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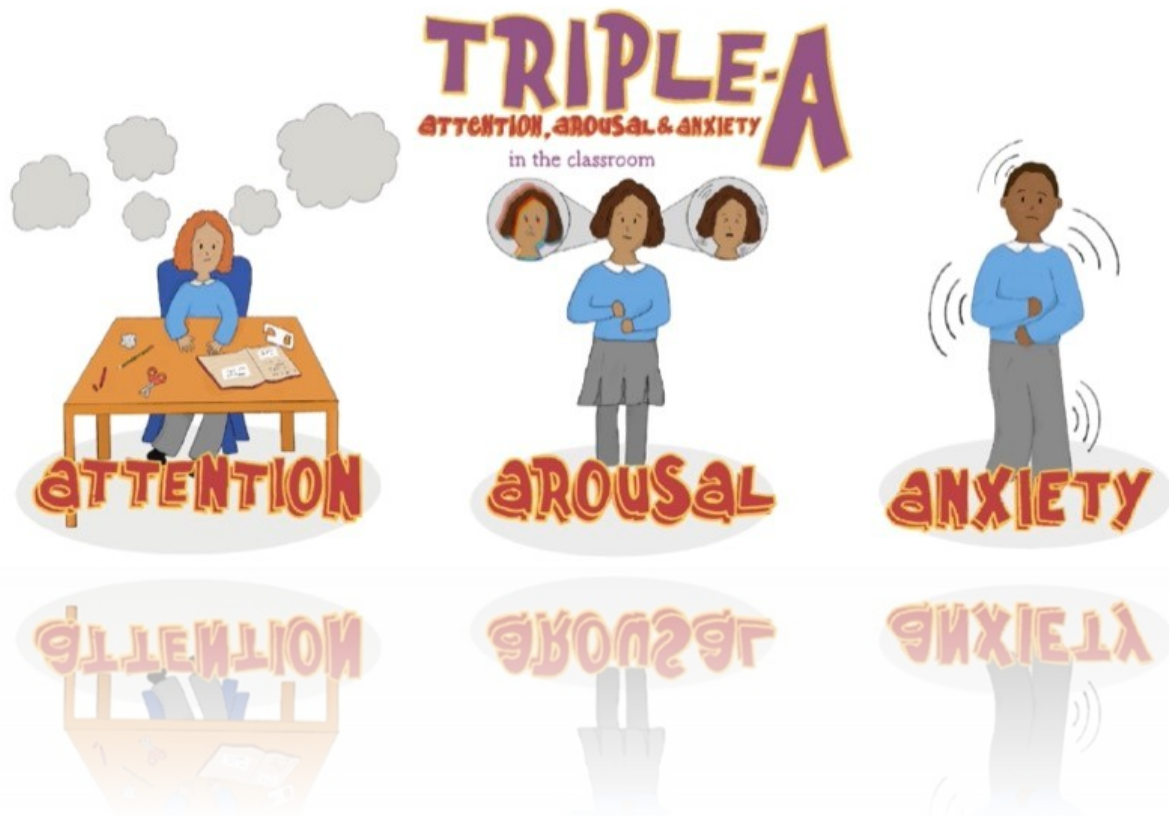
Centre for Neurodiversity
and Development



