reduce sensory overload and get physical.
- occupational therapy support focusing on his fine motor control.
- ‘Drawing and Talking’ sessions to give the focus pupil the opportunity to reflect on his emotional and physical reaction to situations. Discussing his reactions reflectively has given the focus pupil the chance to explore the reasons for his explosive responses.
- Lego therapy
- Handwriting support

Impact & outcomes

Learning behaviours

- Whilst the focus pupil is unable to control his escalated behaviour at the point at which it is happening, he is getting better at talking about the situation when he is in a calm state and can identify the behaviour. He still finds it a challenge to identify the trigger.
- Lego therapy has been an effective therapy as the focus pupil has learnt to support other children in the therapy sessions instead of getting frustrated with them for not following instructions. He has more empathy for others and can reflect on how his behaviour can have a similar effect to the pupils in the Lego therapy group.
- the focus pupil now finds it a bit easier to read his own writing once he has written it down. This means he gets less frustrated once he has completed a piece of work within an English lesson.
- Behaviour after the social story sessions:
  - His behaviour has improved and there have been far less emotional outbursts on the whole.

Evidence was taken from baseline data (tracking of emotional outbursts) comparing data from the start of the school year with toward the end of the year. Regular notes were taken from parents, teachers and the focus pupil himself.
Leuven baseline assessment (in October 2018) for engagement showed that the focus pupil was scoring 4 or 5 for engagement (with 1 being ‘distracted’ and 5 being ‘integrated for short periods’) for 79% of his sessions. By June 2019 this had risen to 88% of sessions. However, he was less likely to score a 5 after the intervention than before it.

Progress and attainment
Scores have improved as follows:

<table>
<thead>
<tr>
<th></th>
<th>Autumn Term</th>
<th>Summer Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>29 (beginning of year 3)</td>
<td>33 (securing year 3)</td>
</tr>
<tr>
<td>Writing</td>
<td>17 (beginning of year 1)</td>
<td>27 (securing year 2)</td>
</tr>
<tr>
<td>Maths</td>
<td>30 (beginning of year 3)</td>
<td>33 (securing year 3)</td>
</tr>
</tbody>
</table>

Handwriting has improved immensely. At the beginning of the year the focus pupil couldn’t read his own writing but now his writing is more legible although more work in this area can be the focus of his next targets. This has given the focus pupil more confidence in English lessons as he can see the difference in his written work, the focus pupil’s attitude used to be quite negative towards English and beginning stages of starting tasks but it is now much more positive.

Having the support from a TA and ensured that the focus pupil is able to stay on task, complete work and then move on to his reward.

Impact on parents
- Regular meetings take place informing mum about the focus pupil support sessions. The sharing of information has been very effective, especially when mum told school about the focus pupil’s behaviour at home where he was self-harming out of frustration. Open communication meant that home and school could work together to tackle important issues.
- Mum was supportive of the project keen to find out what the focus was and wanted some support as the focus pupil has emotional outbursts at home too
- The family are continuing to apply school strategies to support the focus pupil at home.
- Supported the school in getting an Education Health Care Plan Needs Assessment

Wider school impact
- Delivered AET whole school training – shifting perception of autism as ‘difficult’ behaviour.
- Influencing whole school practices – ensuring that all ASD children have a sensory assessment/checklist as well as pupil voice. All ASD children have had a say in how they would like the sensory room to be used.
- The sensory room is being refurbished and children have made better use of the space. Parents have been involved in the creation of the room.
- The school took part in National Autism Awareness Week – all stakeholders took part and this has helped to raise the profile of autism in the community. Money raised is being used to buy much needed resources for the sensory room.
Progress towards answering research question

“Yes we did support the focus pupil in controlling the number of emotional outbursts he has, but he will continue to have them”

“In reality we cannot reduce the focus pupil’s emotional outbursts, but we can support the focus pupil in dealing with self-regulation and working towards de-escalating from point 5 to point 1 more quickly than he has been in the past….It is not always clear what triggers his outbursts but the focus pupil is getting better at talking through those feelings felt during the outburst with hindsight.

There is no quick fix solution in supporting the emotional well-being of a child with low self-esteem, especially in a young child with autism. Nurturing emotional well-being is not the job of one person alone (teacher, TA, professional, therapist), it is the job of many.”

Lessons learnt

For other schools

- Take every child with autism as an individual case.
- Take time to get to know your pupils and their families, families might be struggling just as much as the school setting in knowing how to support their child in the best possible way and vice versa.
- Seek support from professionals who have experience in advising on ASD – teachers should not feel guilty if they have a lack of knowledge but schools should provide support and advise to better equip teachers.

Personal learning

“I have learnt new strategies to help me work with the focus pupil in the classroom. I have put into practice different ideas and the staff meeting training I received has helped me to draw on perceptions of autism and helped me to be more effective when working with the focus pupil.” (Teacher)

“I have learnt that communication between home and school is vital in getting a clear overview of a child with autism because how children perform at school can greatly differ compared to performance at home and vice versa. I have also learnt that research around autism changes a lot quicker than we might think and so having close working relationships with professional agencies such as Drumbeat is vital in ensuring that the most up to date knowledge is shared to ensure that we are providing effective strategies for dealing with autism.” (School Leader)

Engagement with research

“Collecting data both qualitative and quantitative has made us think very carefully about what answers we were trying to find to particular questions. By carrying out action research, we were actively finding solutions to evidence that was being collected from real situations.
When one thinks of research, university academic researchers comes to mind however, this research was carried out by teachers actively working with the children who were the focus of the study. In essence, this project has shifted the perception of what research is and who can be responsible for gathering and synthesising the data to find solutions and answers. In this lesson, we have learnt that we do not have to rely solely on theory based research carried out at university (although thoroughly researched educational theory is both useful and quality assured) and that research carried out in schools based on real life situations is just as important in trying to find solutions to overcoming barriers to learning.

We would like to conduct similar research to support better understanding of other aspects of learning in school so that we can ensure that changes to improve school life is based on need."

The future
An Education Health Care Plan Needs Assessment was accepted and the focus pupil will now have funding to provide him with small groups support. This is a positive outcome as the school have exhausted service level agreement and didn’t have the capacity or funding to support the focus pupil’s needs consistently.
Case study 6: Redriff primary school

About this school
This school is a primary Academy run under the City of London Academies Trust. Around 13% of students are eligible for free school meals and they have a specialist resource provision for students diagnosed with ASD.

