

1. Introduction

Picture this — magnolia walls, peeling paint, regimental rows and harsh strip lighting. How does thinking about this make you feel? Bored? Uninspired? Run down? Disengaged? This is the environment that is the reality for so many learners and teachers across the country.

The environment in which learners learn and teachers teach is really important. It can make a huge difference to raising standards, driving creativity, fostering engagement and boosting wellbeing.

For many years school learning environments have been overlooked. This is despite learners and teachers saying that they play a really important role in supporting education. It is therefore crucial to focus on them over the coming years to create educational excellence everywhere.

Perhaps most concerning of all is that there is little to no research on the physical condition of our schools, the views of teachers on them, and the value that learning environments play in enhancing education.

This report aims to address this gap. For the very first time, we have brought together the existing evidence on the current physical condition of schools and, most crucially of all, we have taken the time to ask teachers what they think. Through doing so we have been able to build a picture of what our schools look like and what physical factors teachers feel are essential to creating an effective learning environment.

We also want to inspire schools and the wider education sector. There are some incredible schools out there who are working hard to improve their learning environments. And they are reaping tremendous rewards too.

This report showcases a few of these innovative schools. We also take a look at the growing number of schools who have been proactive in securing funding for projects that go beyond that made available by the Department for Education. We hope this report will help more schools make their learning environments a priority and a reality.

2. The state of play: the existing evidence and teacher views

This section brings together the limited evidence on the current physical condition of schools, and also introduces new research commissioned by Smarter Spaces. We have gone beyond the existing body of research by asking teachers what they think so we can build a full picture of what our schools look like and the physical factors that teachers feel are essential for creating an effective learning environment.

Bringing together the existing evidence on the condition of schools

Research undertaken by the Royal Institute of British Architects (RIBA) in 2014¹ found that 80% of schools are operating beyond their life cycle — suggesting that the majority of our schools are unable to provide effective learning environments as they are simply past their best.

Understandably, the Government is investing money in the regeneration of schools, but experts fear that our new schools fail to offer an effective learning environment. RIBA's research¹ found that schools being built now are 15% smaller than those built under the Building Schools for the Future programme that was abandoned in 2010. This is a real issue as overcrowding in narrow corridors can exacerbate bullying and harassment of learners.

Meanwhile, a recent survey of architects by *The Architects' Journal* in 2015² found that 90% are concerned about the future of school design, and nearly half said the last school they built was not good enough.

Teachers are also voicing concerns about school design. A survey by the Association of Teachers and Lecturers in 2010³ found that 96% believe a school's learning environment has an influence on pupil behaviour. More than half of teachers questioned by the British Council for School Environments in 2010 did not think their school could "be adjusted to support delivery of the curriculum", and over a quarter reported that their schools did not offer an "effective" learning environment.

Clearly, if we want engaged, happy and confident learners we need to ensure they are learning in schools that are built to good specifications and offer the flexibility to deliver the full range of the school curriculum.

The good news is there is real potential for schools to have inspiring learning environments that enhance learning, teaching and wellbeing. In fact, Professor Peter Barrett at the University of Salford⁴ found that moving an average learner from the least effective to the most effective learning environment could increase attainment by 1.3 sublevels — not bad when you think a child should progress by 2.0 sublevels each year.

Teacher perceptions on the current condition of schools

As part of the Smarter Spaces campaign, we commissioned a survey of teachers' attitudes to learning environments⁵. We received 184 responses from teachers working in both primary and secondary schools — representing a range of schools including maintained, academy, independent, further education colleges and special schools.

"It should be a school priority to improve the learner environment." Fewer than 4% of teachers described the current condition of UK schools as excellent with a lack of space and poor layouts being given as reasons for teachers' discontent. Even in new schools there was a feeling that schools were not providing effective learning environments, with one teacher saying that their school has a "poor design despite being a new build in 2013".

There was a strong consensus — over 80% of teachers — that learning environments have an impact on learners' attainment, engagement and behaviour. When asked what physical factors would improve their learning environments, teachers cited more natural light, more storage space, writable surfaces and regulated temperature.

"We have managed to refurbish the library ... it has made a huge difference to how it is now used by staff, pupils and parents."

Which of the following physical factors would improve the learning environment of your school? (figures are percentages)

Regulated temperature Improved acoustics Writable surfaces Ergonomic furniture Breakout space Flexible layout Storage space Natural light

Teachers who had been involved in the design of their building were much more positive, an example comment being: "It was part of the Building Schools for the Future programme. Staff were allowed to be fully involved and had great involvement in the planning. Success!" We also received positive comments from schools that had been able to transform their learning environments, showing that positive changes — whether small tweaks or major overhauls — have a significant impact on the school community.