Triple-A in the Classroom

Attention, Arousal & Anxiety

Brief Report on Consultation Interviews



Research
England



Economic
and Social
Research Council

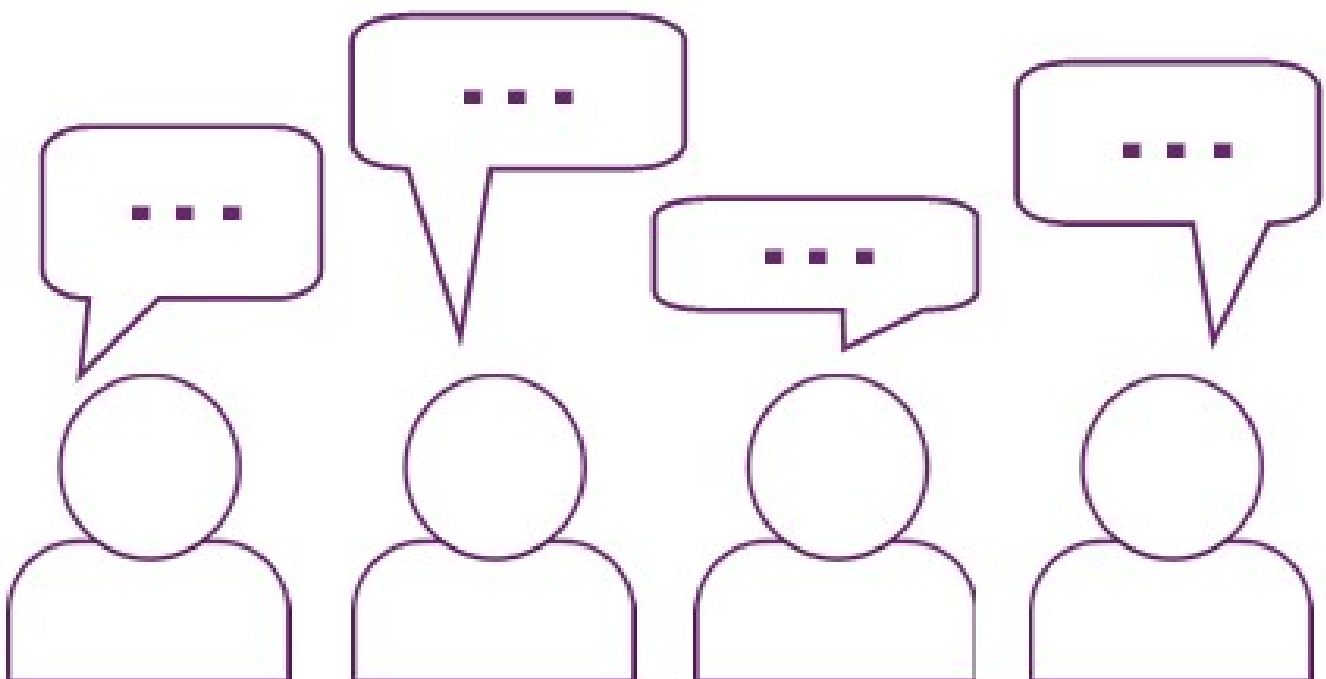
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Glossary

Anxiety: Feelings of unease, worry and fear.

Arousal: The feelings we experience from signals in the body after receiving sensory input.

ASC (Autism Spectrum Condition)/Autism: A developmental condition, affecting individuals in different ways, but generally impacting on communication, social interactions and sensory experiences.

Attention: A set of related abilities, mainly concerned with being able to process certain information while ignoring other information.

EP (Educational Psychologist): An individual that works with children and young people to support them through childhood and school in a psychological capacity.

Heterogeneity: Having diversity between people or things.

Hyper-Arousal: When sensory inputs create an intense reaction in the body, can be very distressing for the person experiencing it.

Hypo-Arousal: When sensory inputs fail to create appropriate sensory stimulation, leading to failures to notice the sensory input, and failure to engage.

Intolerance of Uncertainty: Describes a dispositional characteristic and a tendency to react to uncertain events and information in a negative way.

Likert Scale: Measurement used often on surveys etc., usually on a scale of 1-5, to represent people's attitudes towards something.

Neurodivergent: Thinking and behaving differently from what is considered neurotypical.

Open-Ended Questions: Questions that allow for more than just a yes or no response.

SEN (Special Educational Needs): Children with learning difficulties or disabilities.

SENCO (Special Educational Needs Co-Ordinator): Organises SEN activity in school and responsible for supporting SEN children.

Stakeholders: An individual with concern or interest in something.

Content Analysis: A type of data analysis concerned with drawing themes and quotes out of transcripts from interviews or focus groups, as well as quantifying the number of people who discussed these themes. .

Transitions: children's movement in school between classes/teachers and between different schools.

Triple-A Difficulties: An inter-linked set of difficulties that can impact children in the classroom. Consists of Attention, Arousal and Anxiety.

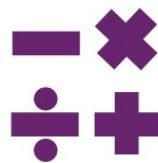
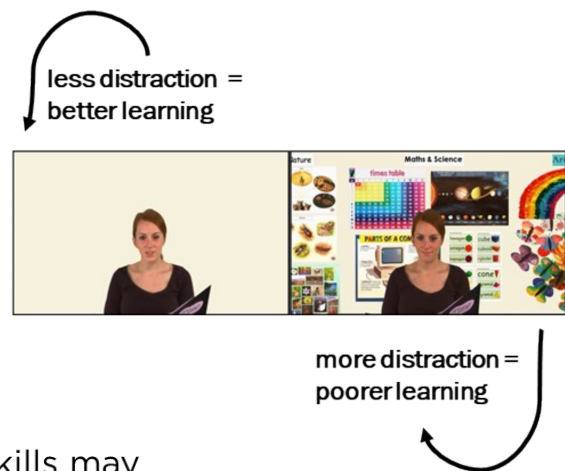
Qualitative: Something measuring qualities or characteristics, rather than quantity.

Background

Evidence from a number of studies at the Centre for Neurodiversity and Development emphasises that there are three important factors that are often overlooked but which can act as barriers to learning and engagement for a wide range of children and young people.