Driver for innovation
The focus pupil had recently started at the school, entering Nursery in September without any previous setting experience. She had recently received (July 2018) a diagnosis of Autism that affected her communication needs, social skills and sensory regulation.
She initially showed no signs of an awareness of others, and was not able to manage her own safety whilst at school. She understood that adults were there but did not know how to interact fully with them or other children. The focus pupil used gestures to express her needs or wants but these were sometimes difficult to interpret.
During free-flow (play) she chose activities independently but was a little erratic in her choices and did not remain at any activity for a sustained length of time. During carpet time or lunch time (non-negotiable) she was not willing to participate or even remain in the same area. The focus of the research would help to inform future provision for the focus pupil and any other children that may need similar support.

What approach did they take?
- Through training and discussions with the SEND team, the focus pupil’s class teacher had learned that visuals (including Makaton) were a particularly important feature of provision for children with communication difficulties.
- The teacher also spent time focusing on the research behind routines and repetition and brought that into carpet times, making sure to do the same introductory five minutes every day. This helped the focus pupil to always be able to participate in at least the first part of the carpet session and for her to feel comfortable with that.
- Initially, the plan was to introduce the focus pupil to a choice board, which she could use during free-flow. After observing her during free-flow however, she demonstrated a good ability and willingness to be able to choose where she wanted to play, and took control of her play within the first few weeks. The focus therefore became the non-negotiable parts of the day. Using a ‘Now and Next’ pouch, the day was explained visually with the non-negotiable times emphasised, for example, carpet time and lunch time (see figure 1 below).
After the focus pupil was observed by a member of the Southwark Autism team, there were recommendations to introduce carpet time in small amounts and to remove the focus pupil before she became distressed so that she would not think negatively about non-negotiable activities.

- the focus pupil received 1:1 support with a consistent adult as well as additional support from her teacher. She has developed a great relationship with both adults and is always very excited to see them in the mornings.
- the focus pupil has weekly sensory activities with a small group and daily time in the sensory room, which she finds very calming and allows her to meet her sensory needs in a quieter environment.

**Figure 1: Examples of visual prompts**

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**Impact & outcomes**

**Learning behaviours**

- It had seemed like a huge challenge at first to even get the focus pupil to agree to join the group for carpet time, but slowly she began to become excited about it.
- Over the course of the year, they observed a lot more willingness to participate actively in the sessions, especially at the beginning of the sessions, as this was the most repetitive part (see figure 2 below).
- It is clearly visible on a Monday morning when she enters the classroom how excited she is to be there.
- She has become accepting of carpet time, and joins in with the first part of the session with minimal support. She is able to sign as she sings along and even responds to the signing by the teachers and other children.
- The other children know what to say to her to help with her behaviour.

**Figure 2: Level of engagement in (non-negotiable) carpet time**
Progress and attainment

- Using the speech and language methods learned through training and through her Mum also being on board and continuing the process at home, the focus pupil has made tremendous progress. From her baseline to now, she has made at least three steps progress in all areas of learning and has gone from a single phrase; “say bye-bye” to using sentences, such as “want to go outside”.

“In my opinion, the main reason that she has progressed so much is because she has been allowed the freedom to make her own choices outside of the non-negotiable times. She understands there is a routine that has to be followed, but also understands that she has been given autonomy over a lot of her day. This allows her to explore and make her own mistakes and challenges where she feels like she is in control of her learning.” (class teacher)

Impact on parents

- Mum receives support from the SEND team with monthly ‘Tea and Talk’ sessions where she has an outlet to discuss challenges and talk about positive outcomes. She always speaks very highly of the time given to her during these sessions.
- Mum has commented to various individuals how happy she is to be at school, and she talks about it when it is the weekend telling her “want to go school.”
- Mum shared with the Educational Psychologist, that ‘she is really pleased with the focus pupil’s progress since joining Redriff, she told me, “she is doing so well, I can’t ask for a better school’.
- As mum has become more understanding of the focus pupil’s diagnosis and what this means for her specifically, she has taken on board all the advice she has been given and uses methods she has been shown in the home environment.

Wider school impact

- As the Nursery environment is structured differently to the way the rest of the school is structured, the wider school impact is a little difficult to focus on.
- The use of visuals and Makaton across the whole school is, however, something that is highly valued and utilised in every classroom. Through using them with the youngest children, many of the EAL children have also benefitted and have begun to use signing to express themselves.
- As a whole team in Nursery, I think that the teachers and support staff have become a lot more aware of the need for signing and visuals in their practice and how great an impact it has for lots of children.

Progress towards answering research question

“At first, I believed that structuring all parts of the day for the focus pupil would help her to follow that structure into the non-negotiable times such as carpet time, but in reality, after observing her and getting to know her, I realised that her engagement during free-flow and her willingness to engage during carpet time were separate in her mind. This then led me to focusing solely on the Now and Next symbol and picture system and make sure that she understood the parts of the day where, to some extent, she had to handover choice to the teachers.
Working then on her willingness to do that, as well as making the carpet times as accessible and motivating for her as possible by using lots of tactile, real objects, so that she got excited by the idea of carpet time has helped her to be more tolerant of the lack of free choice in these moments."

Lessons learnt

For other schools

- The importance of visuals and consistency with visuals ‘cannot be expressed enough’. All children respond positively to visuals, but those that need help with communication can use the symbols or Makaton to express themselves, which is so valuable.
- Having a ‘Now and Next’ system, with pictures and symbols on is an easy but very beneficial method to introduce and keep the consistency of a routine.
- Allowing free choice has created a greater acceptance in the focus pupil with the non-negotiables. She has increased the areas she explores in because she has not had any limited choice given to her during free-flow.

Personal learning

Teacher:

- Importance of establishing a routine.
- Importance of visuals and consistency with Now and Next.

School leader:

- what training to give to other/new teachers on visuals and experiences of teaching with ASD.

Engagement with research

“Research can seem overwhelming and sometimes very subjective, but this can be used as a worthy starting point to find out more about specific points of reference. It is often more about how a topic is presented over the topic itself, so reducing research down into manageable chunks can help individuals, which in turn can help a whole team. Moving forward it would be good to have phase meetings to discuss a piece of research every half-term/term. This could be a good opportunity to raise the profile of SEND and inclusion within the school.”

The future

The school plans to continue using the methods learnt through the study.

This focus pupil will now move on to mainstream reception class due to the success of the project.
Case study 7: Robinsfield George Eliot Federation

About this school
A recently federated partnership of two schools; one infant, one full primary. Schools are very culturally diverse, and very different in terms of catchment and current priorities. There are 13 children with a diagnosis of autism across both schools.

Driver for innovation
Teachers have different levels of autism knowledge. A focus for both schools has recently been ‘communication-friendly’ classrooms.

The target pupils were initially at least one child per year group with an autism diagnosis. But as they condensed and focused their study, they decided to create a case study of two children in year 1 with similar behaviours. Both prompted concerns over observed behaviours e.g. heightened anxiety and poor relationships with teachers.

