The State of Learning Spaces

How school leaders feel about their learning environments, and the changes they want to make

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Foreword

DR JOANNE LADDS

Our work with more than 800 schools, backed by a growing body of scientific evidence, makes clear that the physical learning environment has important impacts on the students who use them. But how well are schools' physical environments currently supporting students, and where are the most urgent changes needed? We conducted this research to find out, and uncover insights that can guide schools into the future.

Our research forms part of a broader picture of the current state of schools in the UK and beyond. It is **well reported**[1] that many school buildings are in poor shape, particularly following the RAAC crisis. As the research findings in this report show, many school leaders feel that their learning environments are not good enough, and should be a higher priority.

Students deserve better. They deserve to learn and grow in what we call Thriving Spaces™ – spaces that support their focus, their wellbeing and their academic performance. Our hope is that this research will give schools the inspiration and information they need to take the next step in helping their spaces – and students – thrive.

We also hope this research will feed into the conversation – and the growing community of forward-looking leaders – focused on reimagining education for the times we are living in.

Executive summary

68% of leaders use negative words to describe their classrooms.

As many as **44%** of leaders believe their current learning spaces are preventing students from reaching their full potential.

Schools are taking action to improve their learning spaces – **2 in 5** school leaders say their school underwent significant refurbishment work in the last year.
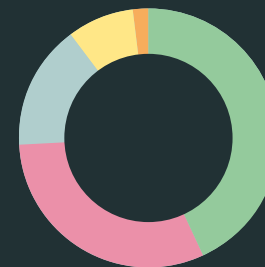
But it's not enough - **76%** of leaders believe improving learning environments should be a higher priority for their school.

The majority **(56%)** of school leaders feel their current learning environments aren't actively supporting students with neurodiverse needs.

Who we spoke to

We conducted an online survey during May-June 2024, with a total of 210 senior leaders responding (and 171 completing the survey). They came from a mix of state and independent schools, in the UK and internationally.

We also conducted phone interviews with a handful of senior leaders from a range of independent schools.

Schools

- **42%** UK State School
- **32%** UK Independent School
- **16%** UK Network of Schools /Trust (State)
- **8%** International School
- **2%** UK Network of Schools (Independent)

Leaders
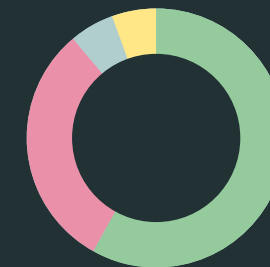
- **59%** Principal/Headteacher/ Deputy Head
- **30%** Other senior leader
- **6%** Bursar/Head of Facilities
- **5%** Group Head/Executive/ CEO

Locations
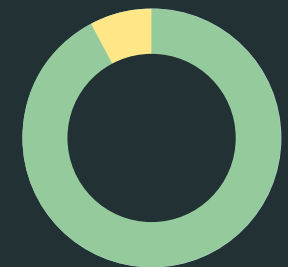
- **92%** United Kingdom
- **8%** International

Today's learning spaces

How school leaders feel about their current learning spaces

The verdict on today's school classrooms? Could do better.

We asked school leaders to describe their current classrooms in their own words.

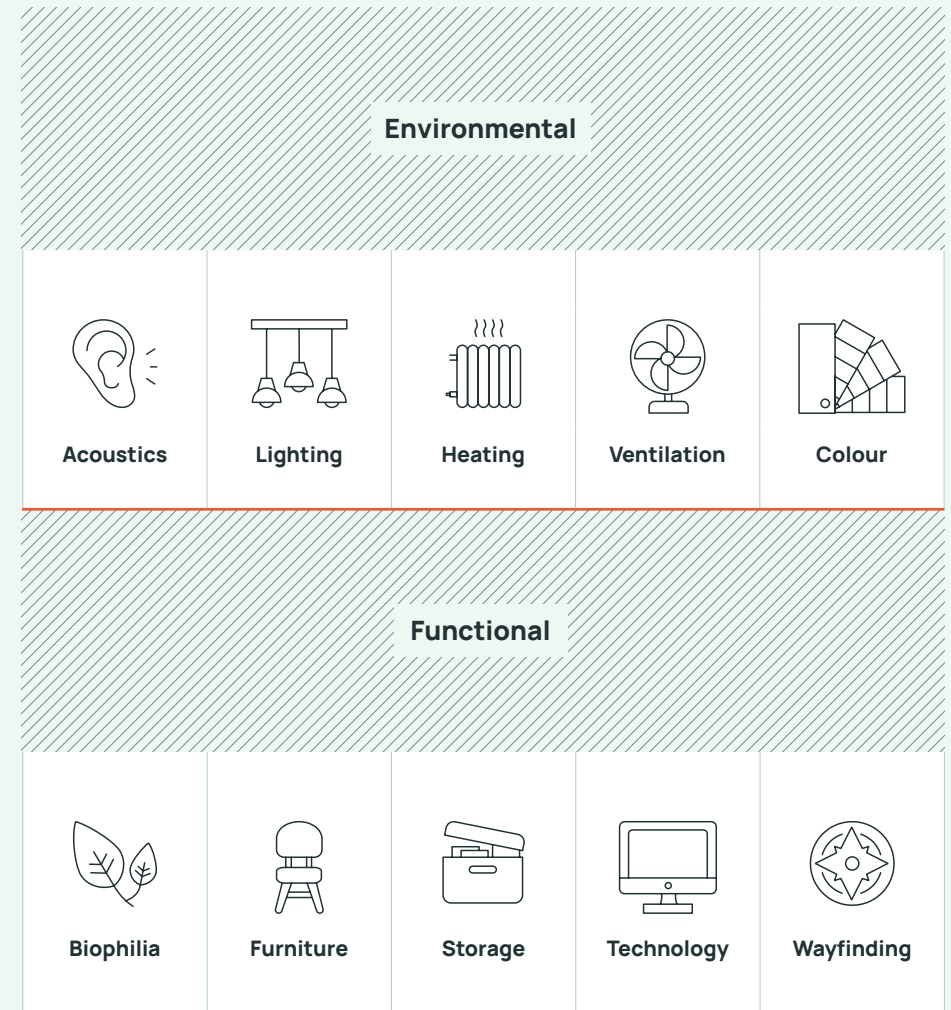The results speak for themselves: while there are some positive descriptors ('modern', 'bright', 'welcoming'), **the words that appeared most frequently were negative ones.**