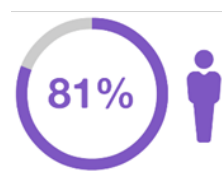
Attention difficulties make it hard to stay focused on a task. Our studies show that a **visually cluttered classroom** can make it even harder for children to focus on lessons – especially for young people with poorer attention skills (e.g. neurodivergent children).

Hanley et al. (2017).

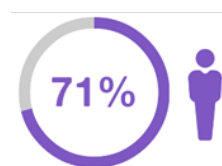


Attention skills may be *particularly important* for learning maths

Arousal Many young people with neurodevelopmental conditions have very different responses to **sights, sounds or smells** which can lead to distressing (hyper-arousal) or reduced (hypo-arousal) responses. This can make it very difficult to participate in class.



81% of parents believed sensory differences affected life at school frequently/all of the time



71% of teachers believed sensory differences affected learning frequently/all of the time

Jones et al. (2020).

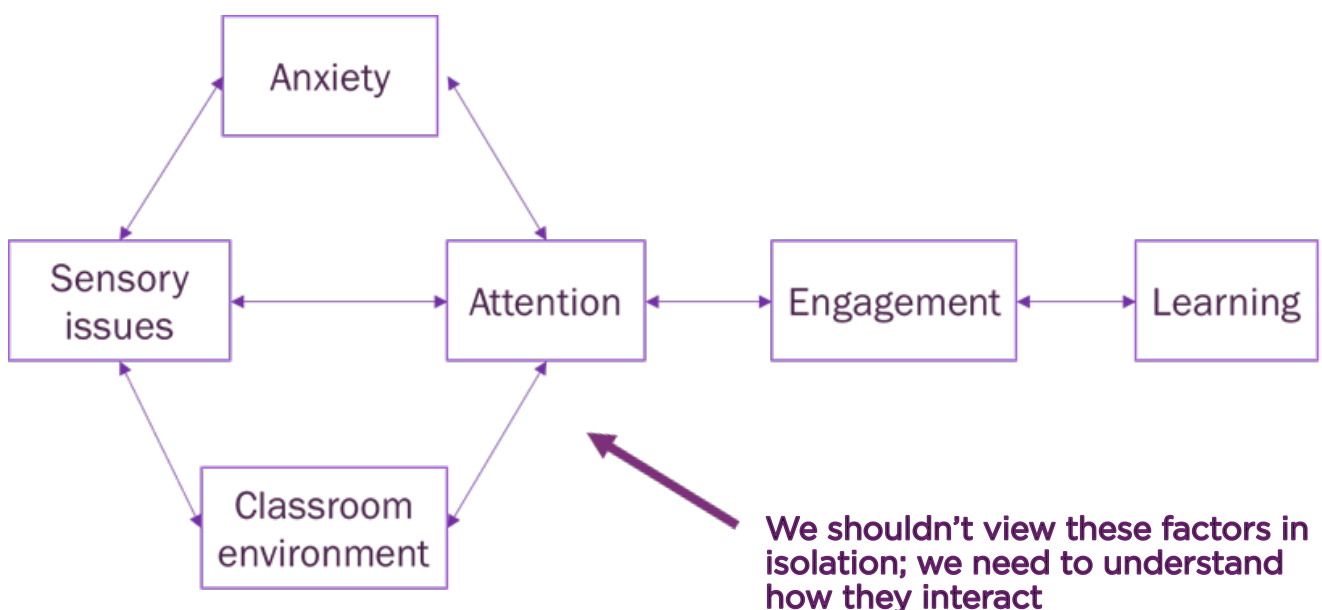
Anxiety can make everyday experiences feel unpredictable, distressing and lead to poor focus in school.

‘How can you possibly learn with all that adrenaline rushing through you? It’s like asking someone to do long division when they’re free falling from a plane. Not going to happen.’

(Parent)



McDougal et al. (2020).



Triple-A difficulties are not easily 'seen'
They are **more common** in **autistic pupils**
They can have a significant impact on learning and engagement.
Small changes could lead to big differences for a wide range of children and young people.