Initially they aimed to look at look ‘autism friendly classrooms’. They asked staff to fill out a questionnaire explaining their experiences of autistic children that they had taught. Through a thematic analysis of responses they established that some teachers had used more negative language when answering the questions and KS1 teachers had not mentioned relationships at all. In discussion teachers displayed a lack of confidence and knowledge is supporting specific children and could not talk confidently about the child’s particular needs and interests outside of what they perceived as ‘challenges’.

Research question
What impact will making classrooms ‘autism friendly’ have on the relationships between staff and children with a diagnosis of autism?

What approach did they take?
Their research focus was made more specific as they collected data and learned more about the areas within their schools that needed working on. They undertook the following tasks:

- **Staff skills audit** – Responses focused on resources and general strategies and a lack of reference to relationships identified. Responses were very general and not child-centred
- **Developed a broad research question around relationships.**
- **Sent out teacher questionnaires** - A thematic analysis of responses showed that year 1 teachers used overwhelmingly negative language to describe the children with ASD. Results also showed that EYFS teachers used overwhelmingly positive language when writing about the children in their class with a diagnosis of autism (See figure 1 below). Responses were more individual and displayed a high level of personalised provision being delivered.
Refined research question based on questionnaire analysis

Narrowed down sample size based on questionnaire responses to 1 year one child in each school

Met with Year 1 teachers to discuss responses and ask them what they needed to support their relationships with the child. Both children had a range of complex needs which class teachers were finding difficult to manage, eg. non-verbal, sensory seeking. Alongside this, teachers were new to school and the children had recently made transition from EYFS to Year 1.

As result of this research:

- Interventions identified:
  1. weekly slot to observe/interact with child in EYFS.
  2. Discuss and plan provision for the child with EYFS lead.
- Teacher from EYFS paired up with a year 1 teacher to assist in planning and provision, especially in relation to sensory needs and planning around a child’s interest across the curriculum
- Teachers of identified children attended annual review (this had not happened before)
- Teacher of identified children had 2 x 30-minute sessions blocked out to spend observing their child
- Teachers, support staff and EYFS leads planned together for the identified children
- More focus on child led and sensory provision based on teacher observations of children
Impact & outcomes

Learning behaviours

- Opportunities to observe children lead to more inclusive practice – Case study children were able to participate in whole class learning for longer
- Teachers remarked that the case study children were less distressed when their 1:1 left the classroom and were more likely to approach the teacher to get their needs met
- Sensory experiences were built into class planning for all children e.g. dough disco, which meant case study children were able to spend more time in the whole class environment.
- Teachers felt this was due to building a bond based on blocked out time for observation and play with the child.
- Inclusive practice – child led learning experiences more available in the classroom

One teacher reportedly told staff:

“I feel as though I have a better understanding of [the pupil] and his needs. I now understand his capabilities, likes, dislikes, strengths and weaknesses. He is now able to spend time with me 1:1 where as this was a struggle at the start of the year and his LSA needed to be present at all times. [the pupil] is now comfortable to spend one on one time with me and engage in activities.”

Impact on parents

- During meetings and annual reviews, parents have commented on how well they think the teacher and LSA is aware of their child’s needs.

Wider school impact

- People feel more confident to ask for help.
- Referral forms to the SENDCo have increased (especially where ‘autistic traits’ have been identified)
- Planning for next year – able to plan in the cross-phase shared planning for the transition between EYFS and Key Stage 1

Progress towards answering research question

“Yes – on the small scale of our research parameters, it made a difference to the two teachers and children involved”

Lessons learnt

For other schools

- If a school did not have experience of a non-verbal autistic child of that age and developmental stage they could learn about different ways of assessing
- Identifying and utilising expertise that already exists in the school
**Personal learning**

- Exposure to a different key stage and transition point and the challenges this poses
- Non-verbal learners
- Leading a project across 2 schools
- Motivating staff who started with a ‘negative’ outlook
- Keep it small
- Knowledge of different assessment methods (non verbal) – observation, Leuven Levels, discussion with professionals.
- Developing teaching toolkit through building relationships based on a child-led approach to learning

**Engagement with research**

- All staff were engaged and open to the research initially. There has been little change as staff were used to this approach.
- SENDCo and a teacher from each school are planning to undertake a further research project into autism, girls and EYFS
- A number of staff meetings have a recent research element to them already, so teachers see the link between their practice and up to date research

**The future**

- Autism Champions in either school to support less experienced teachers.

- Build in 1-1 sessions with children from September so it is a priority from the start of the year
Case study 8: Southwark Park Primary School

About this school

This school is a mainstream primary school, awarded a ‘Good’ Ofsted rating in June 2018. 15% of pupils are eligible for free school meals.

Driver for innovation

Our study focused on two children in Year 3, child A and child B, who are both autistic. Child B has significant delay to his speech and his understanding both of the speech and the actions of others is limited. He has an EHCP and joined Year 3 unable to blend phase 2 phonics sounds. Child B is eager to engage with children and adults. However, during a baseline observation in the playground it became apparent that he finds it hard to sustain that engagement for more than a couple of minutes, and he rarely uses words as a way to communicate his meaning to others in unstructured environments. Child B speaks English as an additional language and has received S&L interventions since reception.

In contrast, child A has an excellent vocabulary. He has a reading age of 13 years 3 months and a spelling age of 9 years 11 months. Child A’s primary area of difficulty is with social communication. Child A struggles in any situation where he has to work with other children. At play time he always chooses to play independently and in golden time chooses to read rather than interact. Friendship groups had been tried in the past with child A but had had little impact.

During baseline observations, he had outbursts of anger both when others got things wrong and when he himself made mistakes. When asked about his strategy for dealing with anger in Autumn term, he replied ‘I just wait for it to go away’.

Research question

To what extent can Lego Therapy help autistic children develop transferable social and language skills?

What approach did they take?

What informed their approach?:

- Child B is very motivated by rewards and often chooses Lego, so Lego Therapy seemed a good fit for him. He often struggles to understand the point of learning, so attempting to build a Lego model has a clearly understood goal.
- Research that staff were exposed to during this project increased their understanding of the needs of autistic pupils, and led to them tailoring Lego Therapy individually to child A and child B’s needs in order to reach their targets.
• Staff were also introduced to the concept of a learning triad as a way of providing models of good speech and interaction to target children. This was their starting point, which lead quite naturally to Lego Therapy.
• They read research and literature around Lego Therapy to understand the theory behind it and its different applications.
• Choice boards were also used as a way of supporting language development in both of our target children. Finally, they were introduced to the Autism Education Trust’s progression framework and have used this to set targets and measure outcomes, not only for the target children in this project, but for several autistic children across the school.