"Our pupils would benefit from some colour and vibrancy during their school day."

Shockingly, only one in five teachers had applied for additional funding for their school and just 13% of those had been successful — with only 4% receiving all the funding requested.

3. Creating engaging learning environments

Despite the challenging backdrop we have outlined in the previous sections, there are inspiring examples of innovative schools creating engaging learning environments. Whilst some have undertaken major overhauls, others have adapted their existing learning environments as showcased below.

Rosemary Works Primary School



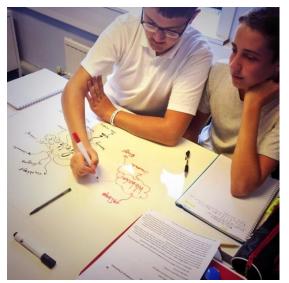
Rosemary Works Primary School is a small independent school in London. In May 2015, it won the Colour in Commercial Architecture and Buildings category in the Dulux Let's Colour Awards.

A small, but personal school, Jacqueline Logue, Director of Rosemary Works Primary, says its philosophy openly encourages "being different". A key part of the school's approach is a recognition that its spaces not only have to support its "maverick" style of education — but also, to create an environment that pupils respect and feel proud to be a part of.

A critical factor in the development was the engagement of pupils, staff and parents in the design process with the architect, Aberrant Architecture. To take pupils through the design journey, the school ran a number of workshops to draw out their creativity.

The impact has been considerable. With strong colour schemes and 'zoning' throughout the school, pupils and teachers have seen a drastic change in the way they interact with their spaces to support learning. The school commissioned a second project over the summer of 2015 and plans on creating a rolling plan of redecoration every year to keep the environment fresh and vibrant.

Isle of Portland Aldridge Community Academy



The Isle of Portland Aldridge Community Academy is a co-educational school and sixth form in Dorset. It has created a unique space to support learning which has been designed by its students on a modest budget.

The project was initiated by the Academy's Director of Change and Innovation, Gary Spracklen. "Let's be clear," he says, "this is not about asking children what they want, or what they think. It is asking them to be action researchers, to find out what has been effective elsewhere; to reimagine that in their own school context; and to be in a constant cycle of doing

this iteratively. We are not just doing this once and then ossify — the constant here is not some new model of learning that emerges, it is the continued questioning of how good learning might be".

As part of their research, students visited institutions who embrace new approaches to design. This included Google HQ and Mind Candy in London, as well as numerous Skype and Google Hangout calls to Australia, Sweden, Australia and the United States. Throughout the project, students were encouraged to continually reflect on the question, 'what can make my learning better?'

The spaces created include the New York and Sydney offices which provide a global context to the students' learning. There are also larger learning spaces with flexible furniture, write-on surfaces and a Twitter-booth to create inspiring spaces to learn.

While it is only early days for the sixth form, teachers and students are already reporting that their new environment is making them feel happier, more engaged and highly motivated to learn.



Cadoxton Primary School



Cadoxton Primary School is in Barry, Wales. Over the past four years, the school has worked to develop optimum learning spaces for its pupils, with its Victorian Building transformed to allow for flexibility, independence and real engagement in 21st Century learning.

"We went beyond asking 'how can we tinker with what we've already got?' to 'what would the perfect space look and feel like?'", says Janet Hayward, Headteacher of Cadoxton Primary School, who was one of three UK teachers recently shortlisted for the Varkey Foundation Global Teacher Prize.

The school initially applied this approach to its Year 6 classrooms and has since rolled the model out across the whole school, making adaptations as they go but sticking to its basic approach of:

- Clutter-free spaces with minimal furniture to allow for flexibility.
- Eight computer workstations at the back of each classroom.
- A 'magic paint' white wall to allow for teacher demonstration as well as projecting iPad work via Apple TVs and co-constructing learning.
- Sofas and bean bags as well as table and chair configurations that can be used flexibly.

The transformation in the school's learning environments has been a "process that has gone hand-in-hand with transforming the entire learning experience". The school has worked with learners, teachers and many other partners which has impacted on its Key Stage 2 results moving from a Core Subject Indicator of 60% to 90%.



Behaviour and happiness have also dramatically improved as has attendance, which has increased from 90% to 94.5%. Four years into this journey of change, Ms Hayward says the challenge is "to keep the revolution moving — working with our pupils to provide them with the best spaces to allow them to achieve their very best".