Introduction

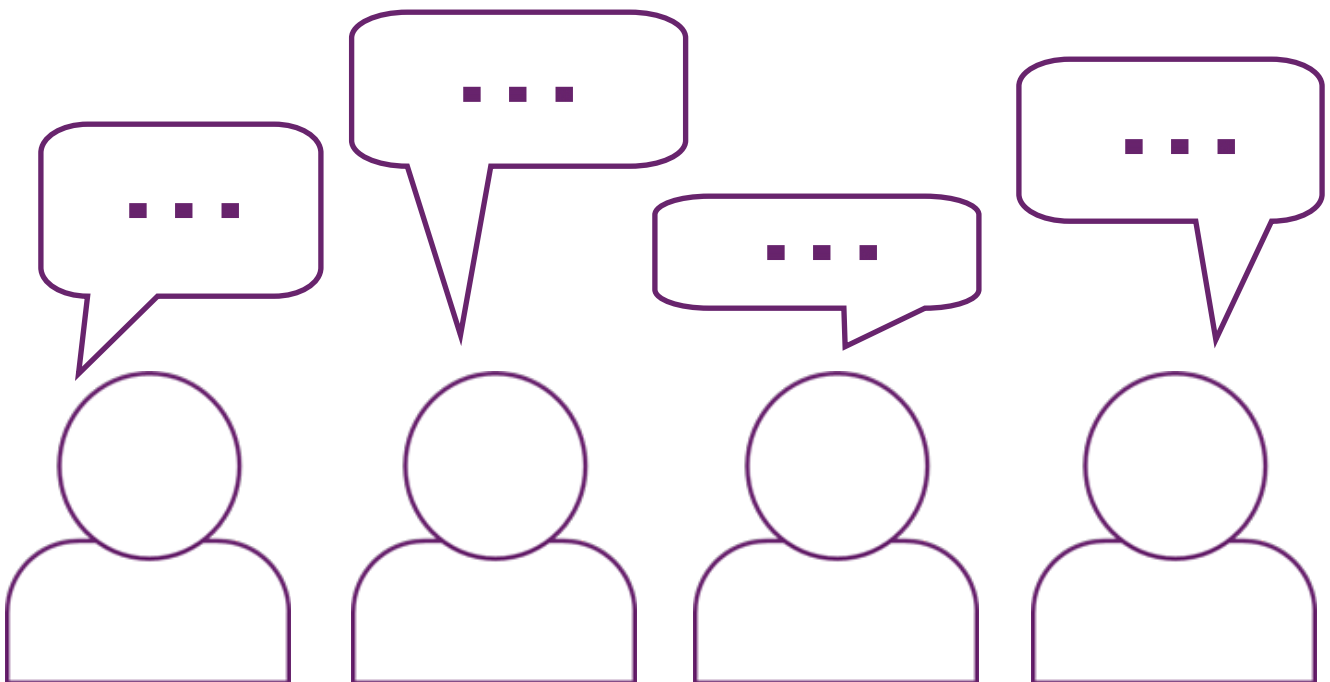
This background research, as well as previous research in this area, shows that attention, arousal and anxiety can act as barriers to learning for autistic and other neurodivergent children and young people .

The aim of the Triple-A project, is to translate this research and create an online training resource, in order to raise awareness and understanding among educators and teachers about how these issues may impact in the classroom.

Before beginning to finalise this online training tool, there has been a consultation period, to see if the proposed project met the needs of key stakeholders, such as autistic people, teachers, EP's and parents, and to get feedback to guide the development of the resource.

As part of this consultation period, interviews were run with autistic adolescents. These interviews provided this important group of stakeholders a space to discuss ideas and opinions around these issues, and indeed discuss the relative importance of these difficulties in comparison to other factors that they have faced in the classroom context.

This report will highlight the key insights and feedback from these interviews.



Methods



Recruitment

Recruitment announcements were sent through **schools networks** and through the **Communication and Interaction Team** at Durham County Council.

All those who were recruited were aware of the basic principles of the project and the Triple-A work (i.e. they were not blind to the aims of the project).

Participants/ Demographics

Autistic Adolescents = **8**

Ages—12-17

1 Female, 7 Male participants

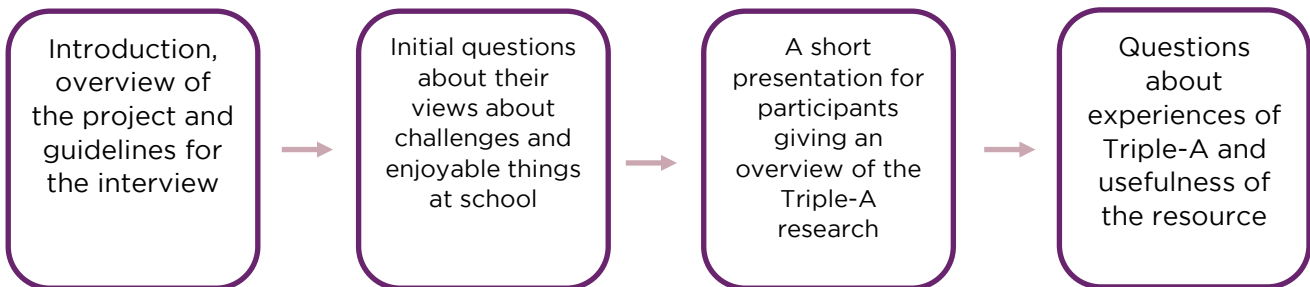
Seven out of the eight participants had their parent / guardian sit with them for the interview.