The intervention

• Child A was given a one-day model, comprising of one 20 min session with two neurotypical peers. One was someone child A was comfortable and another child was selected for being calm and tolerant.
• Child B was given a two-day model, with a pre-teach session with his class teacher followed by a Lego Therapy session with two peers, chosen from his friendship group. They also had some issues (with attention and impulse control) so we were hoping they would also benefit from the session.

Impact & outcomes

Learning behaviours

Child B:

• Since January, child B has faced challenging circumstances out of school and his attendance dropped below 76%, with 40 incidences of lateness across the school year. This means that child B’s behaviour both in and out of the classroom has been very erratic. It is therefore not practical to make strong links between child B’s learning behaviours and the Lego Therapy sessions.
• However, in sessions, child B’s ability to listen to the other children developed, and he seemed to understand that they needed to work together to achieve the goal. At the start of sessions, child B would not wait for instructions when he was the builder, but this improved over time. Child B also started to ask questions, first to seek confirmation that he had completed his task correctly, and then to get extra information about the task he had to perform. Crucially, he also listened to the response. He was able to take turns within the structured environment of Lego Therapy.
• In his most recent review by the Speech and Language Therapist, she found child B “has made significant progress in the amount that he says to others” and he is “able to narrate an experience he has had.” She also found that child B has “made progress in his use of language and vocabulary” and “sees himself as a learner.”
Child A:

- Since the start of the Lego therapy sessions, child A has talked to his parents about children he’s played with and his “friends” for the first time ever.
- A review of the AET framework targets shows child A is either developing or is secure in all nine of the targeted skills. Importantly, child A is more aware of his own emotions and now has strategies for calming down. He said in June that he should “try to not let my emotions get the best of me”. When asked if he uses the things he learns in Lego Therapy in other areas of his life he replied “Yes, I try to.”
- In class, child A is quicker to recognise his own anger and can tell you some ways he could cope with it. He is also more willing to work with the children who do Lego Therapy with him. Other children have given child A compliments on the resilience he has displayed in Lego sessions, and child A complimented himself for controlling his anger better.
- Child A is more comfortable accepting correction when he’s got something wrong, and will now edit his work.
- When child A’s behaviour outbursts were tracked at the end of the summer, there was a notable change from the baseline tracking.

Progress and attainment

- As child A is working in Greater Depth at the Age Related Expectations in all areas, this was not a focus for development for him. His learning was all social and behavioural.

Impact on parents

- AET targets were chosen in consultation with parents, at the same time as they completed the baseline interview for our project. This allowed us to target the intervention effectively.
- For child A a social story was sent home to explain about the start of Lego therapy. We shared the outcomes of the sessions with parents, in order to provide a consistent approach to dealing with frustration caused by communication issues.

Child A:

- Child A’s parents have reported that “he’s regulating his emotions at home much more […] If things do go wrong, he can reflect on them afterwards and it means we can pick him up on things as we know he’s not going to lose it – so much more positive than before.”
- She’s also noticed him talking about other children at school, using their names, rather than just the tasks he has been doing. As a parent, she has found the project interesting; as she knew the sessions were taking place, it made her notice and pick up on similar behaviours at home. He also spoke to her about the sessions.

Child B:

- As child B’s home circumstances have been very disturbed recently the school didn’t feel it was appropriate to do an end of project interview with her. While they do keep good contact with mum, the focus has been on building child B’s attendance and helping her manage his behaviour at home.

Wider school impact

- This has been a small-scale study but they will be delivering a version of the case-study PowerPoint to the whole staff during inset day at the beginning of next year.
Progress towards answering research question

“Our project has shown that Lego Therapy can help build autistic children’s social and language skills, and we are beginning to see some transferability of the skills. However, that has to be built on over the next year at a school wide level, such as further available prompts for when things are tricky, overt teaching of listening skills and designated roles in group situations.”

Lessons learnt

For other schools

- Think about the set-up of the resources: they need to be easily accessible, sorted out and stored in order to make sure the interventions happen. Set up of the Lego resources was somewhat time consuming
- Have clear targets for what you are hoping to develop in the target children
- Think carefully about the other children you include in the group - neurotypical or other children with needs? Friends or not? It will change the outcome of the session, but different groupings will work for different needs
- Focus on the small victories: Lego Therapy will not be a miracle cure but can give the children tools to help them with things they find tricky. Look for the positive changes, even if they are minor.
- Involve parents where possible, particularly when dealing with social and pastoral issues. This not only helped us prepare pupils for the session, but also to assess their impact and make the learning consistent between home and school.
- Think about the logistics of delivery: will the class teacher always be available? It is nice for the class teacher to deliver at least some of the sessions, but have a contingency plan if they are unable to do so.

Personal learning

Teacher:

- “When undertaking research, make it manageable! If it’s too much work it realistically won’t happen. Instead, have a clearly defined, deliverable idea that won’t increase work load.”
- “I learned not to overlook the needs of academically able autistic children. It would be easy to overlook child B as academically he is succeeding. His verbal skills make you think he should understand your explanations or other people’s opinions but this is obviously not the case.”
- “Sometimes other things over take your project and you just have to do the best you can, as happened with child A’s housing crisis, family illness and attendance problems. Sometime the day to day reality of teaching can get in the way.”
- “In order to set up an effective intervention, you may need allocated time to set things up properly.”

SENCO:

- Awareness to not overlook high functioning children
- The Autism Education Trust framework is a useful tool which can track a range of aspects of autistic children’s learning, although it can be unwieldy to navigate and use
• As a SENCO, there is great value in working with children in regular groups, rather than becoming consumed by paperwork and meetings, and losing touch with the children themselves.

**Engagement with research**

• Measuring the baseline and outcomes has been interesting, as has considering the variety of data you can collect (Leuven scale, abc tracking etc.). Some of these tools are being used in other areas of the school, such as tracking all children on the Leuven scale for wellbeing and engagement. This is feeding into how we measure the impact of other interventions in the school.

• Research projects need to be joined up with the overall School Development Plan rather than exist in isolation; you shouldn’t undertake projects just because they are on offer, because if you want the research to have a meaningful impact on practice within the school, it needs to align to the school priorities.

“*Research as a professional development tool seems more time consuming than more traditional CPD, but it does allow the theory to be put into practice straight away. Without the sessions and mentorship, how realistic is it that the projects will be seen all the way through and have rigour? What happens to the results? As a school, these are some of the questions we should consider.*”

**The future**

• In the new school year they intend to extend the use of choice boards to the classroom for both focus pupils.

• In Year 4 they may change the accompanying children to widen their tolerance of other class members.

• They intend to continue the groups with the focus pupils next year, and set up new groups with the new cohort.