4. Supporting the development of learning environments

Over the last Parliament, the Institute for Fiscal Studies found that education capital spending fell by 34% in real-terms. This is clearly having an impact on schools with a recent survey by the Association of School and College Leaders in 2016⁶ revealing that over three quarters of schools reported financial pressures and that these are having a detrimental effect on the education they are able to provide.

Given this context, schools do not readily have funds available for school projects including the development of effective learning environments and it is notable that very few are proactively applying for additional funding, perhaps not surprising with our survey results revealing that just 13% are successful.

Despite this, there are schools that are proactively securing funding. Exciting online tools such as Go Fund Me, Justgiving, Hubbub, Crowdfunder and WeFund are opening up new avenues for schools to pursue. These allow people to donate straight from their bank accounts and are a great way of raising money for a new ICT suite, playground equipment or new books. What is more, schools can use social media channels such as Twitter and Facebook to spread the word far and wide.

According to School Angel, a charity that places a "shop button" on school webpages — linking schools to online shopping websites that will pay the school a fee every time someone clicks — a primary school with 300 pupils could hope to raise up to £24,000 a year.

Alongside these new innovative platforms, schools are also pursuing more traditional routes including grants, competitions and local community fundraising. Below we showcase some of these schools and what has worked for them.

Growing with a grant by Alan Tilley, Assistant Head of Southbrook School



We have had a school allotment for over six years now and it is accessed by all pupils throughout the week.

Last year, I applied for an Enterprise Grant from the local authority and put together a bid aimed at developing enterprise and employability skills in Key Stage 4. The plan was to develop the allotment, introduce a greenhouse, an additional polytunnel, and fruit cages and increase the produce grown so that we could start

selling to the public and start to make our school kitchen self-sustaining.

We were awarded £10,000 — most of this has been spent on developing the site and preparing the allotment for the increase in production. Pupils have been involved at every step of the development and our horticulture class has been influential in getting everything ready to plant. Pupils in Year 11 have already sold produce to the community and used these experiences to plan



how we can best take advantage of our local market in the summer of 2016 when we harvest the produce. In addition to this, pupils have been helping to build the greenhouse, fruit cages and polytunnel along with volunteers from our local Co-op in Exeter and have been learning many new skills.

What started as a simple idea has developed into something much greater and has so far involved all the pupils in Key Stage 4 and teachers from right across the school. It is going to be a two year project but one that should be able to go on into the future as we aim to sell the produce each year to make this sustainable for future year groups.

Working with your local community by Jagdeep Birdi, Head of Colville School

Built in 1875, Colville Primary School underwent a number of design changes and has grown dramatically from 250 learners to 400 between 2014 and 2016.

When I joined Colville our learning environments were unloved and the school was the last choice for many parents. We had to find ways to resolve that.



I strongly believe the learning environment is key to how children think and feel so I was determined to find the space for a school library. I moved out of my office, which created an empty space that we could turn into the library. All we needed to do next was design the library, decorate it, build the furniture and find some books.

It was cheapest to work to our own design, so we hired a carpenter to build book shelves and seating. Our parents and governors also helped out by donating materials and creating art work. When the library was built, local schools got involved with a book drive. The result was incredible: mountains of books! Over a number of weekends staff and volunteers came in to help us catalogue the books - the response was amazing.



It was the first time we had applied for funding, so it was quite difficult, but we spent a lot of time researching our options. One of our teachers led the application and managed to secure £16,000 for shelves, decorations and books from the Foyles Foundation. We also received £6,000 from the Junior League of London.

We have moved from the bottom 200 schools to the top 200. In year 6 we have achieved 100% level 4 reading and 100% 4 B+ for over three successive years in our SAT results.

The library is the first thing we show people - everybody loves the learning environment we have created. It has become an integral part of our whole offer to ensure learners have the opportunity to love literature.

If you get rejected for funding be persistent - we now have a culture where we apply for lots of funding and this is bringing projects across the school to life.

Share what you are doing with the local community — you'll be amazed who offers to help.