Two of the participants were twins, and sat in their interview together.

All participants were required to have a parent/guardian present for the introduction and for the debrief, although they were not required to be present during the interview segment.

All interviews took place between August 4th 2021—September 29th 2021.

Interview Schedule:



Sample Questions and Format:

1. **Open-ended questions** (e.g. What would say are the main things that you enjoy about school?)
2. **Likert Scales** (e.g. on a scale of 1-5; Can you identify with the issues highlighted in the studies we have done?).

Qualitative data were analysed using Thematic Analysis (Braun & Clarke, 2006).

Questions:

Section 1: Initial Questions (Not Specific to Triple-A).

Question 1: What would you say are the main things you enjoy about school?

Question 2: What would you say are the things you least enjoy at school, or things that you find difficult or challenging at school?

Follow up: Thinking about now versus when you were younger and in primary school—have these issues change?

Question 3: What message would you like to give to teachers, school staff to help support pupils just like you?

Question 4: What things do you think teachers and school staff need to understand better about autistic pupils?

Section 2: Follow-up Questions (Specifically about Triple-A).

Question 5: Can you identify with the issues highlighted in the studies we have done? Are these familiar to you? (Likert scale response) -

**1—I do not identify with these issues at all
5—I strongly identify with these issues**

Question 6: Do you think that sharing this research / information with teachers would help them to understand these issues better?

Question 7: We are intending on using this research to make an online training tool to help school staff understand Triple-A issues better. Do you think this would be useful? Is there anything you want to add or any comments you would like to make about this?

Findings

The findings below will be quantified according to themes found during the open-ended part of the interview before the Triple-A research was introduced to the adolescents. The main points from questions asked after the Triple-A presentation will then be summarised, as these were mainly closed response questions, and so didn't elicit enough data to create themes. Although there were some responses given from parents who sat in the interviews, these will not be presented in this report.

Section 1: Initial Questions (Not Specific to Triple-A).

There were a number of main themes which emerged from the data, which were: social factors, teachers, lessons/learning, differences between primary and secondary school, and sensory differences. Each of these themes also had smaller factors which related to them, which will be discussed below.

Social factors

Social factors were discussed by 7 (out of 8) participants in the interviews and so were clearly an important part of young people's experiences in the classroom.

Of the 7 adolescents who mentioned social factors, 5 of these mentioned them as being positive, and stating that the thing they most enjoy about school is friendships:

Friendships

[when asked about what they enjoy at school] "Seeing people at school." (Autistic Adolescent)

"I enjoy like being with my friends." (Autistic Adolescent)

It was also mentioned by one of the participants that having friends in lessons can alleviate some of the embarrassment of when we get things wrong in front of others:

"if you fail and you have someone to laugh with, it's easier rather than just you being excluded and just being embarrassed longer" (Autistic Adolescent)

The more negative side of social factors were mentioned by 3 of the participants that mentioned this theme.

Bullying

Two of the adolescents mentioned the impact of bullying at school:

"I went to school for like up to year six and then we had to leave because of bullying issues" (Autistic Adolescent)

Social Isolation

And one of the adolescents spoke about not having any friends to be with at school and how this was one of the big challenges for them at school:

[asked why they don't like break times] "because I don't have any friends" (Autistic Adolescent)

Lessons/Learning

Another common thing that adolescents suggested that they enjoyed about schools was engaging in lessons and being able to learn. 5 of the participants suggested that they enjoyed lessons/learning in general, or specific lessons:

[when asked about what they enjoy about school] "Learning." (Autistic Adolescent)

[when asked about what they enjoy about school] "Lessons that aren't boring." (Autistic Adolescent)

[when asked about what they enjoy about school] "to be able to be educated in things I enjoy" (Autistic Adolescent)

Differences between primary and secondary school

When asked about whether the things they enjoyed, or found challenging about school had remained stable throughout school or changed, most of the participants suggested they changed between primary and secondary school (5/8), some felt they had stayed the same (2/8) and one felt that some parts had changed and others were the same (1/8).