• They will need to expand the Lego resources and improve their storage so that they is clear, well organised and able to be used by any member of staff.
Case study 9: Surrey Square Primary School

About this school
This school is a primary Academy run under the Big Education Trust. Almost a third (28%) of pupils are eligible for free school meals.

Driver for innovation
Child A has an EHCP and was non-verbal when he started in Year 1. He was very passive and depended on an adult to assist him with all tasks. In the autumn term he was assessed as being very low on P scales and when asked to repeat words he would whisper them. The concern was around how the focus pupil would access the Year 1 curriculum and how to get an adult to work with him in the way he needed, whilst promoting independence.

Child B did not have a ECHP plan but was below in maths, writing and reading. He was unfocused during whole carpet sessions and would not focus on independent mathematical activities. He would often whistle or hum during whole class teaching sessions. The concern was how to get child B to make progress, focus on his work and complete activities/tasks.

Child C was diagnosed with ASD during the summer before starting Year 1. She would often leave the classroom, shout and refuse to join in with activities. Usually she wanted to make things. She did not respond to use of visual timetables and adults found her behaviour very tricky to manage. She had meltdowns where she would hurt other children and adults and run around the school. The concern was how to have Child C participate in lessons and be safe. It was also a challenge to have adults manage Child C’s behaviour and also to build a positive relationship with her.

What approach did they take?

What inspired their approach:
“The research presented lots of ideas for us to implement within our setting”. This included:

- ASD team training on TEACCH to help them improve the children’s independence.
- Visit to Bessemer Grange Primary School, where they observed the use of a satellite group and visit to Rye Oak – identifying how visuals/TEACCH stations are used throughout the school
- Whole school training on ASD, using information that we received during the course.
- A member of the Autism team came in to observe Child C. She then gave them targets which were implemented. Follow up observations and target setting were undertaken with the same professional.
- Coaching with the lead SENCO at Redriff Primary School
The approach taken:

- Use of consistent visuals throughout the school with the same font (Now and Next boards and class visual timetables). All children are familiar with the new symbols and classes are consistently using the new timetables.
- Implementing TEACCH daily for two of the children.
- Reward charts implemented consistently with shorter success times (due to advice from the Autism team).
- 5-point scale used and referred to with child C – copy shared with parent.
- Child A attends the satellite group daily
- Implemented child A having his own desk in the classroom, away from distraction where there is access to his now and next case with them to refer to all the time.
- Class teacher working with all children and assessing learning – impacted on planning and learning opportunities for these children
- Child B sits at a table with the class teacher for mathematic and literacy activities, has speech and language provisions and phonics provisions.
- Weekly meetings with parents – identifying next steps and reviewing progress made.
- Support given from school re: collecting in the mornings to improve punctuality and attendance
- Provision at lunchtime such as support eating, developing social skills in the playground

Impact & outcomes

Learning behaviours

Child A:
- Child A is following transitions and actions of other children as a cue of what to do e.g. go to the carpet
- Completes TEACCH however does need reassurance.

Child B:
- Child B is able to focus more and stays on task with minimal prompts form adults. At the beginning of the year, child B would not complete any maths without continuous adult support, now he will complete activities after being demonstrated once.

Child C:
- Baseline data of observations, assessment and teacher anecdotes identified child C not engaging in the learning, leaving the classroom and being disruptive (90% of the time). Changes to staffing and providing AM with a high level of adult support has meant that she is focussed and on task the majority of the time (90%).
- The advice from Autism team re: choice has had a positive impact and child C will attempt some tasks when it is on her terms.
- In regards to TEACCH child C did like it and complete activities initially however refuses to do it now as she perceives it as work and not on her terms.
- Initially 5-point scale was successful at identifying and agreeing strategies to use when child C was feeling overwhelmed. Now with limited success as identifying numbers can trigger child C to get anxious and escalate the situation.
Progress and attainment

Child A:
- Child A is now speaking words and will repeat when asked. Developing confidence and positive relationships with the children.

Child B:
- Child B has made ARE in reading and accelerated progress in writing and maths (3 points and ARE is 2). This is due to adults scaffolding what he needs to do. Careful positioning on carpet has enabled him to focus more and participate.

Child C:
- Child C has not made progress this year however EHCP is in progress. High level of need and both parents and school question whether mainstream is appropriate in meeting SEND.

Impact on parents
- Positive relationships developed and maintained. Weekly meetings with AM parent – sensitive information shared and Mum is more forthcoming.
- Consistency of strategies at home and in school e.g. social stories shared

Wider school impact
- Consistency of visuals throughout the school e.g. Now and Next (pencil cases), visual timetables, lanyards
- Darwin provision group daily – one group am and one group pm
- Use of TEACCH
- Enabled to achieve through inset training, preparing resources and a shared vision from leadership.

Progress towards answering research question
“*Yes we did answer the question by exploring different strategies and children working at their ‘own’ level of independence*”

Lessons learnt

For other schools
- Use the expertise from the Autism team
- Visit other schools
- Being open to ideas (others observing and advising)
- Be creative with resources you have
- Invest time – things won’t necessarily happen over-night, once routines are established the level of support might not need to be as high

Personal learning
Teacher:
- Independence can look very different for all the children.
- Understanding and supporting other adults to support children with Autism appropriately

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London South
Teaching School Alliance
• Adapting techniques and strategies to different children who have a diagnosis of Autism
  Leader:
• Not being stuck and thinking through how to be creative with limited resources

**Engagement with research**

“It has been a beneficial project due to the outcomes and wider network of professionals we engage with.”
4. Evaluating the Autism Research Project

Staff interviews

In order to gain a wider perspective on the aims of the project and how the it had impacted on the individuals involved the associate researcher undertook:

- Telephone interviews with two participating teachers
- Telephone interviews with three programme leads and facilitators
- A face-to-face focus group with three senior leaders/SENCOs.

This chapter explores what they told us about the project approach, impact on their professional practice, what worked well and what worked less well.

Project approach:

Programme leads explained that the Autism Research Project (ARP) had been designed to fit a model of Research Learning Communities (RLCs - influenced by the work of Chris Brown1). One reflected that:

“[the RLC model] is really powerful ... it is very difficult for teachers just to look at research and for it to make sense for their context and so to have groups of people to discuss ideas and to mediate research and critically to produce new research through what they do in their own settings, I think that’s a very powerful model.”

This project lead felt this project lent itself particularly well to this model since all the schools were members of an existing community (the London South Teaching School Alliance).

Another of the programme leads/facilitators explained that the research approach had been key to their decision to take part. They said,

“The reason why the course was particularly interesting is because it’s not looking at ‘here is a pre-packaged intervention’ for autism and go and implement it, it was looking at getting teachers and SLs to reflect on what change could they make to the provision for children with autism in their school and I think kind of put a lot more of the onus onto them and that had a lot more of a meaningful impact than ‘come and learn about a specific approach’.”