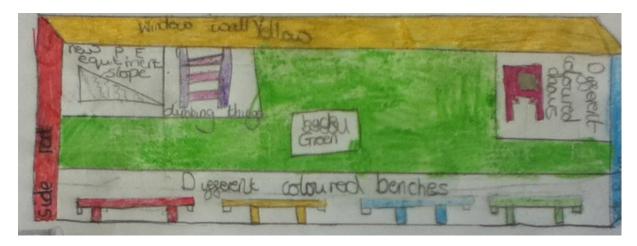
Winning the Young Designers Competition by Hannah Gregson, Teacher at Springfield School

The 2015 Young Designers Competition was a really good opportunity for the children to literally make their mark on the school. They took photos of areas around school that they thought would benefit from a make-over then came up with a lot of ideas about how they would improve them. They decided that our assembly hall was unwelcoming and scruffy so they came up with exciting ideas to change it.



The children wanted to use four main colours, red, yellow, blue and green — our school house colours. They also decided that they wanted a wall mural representing life at school — our achievements and successes.

The hall is used for assemblies, clubs, meeting, presentations, PE and lunches, so every member of the school community, including parents, uses it every day. This is why it was so important for our school to make a good impression on everyone who visits.



The children were delighted when they won. They loved meeting the designers and sharing their ideas with them. They felt very involved and had a brilliant insight into what having a job in design is like. They gave the designers a tour of the school and felt very included and important in such a big decision.

It has been a fantastic experience for all involved and has really helped the children have a voice in school improvement as well as making them take ownership over their school. It is an experience we would recommend to anyone.

Next steps

Over the coming months we will be building on this work to develop new ways to help schools access the money they need to fund school projects, including the development of their learning environments.

This toolkit will draw on exciting projects that others have undertaken and we will also be building partnerships with new online funding platforms to unlock the potential these have for schools across the country.

Conclusion

This report sought to address the gap in the existing evidence on the current physical condition of our schools by bringing together the existing evidence and asking teachers what they think are essential to an effective learning environment.

Through doing so we have been able to build a picture of what our schools currently look like and how they should look in the future.

Of note, this report concludes that:

- Fewer than 4% of teachers described the current condition of UK schools as excellent
 with a lack of space and poor layouts being given as reasons for teachers' discontent.
- An overwhelming 80% of teachers said that learning environments have an impact on learners' attainment, engagement and behaviour.
- When asked what physical factors would make their learning environments more effective, teachers cited more natural light, more storage space, writable surfaces and regulated temperature.
- One in five teachers have applied for additional funding for their school and just 13% of those have been successful with only 4% receiving all the funding requested.
- Given the constrained funding environment, schools need more support than ever to proactively identify additional funding beyond the Department for Education to develop effective learning environments.

References

- 1 Royal Institute of British Architects (2014) 'Building Better Britain: A vision for the next Government'.
- 2 Architects' Journal (2015) 'Architects say new schools fail to make the grade'.
- 3 Association of Teachers and Lecturers (2010) 'School buildings not fit for learning'.
- 4 Professor Peter Barrett, Dr Yufan Zhang, Dr Fay Davies and Dr Lucinda Barrett (2015) 'Clever Classrooms: Summary report of the HEAD Project'.
- 5 Smarter Spaces (2016) 'Teacher perceptions on the current condition of schools.' Survey conducted by EdComs.
- 6 Association of School and College Leaders (2016) 'Survey reveals scale of education funding crisis'.

About the Smarter Spaces Campaign

We launched the Smarter Spaces campaign last year to grow understanding of the current condition of learning environments and the physical factors that can support education. Beginning at a regional level, we have listened to those who have transformed their learning environments and truly believe in the value of creating Smarter Spaces in their schools.

Our vision is to enable:

- Schools to use their environment as an asset to support learning and teaching.
- Learners to take responsibility for, and pride in, their learning environment having been actively involved in the design process.
- Teachers to be trained to maximise the potential of the learning environment.
- Local businesses to contribute to the development of great learning environments.
- School assessments to consider the use of the environment as a key indicator in the experience of education.
- The education sector as a whole to share their experiences of great learning environments, across the country and world.

To do this we will:

- **Empower** learners and teachers to take an active role in the design of their learning environment.
- **Support** the research industry to understand the importance and effect of colour and design to support learning and teaching.
- Work with key government departments and education bodies to raise the agenda for better learning environments, as well as the creation of funding routes to deliver them.
- Develop all the necessary products and services.

Over the past year the campaign has grown into a coalition of influential figures who are collectively committed to the campaign, including Janet Hayward, the Schools Network, Teach First and CBI to name a few.

Having received this tremendous support, we believe we are ready to take the campaign nationwide – growing understanding of Smarter Spaces further while inspiring and supporting schools across the country to make the change – be it small tweaks or major overhauls.

Our goal is to be the consistent voice in education calling for effective learning environments.