For those who felt they had changed, some felt that primary school was more challenging than where they were now (3/5):

"I actually didn't like primary school, the teachers used to get cross" (Autistic Adolescent)

[talking about why they didn't like primary school] "the teacher made me sit at the back of the class" (Autistic Adolescent)

Some of the young people who felt there was a difference between primary and secondary, felt that secondary was more challenging, or had more challenges than primary school (2/5):

"It felt a bit like, more safe in primary school than it does secondary" (Autistic Adolescent)

[when asked about issues now compared to primary school] "more" (Autistic Adolescent)

Two felt that the challenges they faced were the same:

[when asked about issues now compared to primary school] "No I think they've largely stayed the same" (Autistic Adolescent)

One felt that while some of the challenges were the same, it was the understanding within the school that was different:

"I think some bits are the same. I still kind of at times thought it was very loud and overwhelming sometimes. But I think some of the big differences is where I am now people understand me a bit more" (Autistic Adolescent)

Sensory differences

Sensory differences were mentioned as being challenging in a number of different ways across the school experience, by 4 of the participants.

Noise

Noise was mentioned as being a particular sensory issue by 3 of the pupils. This was particularly in terms of noise in busy classrooms from other students.

[when asked about challenges] "being in any loud, crowded environment where there's lots of kids talking or shouting at one another when I'm working there, that's tough" (Autistic Adolescent)

[speaking about what they enjoy in class] "It depends which class really because some of them are a bit harder because of the noise and stuff." (Autistic Adolescent)

Break/Lunch times / Lesson Transitions

Different aspects of break and lunch times were also mentioned as being sensory difficulties, both in terms of smells from food (1/4), eating at lunch time (1/4) and the busyness of these times when having to move around the school and queue for lunch etc. (2/4):

Break/Lunch times / Lesson Transitions

Different aspects of break and lunch times were also mentioned as being sensory difficulties, both in terms of smells from food (1/4), eating at lunch time (1/4) and the busyness of these times when having to move around the school and queue for lunch etc. (2/4):

“Sometimes it’s like a bad smell or something that I don’t like. That’s not good either.” (Autistic Adolescent)

“I leave my classroom 5 minutes early so that I can avoid the crowds because I can’t cope with the crowds” (Autistic Adolescent)

[parent asks if they like eating at school] “no...I just don’t feel comfy” (Autistic Adolescent)

“When we have to queue at lunchtime. I’m not very good with that.” (Autistic Adolescent)

Teachers

As there was a question specifically asking about teachers current understanding of the pupils needs, teachers were discussed by all 8 of the participants. The nature of these reflections on their teachers differed greatly per pupil, as some had very positive experiences, where others had more negative experiences.

The negative experiences were mainly centered around challenges that the teachers can present themselves, such as being unclear and having a lack of understanding (of the pupil, of autism, or of sensory differences), and also around not wanted to be ‘babied’ or singled out by the teachers.

Perceiving teachers as a challenge in school:

When asked about what they found challenging in school, 3 of the pupils directly stated that some teachers were the biggest challenge for them in school:

[when asked about what is a challenge for them in school] “some teachers” (Autistic Adolescent)

[when asked about what is a challenge for them in school] “some of the co-operation from the teachers”

Ways in which teachers were perceived as being part of the challenges faced during school were through things like being unclear in their instructions (1/8) and having a lack of understanding about the pupil, autism, or sensory differences (6/8):

[speaking about what teachers need to understand better] “what I do is not just for attention, it’s because I actually can’t really cope if there’s a fly or something or something smells bad” (Autistic Adolescent)

“if there’s a situation going on...it could be something small...they should know that’s gonna impact that person” (Autistic Adolescent)

Somewhat related to this, one of the young people spoke about their teacher not allowing the reasonable adjustment that they have in place at the school, and how this can have a big impact on the rest of their day:

[speaking about being allowed to leave lessons 5 minutes early to avoid crowded corridors] “I told her [the teacher] that I was gonna go five minutes early, because I normally tell my teacher just in case...she just turned around to me and she said this is not really a good time and my brain literally, it just froze in my head” (Autistic Adolescent).

Feeling singled out by the teachers

Three of the young people mentioned teachers singling them out, or feeling like they were getting special treatment in from of others, and this was cited by all who mentioned it as a negative experience:

“I don’t like feeling like I’ve been singled out much in a classroom” (Autistic Adolescent)

“Yeah, babying, I don’t like that” (Autistic Adolescent)

Positive teacher experiences

One of the pupils felt that they were satisfied with their teachers levels of understanding in the school they were at now:

[when asked about level of teachers understanding] “I think it’s quite good at the moment” (Autistic Adolescent)

And two of the pupils reflected on good experiences they had with some of the teachers in their schools:

“I started getting like this one person who was just so amazing and she like really, really helps me” (Autistic Adolescent)

Keys messages for teachers:

Throughout the interview the pupils offered some great insight into what they really wanted to get across to teachers, and they were also specifically asked about what their key message for teachers would be. A range of things were suggested, including involving the pupil in strategies, thinking about who you are making the pupil work with, understanding sensory overload, and understanding differences between autistic pupils. Below are a few examples of what was suggested:

“Have like a meeting with that person [the pupil] and figure out how to help in situations that may need help” (Autistic Adolescent)

“Offer an option to work with people you know and not force students into a group that they’re not comfortable with” (Autistic Adolescent)

“Pay more attention and know what’s difficult” (Autistic Adolescent)

“It would be good if there were clearer instructions and there was personal warning if there was going to be some sort of sensory issue going into a classroom” (Autistic Adolescent)

“It’s worth understanding that for people like me, we get sensory overload much faster than normal people. I can only handle so much noise or something, other kids can cope, but being in a noisy classroom, I can’t” (Autistic Adolescent)

“Yeah not every autistic person is the same...I will see some teachers, they don’t realize that, and think because one autistic person liked it when I did this, I’ll just do it for them [the child]” (Autistic Adolescent)

“do your job right” (Autistic Adolescent)

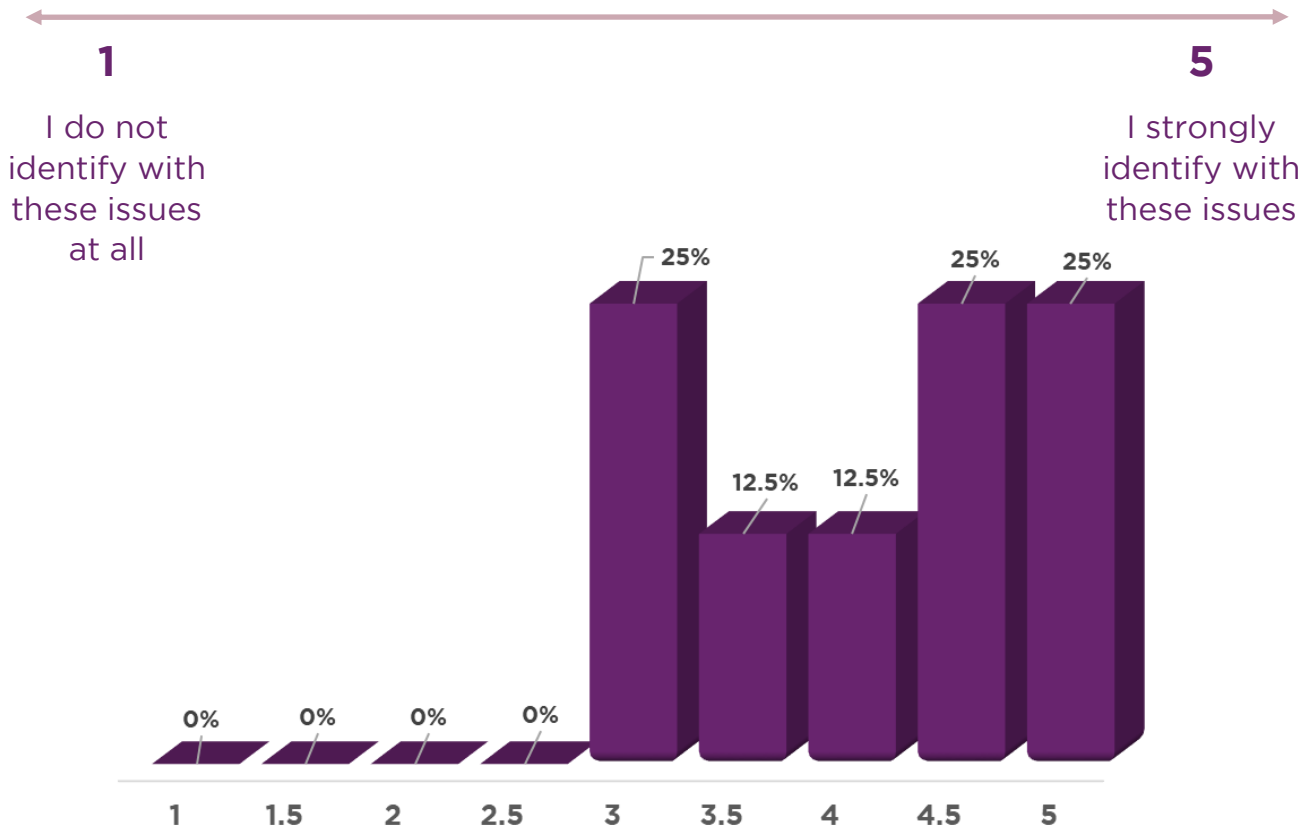
“It’s mainly the sensory thing” (Autistic Adolescent)

“if you had like more awareness and you can be more like aware of things around them....and situations” (Autistic Adolescent)

Section 2: Follow-up Questions (Specifically about Triple-A).