Another stated that,

I think action research helps schools to implement change. I think it is very easy to say something needs to change but action research is a very structured way of focusing in on the challenge...I think that schools with time pressures, financial pressures, it’s very hard to implement change. So, the research cycle I think supports schools to follow through with planned change.

They also felt their was a real need for CPD in the area of ASD, explaining that,

“I think there is a real variability across schools in terms of provision for children with complex needs and autism and its apparent across all types of school, across schools of different Ofsted rating.... There is a training gap and a knowledge gap across teachers who don’t seem to receive any or any ongoing CPD through things like ITT around autism practice and provision.”

1 See more at https://www.ingentaconnect.com/content/ioep/rfa/2017/00000001/00000002/art00014
Impact on professional practice:

Teachers felt the project had given them an opportunity to spend time outside of their classroom reflecting on the issues they faced. They found it particularly useful to work with a coach (project facilitator) and visit other schools as a further means of reflecting on ASD pupil need and possible strategies. One teacher said it had developed her practice ‘enormously’ as she’d had very little idea of how to support a child with quite severe autism in her class at the beginning of the year. She explained that,

“the course really empowered me to take part in research, give things a try and really figure out the best way to support him and the best way to help him fit into the class”.

Teachers also explained that the programme had improved their confidence when working with ASD pupils. For example, one teacher said, “From Sept I will have three children in my class with autism and I just feel a lot more comfortable and confident”. They also felt that the strategies they had learnt through the programme would be suitable for students with SEMH issues.

School leaders felt that the project had developed their professional practice by giving the gravitas and motivation to move the school forward, it had given them a specific project to work on and build relationships with staff across the school; ‘you can use it as a way to initiate conversations…and allowed people to see you in a different way in terms of leadership.’ Furthermore, one school leader said it had enhanced people’s perceptions of ‘what I was doing as a SENCO in the school’ and enabled them to feel as though they were supporting staff, for example, to become more knowledgeable about children with ASD, not feeling like they have sole responsibility for that child and better understanding about how to meet the needs of ASD pupils. For example, one SENCO said,

“[its] being able to see it in lots of different ways and be able to understand that meeting their needs can mean lots of different things and it doesn’t necessarily just mean buying more resources or just getting more money”

Programme leads reflected on the changes they had observed in schools:

“The difference between the first one or two session and the final session was quite incredible. So initially people are wondering what they can do, they are very stuck on what isn’t working, they are very stuck on the child being quite challenging. But in the final session you are hearing about some very creative solutions, perhaps some really deep understanding about what’s going on, what’s difficult within the school” (Programme lead 1)

“some people were very daunted by the idea of research, like even the word. And I think once we went through that process it was really clear that they all had the skills there already and with a little few tiny pointers on how to write impact frameworks and things like that all the schools were able to do it so I didn’t realise there would be an almost preconceived fear of doing research… I think it was an extremely successful project, I was really taken aback by how much of an impact it made for a number of children across multiple schools’. (Programme lead 2)

“the overwhelming thing I realised right at the beginning was actually how nervous people were about supporting these learners in a mainstream setting. They felt very confined but time pressures, financial pressures, expectations of people in their class and how they were going to manage those as well as individual needs of children .. They weren’t necessarily aware of particular strategies or
methods out there …[teachers have] absolutely become more confident in how to address the needs of these children” (Programme lead 3)

Programme leads also reflected on the changes they had seen in themselves:

“I’m always inspired by what schools achieve despite all difficulties, and timing issues and the funding constraints… I would say that I learned about specific ways to approach the teachers, I don’t know all the strategies and interventions that are available so I’m learning things all the time about resources. And I’m learning all the time about the ways in which teachers are communicating with children. So, by the end of the process I’ve learned at least as much as the teachers have.” (Programme lead 1)

“[There is] a huge amount of hard work and will from all those across the schools. Which is kind of contradictory to the fact that mainstream provision for autistic children is not great in those schools…I don’t know if it’s related to time pressures, there’s kind of structural issue with schools and the Ofsted framework and other thing like that not including children with complex needs unless they are at a special school where there is a different set of expectations”. They reflected that projects such as this could give the structure and accountability to SEN provision that isn’t yet expected of schools through Ofsted. (Programme lead 2)

“I learnt a lot…I started the project with imposter syndrome …[but] I’ve developed some very specific skills which I don’t think I had recognised myself. I’ve learnt a lot about coaching; that’s something I had not had much experience of before …[and] there was the fact I hadn’t had any contact with the teaching alliance before and I think it’s something that I’m very positive about. I think that more schools should be involved. It’s been a learning curve for me to see how extensive that network of school alliances actually is.” (Programme lead 3)

What worked well?

Both teachers explained how useful it had been to talk to other schools involved in the programme and share ideas and experiences. This had led them to new strategies and ideas they had been unaware of such as the 5-point scale, making the route to reward quicker for the ASD pupils and the use of Lego therapy. Both teachers also reflected on the way they had been able to develop their own leadership skills within the project as they had led CPD for other staff and taken steps to replicate their project across the schools.

The teachers felt that the school leadership team has been supportive and given them the autonomy their require to effect change. Attending the sessions as a pair was considered to be ‘massively useful’ and ‘essential’ by teachers as it gave them an opportunity to discuss individual pupils with someone more senior and they both had the opportunity to witness the effectiveness of interventions at other schools. Two of the school leaders we spoke to have appreciated the opportunity for involvement and very much recognised the benefits of being able to work with other schools on a similar journey. Despite their leadership teams missing them in school, they reflected that addressing the needs of ASD children is a real priority for their schools. However, one school leader would have preferred for their SENCO to attend alone as she felt it put an unnecessary burden on their school for her to be absent and she felt that this would have better empowered the SENCO and enhanced their CPD.
This school leader also felt that they knew a lot about the research around ASD and also about research methods having undertaken a Masters in SEN. In contrast to the views of teachers, they felt that a senior leader attending was not what facilitated buy-in since the school had already committed by releasing the teacher to take part in the project.

Overall, teachers commended the design of the programme. For example, one teacher felt that recording data at multiple time points within the project had helped to identify when and how the project was making an impact and that the overall dataset provided a good evidence base to present to other staff and encourage buy-in for future replication. A school leader said that their data collection, although time-consuming ‘entirely drove where our project went’. The other teacher highlighted how useful it had been that the sessions incorporated a wide range of learning methods, citing one where they had been encouraged to make a 3D model of their intervention in order to provide a new perspective.

