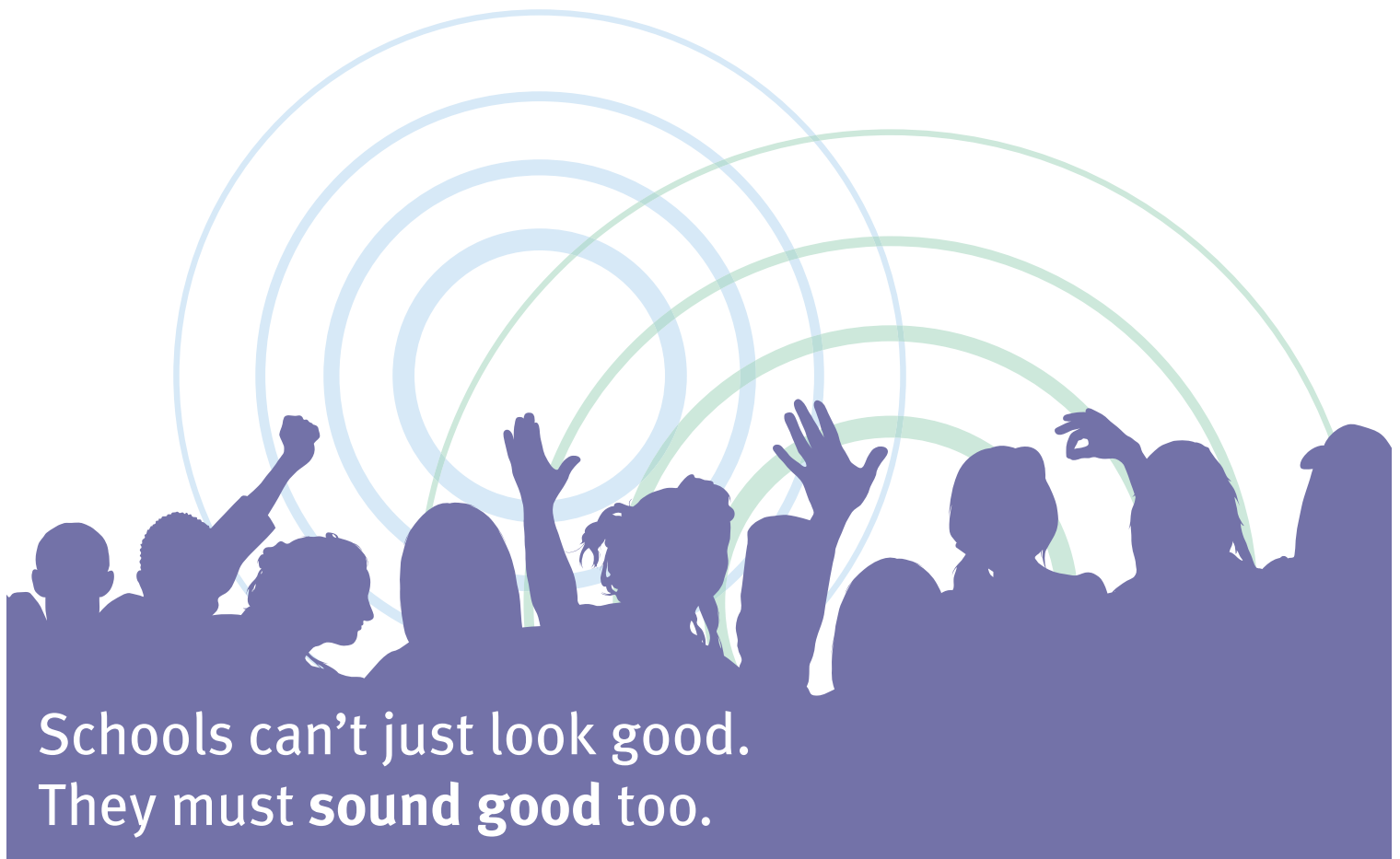


Do schools sound good?

What NDCS's survey tells us about acoustics in new schools.



Schools can't just look good.
They must **sound good** too.

Summary

High quality acoustics in schools are essential for all children to be able to listen and learn. For the majority of the 45,000¹ deaf children in the UK, good acoustics are vital.

This is recognised by the Government which has set minimum standards and the Minister for Schools has stated that all new school buildings should comply with these standards.²

NDCS has made Freedom of Information requests to 70 local authorities to establish whether new schools are complying. The results give **serious cause for concern** that there is limited compliance to the detriment of our children's education.

TV design expert supports campaign

"Despite the fact that we are embarking on the biggest schools building programme in history and that proper design is now a process and concept that millions in Britain embrace and demand, the design of British schools continues to be patchy... People with disabilities continue to suffer. In particular, organising the acoustics of teaching spaces to help the hard of hearing or profoundly deaf is a precise science and more can be done to make the learning life easier for those affected.

The technologies exist. ... The knowledge is there. I hope this campaign succeeds in putting the issue on the agenda."