As the following questions in the following section were much more close-ended and therefore created mainly yes/no responses, the findings in this section will be summarised in terms of number of answers to the questions.

Question 5: Can you identify with the issues highlighted in the studies we have done? Are these familiar to you? (Likert scale response).



All participants suggested that on a scale of 1-5, they identified with the Triple-A issues at least at a score of 3, with 50% of the participants rating their identification with Triple-A issues as a 4.5 or 5.

One of the young people offered an example of what came to mind when thinking about how Triple-A had impacted them in school, and spoke about the anxiety that something such as a performance in a music lesson can have, and the impact it might have on their day:

"If you have to perform [in a music lesson performance] and then you've been told earlier, you have stress leading up to that lesson, and then they'll make you worry and you can't really focus that well" (Autistic Adolescent)

Question 6: Do you think that sharing this research/information with teachers would help them to understand these issues better?

100%
Said “Yes”

All of the participants felt that sharing the Triple-A research that we had shared with them, with teachers, would benefit teachers and help them to understand some of these issues better.

Some of the pupils responded with some more information to this question too:

“I feel like that would help kids a lot more than just pulling them into a classroom and knowing someone’s like got a problem and not knowing how to deal with it.” (Autistic Adolescent)

“I think it would be beneficial to share this information with teachers and schools.” (Autistic Adolescent)

“I think if anything is able to help them and help other people like me it’s great” (Autistic Adolescent)

Question 6: We are intending on using this research to make an online training tool to help school staff understand Triple-A issues better. Do you think this would be useful? Is there anything you want to add or any comments you would like to make about this?

Below is a summary of the main points that the pupils made in response to this question:

“I don’t think there is anything I need to add.” (Autistic Adolescent)

“the attention difficulties I think would be beneficial because I think a few teachers don’t quite realize how distracting some minor things can actually be...as you pointed out, displays all over the walls . And just little things here and there can draw attention away from the lesson” (Autistic Adolescent)

“I think kind of like the other people in the classroom can have quite a big influence on the learning...just making teachers aware that they might have an impact on people in the classroom” (Autistic Adolescent)

“My big point is always with teachers, is just be patient. People like me just need a bit more time sometimes so being patient is the best answer.” (Autistic Adolescent)

Conclusion

As can be seen from the above findings from the interviews, autistic pupils have confirmed that Triple-A difficulties are clearly a really important barrier to learning in the classroom and that they want their teachers to have a clearer understanding on these issues. The interviews provided key insights in two main ways: **to confirm that the Triple-A resource will be valuable and needed and to highlight other issues/ barriers faced by autistic pupils in schools.**



Confirming the Triple-A resource will be useful

Through the second section of the interviews, all of the adolescents **confirmed that the Triple-A difficulties have at least some impact for them in the classroom, and for some they have a really strong impact.** The pupils also **unanimously agreed that they felt that this research would be useful for teachers to give them a better understanding of Triple-A,** and that this was needed. Throughout the open-response portion of the interview, **sensory issues in particular were mentioned by the pupils as being an issue in school.** The **need for teachers generally to increase their understanding around autism** was also mentioned by the young people; something that the Triple-A tool will hopefully go some way to doing.

Importance of other issues/barriers

As well as Triple-A, **other issues** were mentioned that are important for learning in the classroom too, and so it is important to acknowledge in the resource that there are other key issues. The pupils mentioned the **importance of friendships in school, as well as the impact of negative social experiences, such as bullying.** Pupils mentioned **how much they enjoy lessons and being able to learn in school.** The **heterogeneous nature of ASC** was also mentioned, and this is something that will be very important to highlight in the resource. Other things like the teachers trying **not to single out the pupils when supporting them** was seen as important. The pupils also suggested some key messages for teachers, that they wanted to get across through this resource. The feedback from these interviews will be invaluable for thinking about pulling together the content for the online resource.



Overall, the interviews provided an excellent insight into autistic pupils thoughts around barriers to learning in the classroom, and feedback on the relevance of Triple-A.

We will now use this feedback, as well as feedback from focus groups with teachers, EP's and parents, and workshops with teachers, in order to produce the online resource. We will be working with our advisory group (consisting of autistic people, parents of autistic children, teachers, EP's and research experts), to cultivate and shape the content and format of the online resource.

We will be aiming to launch the tool for teachers, educators and parents to freely access, in March 2022.

To keep up to date with the progress of the project, please follow the link below, follow us on instagram or sign up to our database using the QR code to hear about this and other research happening in the Centre for Neurodiversity and Development.

www.durham.ac.uk/research/institutes-and-centres/neurodiversity-development/research/triple-a/triple-a-progress/

Instagram: tripleaprojectdurham



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