On discussing what worked well programme leads highlighted the way the programme promotes more ‘accountability and rigour’ to CPD. One programme lead said,

“If you think about processes of CPD its moving away from the idea that knowledge can just be transferred and you’re working more with the principle that people take their own ideas, they explore them in their own setting, they evaluate what they are seeing, they take baseline measurements, they get engaged with a research process which means that they have accountability for what they are doing. Not just within their schools but to other colleagues outside of their school as part of the research and learning community…. You’ve also got facilitated support so schools can think about what kind of measures to take, whether baseline measures are appropriate, whether they are looking at process measurements so it is a kind of supported, highly reflective, highly accountable mechanism that both uses and produces research. “

Another felt that the school-to-school element reduced a sense of isolation amongst professionals and said,

“realising that actually a lot of the other schools were feeling the same way, that they weren’t just in isolation, really increased peoples’ confidence, it took away that element of oh actually am I failing this child, …we definitely saw an increase in confidence around delivering interventions or supporting children in class in specific ways”

What worked less well?

Some staff reflected that they had been disappointed that they had not collected more data around learning behaviours and had instead chosen to focus on academic progress as they now realise from the presentations given by other schools that this would have been most useful in assessing progress. They suggested that, in the future, participating schools are encouraged much more strongly to use these scales and measures. A school leader suggested that, while the data was useful to collect, they could not be confident that progress made was directly attributable to this project and not other changes taking place within the school.
In this sense, another school leader reflected that it was more important to observe and make sense of the changes happening before you then to spend too much time focusing on individual pupil data, especially where you wish to make a whole-school change.

Senior leaders noted some challenges which suggested that the facilitators may have been quite time pressured. For example, in one case, the facilitator had not attended a scheduled session with a participating school and this had incurred costs for the school, unsettled some of the ASD pupils who had expected the session to take place and meant that they missed out on having a facilitator experience their setting. It was recognised that this was likely just an oversight. However, another of the school leaders felt that the facilitators had been expected to provide a lot of support on top of their regular workload.

Despite the recognition around time pressures, one senior leader would like to see more time built into the programme so teachers can informally chat about their experiences and probe on ideas and strategies that have been shared. Further, a programme lead felt that it would be more powerful to do a slightly more in-depth introduction to some of the ideas, the core ideas around teaching in autism. They also felt it would enhance the course if facilitators got together to review the literature review in more depth and the research contained within it.

To lead to the more efficient use of time one programme lead said they would also have liked to see more structure or goal setting around the observations so they could be better prepared to show participating schools specific areas of interest to them. Another programme lead felt that there could be a better strategy in place for how to support teachers that enter the project mid-year having taken over from an outgoing member of staff.

Measuring the overall impact on CPD

Teachers and senior leaders were each asked to complete a separate pre- and post-programme audit. We only included respondents who responded to both audits, resulting in a sample of five teachers and nine senior leaders.

At the start of the programme, teachers had an average of five and a half years teaching experience, with the least experienced teacher on the programme having been teaching for two years and the most experienced, eight years.

At the start of the programme, senior leaders had an average of 16 years experience in schools, with the least experienced senior leader on the programme having worked in schools for three years and the most experienced, 34 years.
Knowledge and experience of research:

Teachers and senior leaders were asked to rate their knowledge and experience of research under a number of key statements using a score of 1-5 (where 1 was equal to low/none and 5 was equal to high/a lot).

- At the start of the programme teachers scored themselves an average of 2.6 for knowledge and experience of research (with the lowest average score of 2.1 and the highest being 3.7). By the end of the programme this had risen to an average score of 3.4 (with the lowest being 2.8 and the highest being 4.1).
- At the start of the programme senior leaders scored themselves an average of 3.1 for knowledge and experience of research (with the lowest average score of 2.2 and the highest being 4.3). By the end of the programme this had risen to an average score of 3.8 (with the lowest being 3.2 and the highest being 4.4).

Knowledge and experience of working with autistic pupils:  
**Teachers**

At the start of the programme, when asked to describe autism, teachers predominantly said that ASD children interpret the world or external stimuli differently and that it was a spectrum condition. At the end of the project (matched data only), teachers were able to give more detail about the range of difficulties or challenges faced by ASD pupils, focusing around their sensory, social and patterns of behaviour.

When asked about their experience of working with autistic pupils:

- Three of the five said at the start of the programme they had either moderate or considerable amount of experience in their current role, whereas two said the same of previous roles.
- Four of the five said at the start of the programme they had had a small amount of training in working with pupils with autism
- Four of 10 agreed at the start of the programme that they had the knowledge and skills to teach children with high-functioning autism. By the end of the programme, all five agreed.
- None of the five agreed at the start of the programme that they had the knowledge and skills to teach children with low functioning autism. By the end of the programme, all five agreed.
- None of the five agreed at the start of the programme that they know how to help pupils with autism to develop their social skills. By the end of the programme, all five agreed.
- Two of five agreed at the start of the programme that they know how to help pupils with autism to regulate their emotions. By the end of the programme, all five agreed.
- One of five agreed at the start of the programme that they know how to help pupils with autism how to develop relationships with other people. By the end of the programme, all five agreed.
Senior leaders

When asked about their experience of working with autistic pupils (matched data only):

- Six of the nine said at the start of the programme they had a considerable amount of experience in their current role, whereas one said the same of previous roles.
- Seven of nine said at the start of the programme they had a small or moderate amount of training in working with pupils with autism.
- Six of nine agreed at the start of the programme that they had the knowledge and skills to teach children with high-functioning autism. By the end of the programme, all nine agreed.
- Five of nine agreed at the start of the programme that they had the knowledge and skills to teach children with low functioning autism. By the end of the programme, all nine agreed.
- Five of nine agreed at the start of the programme that they know how to help pupils with autism to develop their social skills. By the end of the programme, all nine agreed.
- Three of nine agreed at the start of the programme that they know how to help pupils with autism to regulate their emotions. By the end of the programme, all nine agreed.
- Four of nine agreed at the start of the programme that they know how to help pupils with autism develop relationships with other people. By the end of the programme, all nine agreed.

Headteachers were asked to complete an end of programme audit. Eight responded. Of those:

- Six said that the project had a significant impact on certain pupils and two said it had a significant impact on many pupils.
- Half said it had moderate impact on the skills and understanding of the senior leaders involved and half said it had a significant impact.
- Seven said it had a significant impact on the skills and understanding of the teachers involved while one said it had a moderate impact.
- All said that their overall view of the programme was either good or excellent.
- Seven expressed an interest in taking part again.
Appendix 1: External evaluator report

Reflections on the ARP impact evaluation presentations

Overall
Like other colleagues at the presentations, I found the seven schools’ stories fascinating and moving. Tales of self-discovery and empowerment are always impressive; when they tell of significant, often life-changing, success in enhancing the learning of pupils about whom schools and carers have had many concerns, such accounts are powerful and affecting.

