

Case Study: Booker Avenue Infant School

SHARING BEST PRACTICE: THE CHALLENGE OF NOISE IN AN INCLUSIVE SCHOOL

As with many schools, the hall at Booker Avenue Infant School in Liverpool is a hive of activity. It acts as a multi-purpose space for a wide range of activities, from assemblies and dining to physical activity and learning.

Over time it had become clear that poor acoustics in the school hall were having a negative impact on a number of pupils in terms of their comfort levels, behaviour and overall well-being. A solution was required that would transform the school hall into an inclusive environment that all pupils could thrive in.

School Acoustics – The Facts

- *Poor acoustic can help have a negative effect on children making them more prone to disruptive behaviour across all age groups.*
- *Noise can impact on speech, listening, memory, reading, attention especially those with SEN and children with poor language, impaired hearing, and linguistic challenges.*
- *75% of children with impaired hearing are in mainstream education, and many school leisure and learning reverberation levels fail to meet government guidelines (BB93)*
- *80% of pupils say ‘noise’ in dining halls makes them feel uncomfortable, and is the most common complaint by staff for feeling agitated in dining halls.*

The challenge of a noisy school hall

A growing number of children with Special Education Needs (SEN) were enrolling at the school, as Head Teacher Mrs Brown explained: “We now have children with a tapestry of triggers that can overlap different conditions, including noise sensitivity.”

Noisy environments can be particularly troublesome for children with Autistic Spectrum Disorder (ASD) and staff had noticed that the majority of ASD children at Booker Avenue would not go into hall due to the noise and dining experience, choosing instead to eat their lunches elsewhere in the school. There were also a

number of other children who seemed to find the school hall uncomfortable, including some who were identified as SEN and others who were not.

What's more, the pending introduction of the [Universal Free School Meal](#) (UIFSM) programme for Key Stage 1 pupils meant that the problem was likely to get worse.

Mrs Brown commented: "We knew the hall was really noisy due to the general noise of the hall and children socialising. This was something I didn't want to stop but, as some children would not enter the hall at all, it was essential to take steps to create a more inclusive environment."

Understanding the pupil experience

Aware of the observations made by staff in the school hall and the behaviour of pupils who were finding the space uncomfortable, Mrs Brown decided to conduct a survey to gain a better understanding of the effect that the hall was having on pupils.

Whilst most of the children said that they enjoyed lunchtimes and the opportunity to talk to friends, the majority agreed that noise was the 'one thing' they would change.

These findings made it clear that although a solution was needed to reduce noise, it was important that children were still able to enjoy lunchtimes, along with other activities held in the hall.

Assessing the acoustics

Following advice from Healthy Eating Officer, Bernadette Lee, from the Liverpool School Improvement Team, Mrs Brown approached Seatable, a company that specializes in acoustic solutions for education environments, to explore the possibilities of acoustic refurbishment.

Seatable conducted a free, no-obligation acoustic assessment of the hall and produced a technical report that shed light on the factors contributing to the high levels of reverberation in the hall.

The assessment revealed that the hall had large areas of reflective surfaces which were causing a higher than acceptable reverberation time, meaning that speech and other sounds in the hall were reflecting off the floor, ceiling and walls. The result was an uncomfortable environment that made normal conversation and listening difficult, especially when many people occupy the space and speak simultaneously.

A sound success

In order to reduce the levels of reverberation in the school hall, Seatable recommended acoustic noise absorption panels which would absorb the sound in the hall and prevent reverberation, in accordance with Building Regulations Part E4,

‘Building Bulletin 93’ (BB93) Acoustic Design for Schools. The school was able to obtain funding from Liverpool County Council for the refurbishment, although schools with higher Free School Meal and SEN pupils may be able to fund this type of work through Pupil Premium and SEN funding.

Creating an inclusive environment

Staff and pupils at Booker Avenue Infant School reported an immediate improvement to the hall, as Mrs Brown said:

“The acoustic panels made an immediate difference. I even joked that I’d have to talk louder in assembly as my voice used to echo around the room!”

Catering and dining room staff also agreed that the panels had made a huge difference to the room, saying how it had created a more pleasurable environment to work in and the children already seemed much calmer.

Overall, the installation has helped the school to achieve its goal of providing an inclusive environment for all pupils to learn, socialise and enjoy their lunchtime meals. Children at the school agreed with their Head Teacher, saying that ‘they felt happier,’ ‘it’s not too noisy anymore’ and ‘they liked the panels on the wall.’

The results:

- Pupils with ASD are able to participate in all aspects of school life, and in a recent school performance they coped much better and were more engaged.
- Children no longer sit with hands over their ears.
- The hall is conducive to learning because pupils can hear and it is a more pleasant environment
- Pupils no longer complain about having a headache.
- Less stressful environment for Catering and dining room staff because it has created a more pleasurable environment to work in.

A bright future for Booker Avenue Infant School

“We would say that the acoustics now offers accessibility to all by reducing the noise levels and creating an enjoyable dining environment and experience; it will also help demonstrate to Ofsted that we know our school and our family’s needs. It can help eliminate discrimination and can inform the DFE Equality Scheme disabilities of which the autistic spectrum is included. We want all our children to achieve their full potential.” Mrs Brown.

What’s more, we can now consider using the school hall for more activities to open up valuable learning activities outside of the classroom.

What advice would you give to other schools?

Recent changes to SEN means fewer children are on the SEN register, yet, schools are accommodating an increasing number of children on the ASD spectrum, many of whom start school undiagnosed.

Acoustics technology offers a specialist education solution for the Education Health and Care plan to help all children flourish. It also helps avoid low level disruptive behaviour and promote a readiness to learn by enhancing the dining experience at transition. What's more, it's not just about old schools and high ceilings in dining halls; many new build designs are noisy and uncomfortable as dining areas were originally intended for socialising but are now used as learning spaces. Schools should consider that:

- Local authorities and schools need to know their community and their children's needs. It's vital that they work with Early Years settings for beneficial transition of pupils, to ensure children are ready for school and that additional needs diagnosis are in place before they start school.
- The cost implications of ensuring your school provides an inclusive learning environment should not be underestimated - approach your LA for advice on funding.
- Consider acoustic refurbishment in areas of high pupil use, reverberations make it noisy and the technology makes a real difference!

For more information on dining furniture and acoustics and a free assessment contact Seatable UK Ltd a specialist company in these areas:
Tel: 01484 861982 or email tony.potter@seatableuk.com or info@seatableuk.com [website: www.seatableuk.com](http://www.seatableuk.com)

Booker Avenue Infant School

- Ofsted Outstanding School
- Average of 270 pupils on the roll (49% girls and 51% boys).
- The number of pupils entitled to Free School Meal (FSM) places the school in the lowest quintile with 9% of pupils.
- Pupils with Special Education Needs (SEN) are in the 1st quintile at 6.7%
- The school is in the fourth quintile with 21% of pupils from ethnic minority families.

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