Kevin McCloud, Presenter of Grand Designs

Key findings

- **Too many local authorities are not bothering to test buildings to ensure compliance.**
- **Where acoustic testing is carried out, over half of local authorities have schools that failed.**
- **Overall, only 21% of local authorities could tell us with certainty that new schools in their area met government standards and are fit for their intended use. Only 11% met the standard without resorting to 'alternative performance standards'.**

Bradley Stoke Community School in South Gloucestershire had a new sports hall built four years ago which *"failed miserably"* its initial test. A professional at the school reported that *"sound was bouncing around all over the place... pupils could not hear instructions from the teacher, and it was difficult to hear when we held assemblies."* The problems were solved when acoustic panelling was installed.

A massive £100 billion schools rebuilding programme is underway. From 2011, there will be 200 new secondary schools opening a year under the *Building Schools for the Future* programme. **Urgent action must be taken to ensure we do not miss this opportunity to build schools that provide an inclusive educational and social environment for all children.** NDCS is calling on the Government to introduce a new mandatory requirement for ALL new school buildings to be tested for their acoustics.

The following organisations support NDCS's *Sounds good?* campaign:

Special Educational Consortium, NASUWT, Communication Trust, RNID, Essex County Council, NCB, Skill, Sense, National Autistic Society, Ear Foundation, Voice Concern, British Society of Audiology and the British Association of Education Audiologists.



Why do acoustics matter?

Despite the fact that deafness is not a learning disability, government figures suggest that deaf children are 42% less likely than all children to achieve five GCSEs at grades A* to C (including English and Maths). Too many deaf children are not fulfilling their potential³.

The majority of deaf children are now taught in mainstream schools⁴ and poor quality acoustics are one of several barriers to their progress.⁵ The NDCS *Must do better!* report⁶ sets out the concerns that many parents of deaf children have raised about acoustics in their child's school building.

“My daughter is due to start primary school in September 2009. She has a moderate-severe hearing loss and is dependent on her hearing aids. I have been visiting schools over the last few months, and it has been a depressing experience. The acoustics are terrible, and they are noisy places. Classrooms, school halls and canteens that even I (with no hearing impairment) struggle to listen in. One school that I viewed is newly built, and just a small school, so on paper looked like a fair option for my daughter. On visiting I was shocked to discover that the classrooms – which were all situated next to one another – had been built without any doors at all. This was to allow the children to ‘flow’ throughout the school. The head teacher explained that they found noise from other classrooms a constant problem.”

Parent of a deaf child, London

All children require a good listening environment. To learn, they need to hear the teacher. This obvious statement is supported by a body of academic research.⁷ Deaf children are particularly disadvantaged by poor acoustics in schools, as are children with English as an additional language and children with other special educational needs.

“Mainstream classes are quite different, they can be very noisy... the noise makes me forget and find work confusing”

Deaf child.¹¹

Sir Alan Steer's recent research on pupil behaviour has pointed to the link between this and school acoustics. There is also a relationship between good acoustics and the health of teachers, with teachers working in an acoustically poor environment more likely to suffer from vocal problems.

What does the law say about acoustics?

Regulations require that acoustics in school buildings should be “appropriate to its intended or normal use”.⁸ The Government has stated that compliance can be achieved by meeting the standards set out Building Bulletin 93 (known as BB93). BB93 applies to all new school buildings built since 2003 in England and Wales.

To know whether new buildings comply, they need to be tested. This is recommended by the Government but, in many cases, buildings are not being tested because it is not mandatory nor a condition of receiving capital expenditure for all new schools.

Leigh Academy in Dartford was completed in January 2008 and has a hearing-impairment unit for deaf children. Following concerns from an NDCS family officer, an experienced audiologist was asked to conduct tests. The tests confirmed that the unit was not compliant with BB93, even though this was built into the original design specification. The unit is now being retrofitted. These issues and additional cost could have been avoided if the classrooms had been tested at the outset.

What's happening on the ground?

Despite spending billions of pounds, the Government doesn't know how many new school buildings are compliant with BB93.⁹ However, many professionals have expressed concerns to us about the quality of acoustics in schools.

So NDCS submitted Freedom of Information requests to all local authorities where a new secondary school building had opened since 2003¹⁰. We received little information about acoustics in academies and we will therefore be contacting academies separately. However, as academies are not covered by the Freedom of Information Act, they will be under no obligation to provide this information.

In the meantime, information from these requests gives us a startling snapshot into what is happening...

What our research tells us...

Are schools being tested?

- 29% of local authorities told us that there has been no acoustic testing of schools in their area.
- A further 11% did not or were not able to tell us.

This means that over a third of local authorities have no idea whether their schools comply with the law.

- Of local authorities that said they carried out testing, only 35% provided us with details of the test results, despite a clear request for this.

Replies from local authorities suggest that many do not test acoustics because it is 'only' a recommendation of BB93:

- *“Under BB93 acoustic testing is not mandatory and we are not aware of any such tests being requested or carried out.”*
- *“There are no requirements under the Building Regulations for testing.”*

Are schools complying with acoustic standards?