Characteristics of successful schools
The most successful schools showed similar characteristics: a strong drive to whole staff working and ownership; emphasis on the empowerment of all, whether pupils, teaching and support staff or parents/carers; careful selection and implementation of before and after assessment approaches; pre-agreed protection of project staff’s time and space for the project; commitment to the development of visuals and multimedia communication right across the school; preparedness to take risks and innovate, for example in relation to the creativity shown in developing resources and environments.

Success beyond the target group
Many schools reported success with a far wider group than the target group or individual. More ‘universal’ programmes, as long as they are designed with appropriate flexibility, are always more likely to achieve the desired outcomes for individuals. As widely acknowledged by speakers, the behavioural characteristics shown by an individual with an autistic genetic inheritance vary greatly: an approach relying on simplistic beliefs about ASD learning will not work. There is also a particular issue with any diagnosis of autism in children of 2 or 3 years old: diagnosis at that age usually needs to have been based on sophisticated methods to be secure.

Assessing progress in learning behaviour and language
Alfred Salter School worked with a group of six pupils with a diagnosis of autism, across a range of ages. Unusually, these children’s parents/carers had no interest in pursuing an EHCP for them. So, as the presenters explained, the skills needed to ensure the pupils’ progress needed to be ‘pushed into their learning in class’.

With the help of the school’s speech and language therapist (SaLT) a small group programme was devised. In the first half-term intensive stage, the group met for 30 minutes two or three times a week to work on attention and listening skills and turn-taking. The SaLT provided pages of prompts for the teaching assistants to ensure consistency in promoting the target behaviours and progress was rapid: two of the pupils were able to leave the group after the intensive stage.
The TAs then introduced a coaching model devised for the remaining four pupils. Three improved their concentration and turntaking; the fourth, Pupil E, about whom the school had been particularly concerned, leaped forward.

We can be assured that reports of this group’s progress are accurate because, with the help of the SaLT and other advisers, the school put in place a sophisticated system of monitoring progress from baseline, incorporating Reynell Language Scales, the Leuven Scales for well-being and engagement and the Diagnostic Standard Manual of Mental Disorders (DSM). [Sarah. Not sure how helpful the DSM could have been actually, but the school mentioned it as useful.]

These results allowed the school’s presenters to report (and you have to have worked in SEND to understand just how remarkable this statement is) that they did not feel their pupils with ASD needed an EHCP. The programme had clearly had a hugely positive impact on staff confidence in supporting the learning of pupils with autism.

**A direct approach to building staff confidence in working with non-verbal pupils with ASD**

Robinsfield School reported on another intervention with whole school impact. Through thematic analysis of a questionnaire survey, school leaders identified significant differences between EYFS and KS1 staff attitudes to non-verbal pupils. While EYFS staff were positive about such pupils, those working in KS1 were generally negative. These attitudes were reflected in parental concerns and frequent requests for meetings with senior staff. Meetings were held with individual teachers to assess their worries and training and development needs.

Joint planning between EYFS and KS1 staff incorporated:

- agreed time for KS1 teachers to observe their target pupils.
- KS1 target pupils would spend 3 X 40 minute sessions a week in the EYFS classes
- 3 X 20 minute 1-to-1 sessions for KS1 target pupils.
- widening channels of communication between parents and staff

The intervention resulted in KS1 teachers’ language about non-verbal pupils becoming far more positive and parental concerns, as reflected in requests for meetings, being greatly diminished.

**ASD-specific points**

Reports often mentioned the following as important in relation to the learning and well-being of pupils with autism:
• predictability and consistency at transitions. For example, Redriff School’s introduction of the Now and Next approach in early years enabled their staff member to rethink her early commitment to ‘structuring the whole day’ for her target learner. The teacher realised the benefits of the pupil understanding the difference between the times when she could choose what she did, and the times when teachers were going to make the choices. More broadly, Camelot School’s initiative around play and the environment extended to a ‘walking code’, carefully staggered transition times, and, as whole school data has shown, led to improvements in learning behaviour.

• communication, visual, oral and augmentative, including sign and symbol. Charles Dickens School showed great creativity in its personalised and inexpensive approach to creating learning packs for 15 minute daily language sessions built on the target pupil’s passion for buses and transport. The model has been so successful that it is being rolled out across the school. Several schools mentioned the need to ensure that support staff understood the need for consistency in communication (see ‘predictability’).

• reviewing and building ‘sensory’ provision. Reports valued this as a means of stabilising behaviour, for example in relation to support for SH, an able and articulate learner with autism at Prendergast School. Before the project her behaviour was deteriorating, with increasing aggressive outbursts. A ‘sensory circuit’ and selective use of a new ‘sensory room’ were valuable in helping her outbursts diminish in frequency. All thoughts of special schooling for SH – much to the fore before the project – have been set aside.

Some conclusions

This programme, comprehensively discussed in the day event at Rye Oak Primary School, represents a major scaling up of work with pupils with autism within the model under development.

The interventions generated impressive change through embedding policy and practice in school and community ownership, together with structuring of staff learning of skills appropriate to the project: these included skills relating to SEND, such as support for pupils with autism, alongside those relating to research management, such as ways to assess change over the life of an initiative.

It was noticeable that speech and language therapists had had major impact on communication policy and practice. (One or two schools previously without such support seemed to have discovered oral and visual whole school communication policies as something of a revelation). I would strongly recommend that a SaLT is attached to the advisory team of any future project.

It has been a privilege to see exactly what is been achieved within this programme. The funders and all those involved in its implementation can take great pride in the outcomes.
Looking ahead

Such success breeds the need for further investigation. Central to this should be a cost-benefit analysis of programme outcomes.

Within such an analysis, key questions will relate to:

- the power of interventions based on concerns about individuals to affect whole school community practice and policy in a positive way
- the (immediately visible and future) cost savings in relation to groups and individuals with SEND. We need to understand the financial implications of, for example:
  - Alfred Salter School’s conclusion that pupils with autism would not require EHCPs
  - the transformation of plans for individuals when their success in the mainstream made worries about their ‘needing’ a transfer to a more expensive special school irrelevant
- the extent to which staff’s other career developments, such as SENDCo training, supported the programme’s success, particularly in terms of regular first hand access to research studies. It may be cost effective to embed similar programmes in standard SENDCo training.

Finally, the success of the project makes it important that the infrastructure within which it has been created is critically analysed. Recognition of the good work of London South TSA is well-deserved, but the organisation and the schools it partners exist within substantial bureaucratic systems for EHCP assessment and oversight run by local authorities. While celebrating the programme’s success, we need to explore how the TSA’s exciting work can be integrated across all schools to complement and enhance, rather than run alongside, local authority support procedures.

Nick Peacey
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