- Areas where acoustic testing was carried out, a shocking 52% of local authorities reported that one or more of their schools failed the acoustic standards set out by the Government.
- Of all the local authorities who provided information, only 21% were able to tell us with certainty that their schools had acoustics that met the Government's standards.

In one school it was decided that BB93 standards need not be met in the assembly hall as *“there can be expected to be pupils within the hall space whose clothing would act as a sound absorbent surface”*.

Are schools taking BB93 seriously?

BB93 permits the use of alternative performance standards from those set out in the guidance. NDCS is concerned that the justification for many alternative performance standards is weak, a concern which is now shared by the Department for Children, Schools and Families (DCSF).

Information from the request indicates that this is common.

- 39% of local authorities reported that they had used alternative performance standards.
- Only 11% of all local authorities had schools which had been a) tested, b) were compliant with BB93 and c) achieved this without having to use alternative performance standards.

A number of individual replies indicate that derogations were sought **after** testing had indicated non-compliance, suggesting that derogations are being used to get around having to comply with the government's standards.

One local authority sought a derogation *after* lots of classrooms failed the acoustic test. Classrooms that failed the test included rooms where English, Maths and Modern Foreign Languages were taught.

The test report went on to justify this on the basis that teachers, who are not acoustic experts, appeared to be happy.

“If the teachers... believe that there is clear communication of speech between teacher and student, and between students, and for study activities, then the ethos of BB93 has been met, regardless of whether the actual noise levels have been met.”

This is not borne out by some individual responses to a teacher survey and does not take into account the child's view on the clarity of communication.

Government action needed:

If we were to apply the results from our survey to the 3,500 new or refurbished secondary schools that will be built under *Building Schools for the Future*, a whopping 1,820 schools will not be fit for their intended use because of poor acoustics.

To ensure compliance with its own standards and to avoid wasting billions of pounds, the Government needs to:

- 1. Introduce a mandatory requirement for pre-completion acoustic testing in all new school buildings.** Officials for the Department for Communities and Local Government have stated that when testing has been introduced in other areas, compliance with the law has increased considerably. Local authorities have told us that they do not bother to test because it is ‘only’ a recommendation.
- 2. Publish the results of the test** so that parents know whether the school can meet their child’s needs and can make an informed choice when applying for schools.
- 3. End the practice of allowing opt-outs to BB93 through the use of alternative performance standards,** unless there are exceptional circumstances which mean that the alternatives are unavoidable. Our evidence suggests opt-outs are being abused at the expense of creating good listening and learning environments.
- 4. As part of its disability equality duties, DCSF should review and audit the quality of acoustics in new school buildings, and commit to annual monitoring.**
- 5. Ensure that new designs, such as open-plan teaching spaces, will not be pushed through** without ensuring that high quality acoustics can still be achieved.

NDCS estimates that the cost of acoustic testing is around 0.01% of the cost of a new school and a much smaller proportion of the running of a school over its lifetime. This is a minute price to pay for ensuring that new school buildings are fit for their intended use and capable of including deaf children and pupils with other types of SEN.

Only the introduction of a mandatory test can ensure compliance with government standards and provide reassurance to parents, teachers and children.

Endnotes

- ¹ This is a NDCS estimate, based on prevalence rates of deafness that have been cited in research and government figures from the newborn hearing screening programme. The figures include children with a mild or unilateral deafness.
- ² www.publications.parliament.uk/pa/cm200708/cmhansrd/cm081125/text/81125w0062.htm#qn_664
- ³ www.ndcs.org.uk/data. Figures quoted refer to deaf children at School Action Plus or with a statement of special educational needs, where hearing impairment is the main type of special educational need.
- ⁴ 80% of deaf children are taught in mainstream school in England according to the British Association of Teachers of the Deaf survey 2000, www.batod.org.uk
- ⁵ 34% of parents had concerns about the acoustics in their child’s schools. www.ndcs.org.uk/document.rm?id=3393
- ⁶ www.ndcs.org.uk/document.rm?id=3393
- ⁷ For example see Dockrell, J.E. & Shield, B.M. (2006) Acoustical barriers in classrooms: the impact of noise on performance in the classroom. *British Educational Research Journal*. 32 (3), pp509-525.
- ⁸ These requirements are set out in both the Building Regulations 2000 and the Education (School Premises) Regulations 1999.
- ⁹ www.publications.parliament.uk/pa/cm200809/cmhansrd/cm090303/text/90303w0040.htm#qn_380
- ¹⁰ 70 local authorities received the request. 52 replied, of which 14 were local authorities which said they did not hold any information on the basis that the only new school buildings in the area were academies or voluntary aided, which are independent of the local authority. These replies have been excluded from our analysis, leaving a total of 38 replies.
- ¹¹ Quoted in RNID research “Inclusion: what deaf pupils think” (2002)
- ¹² NDCS understands that the average cost of a new school is £26 million and that it costs around £3,000 (or 0.01%) to conduct acoustic testing.

NDCS is the national charity dedicated to creating a world without barriers for deaf children and young people.

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