APPROPRIATE
HOT
ENGAGING
CLUTTERED
BRIGHT
GOOD
VARIED
OLD
AIRY WARM
UNINSPIRING
WELCOMING
FUNCTIONAL
STANDARD MIXED
LEARNING
EQUIPPED
COMPACT
VIBRANT
TRADITIONAL
SMALL
SPACE
MODERN
COLD
INSPIRING
COMFORTABLE
BUSY
HISTORIC
CRAMPED
CALM
DULL
SAFE
CLEAN
PURPOSEFUL
COLOURFUL
NEW
OLD FASHIONED
TIRED
DATED
BLAND
TIGHT BASIC
LARGE
ORGANISED
TATTY TIDY
LIGHT
UNLOVED
SPACIOUS
COLLABORATIVE

The 10 features of a learning environment

We have identified 10 features of any learning environment that have an impact on students' experience.

Environmental

Acoustics	Lighting	Heating	Ventilation	Colour

Functional

Biophilia	Furniture	Storage	Technology	Wayfinding

Today's classrooms are underperforming on some of the most important features

While the lighting and acoustics of classrooms are generally rated highly by school leaders, other important features are letting these spaces down.

Ventilation has been found by scientists to have a notable impact[2] on test scores. Worryingly, school leaders scored their classrooms' ventilation just 5.5 out of 10.

Biophilia, too, has been found to reduce stress and improve test scores[3]. Yet this feature scored just 3.1 out of 10, indicating a significant missed opportunity to support students.

Storage is also a problem area, scoring 5.4 out of 10. This suggests that classrooms are more cluttered than they should be, which can negatively impact[4] levels of focus.

Social spaces are being overlooked

In our work with schools, we often see investment going towards science, sport and reading spaces – and the good news is that this is paying off. Schools leaders gave libraries, creative spaces, sports facilities and science labs generally positive ratings.

Social spaces, on the other hand, are not up to scratch – they were rated just 5.3 out of 10 (4.8 in state schools). Research suggests that it is important not to overlook social spaces in school environments, because any poorly designed space can be dysregulating – for example due to poor acoustics[5] or lighting[6]. Dysregulation is associated with stress and other mental health issues.

"Social spaces aren't prioritised because people think they don't produce results. But they should be given more importance. Without them, there's no proper socialisation spaces for particular year groups."

CHRIS STALEY
COVENTRY SCHOOL FOUNDATION

How would you rate the following aspects of your classrooms?

Environmental	Acoustics	Lighting	Heating	Ventilation	Colour
	6.7	7.0	5.8	5.5	6.2
INDEPENDENT	6.8	6.9	6.2	6.7	6.1
STATE	6.6	7.0	5.6	4.9	6.3

Functional	Biophilia	Furniture	Storage	Technology	Wayfinding
	3.1	5.8	5.4	6.4	6.5
INDEPENDENT	3.6	5.9	5.7	7.0	6.6
STATE	2.9	5.8	5.3	6.0	6.5

Overall, how would you rate the following spaces in your school?

	Classrooms	Science Labs	Libraries/Reading Rooms
	6.2	6.5	7.1
INDEPENDENT	6.5	7.5	7.6
STATE	6.1	6.1	6.9

	Creative Spaces	Social Spaces	Sports Facilities
	7.0	5.3	6.7
INDEPENDENT	8.0	6.3	7.3
STATE	6.5	4.8	6.5

Today's learning spaces are a picture of untapped potential

For students

44%

of leaders believe existing learning spaces are preventing students reaching their full potential.

"The environment is your curriculum, and your curriculum is your environment. The potential impact on students can't be underestimated."

DR ADAM ENGLAND **NOBLE + EATON**

For schools

78%

of leaders disagree that existing learning spaces are a main reason for parents to choose their school.

"Parents are discerning. How can you make sure that your school is cutting edge? One way of doing that is through a cutting edge curriculum, but you've also got to look at a cutting edge environment."

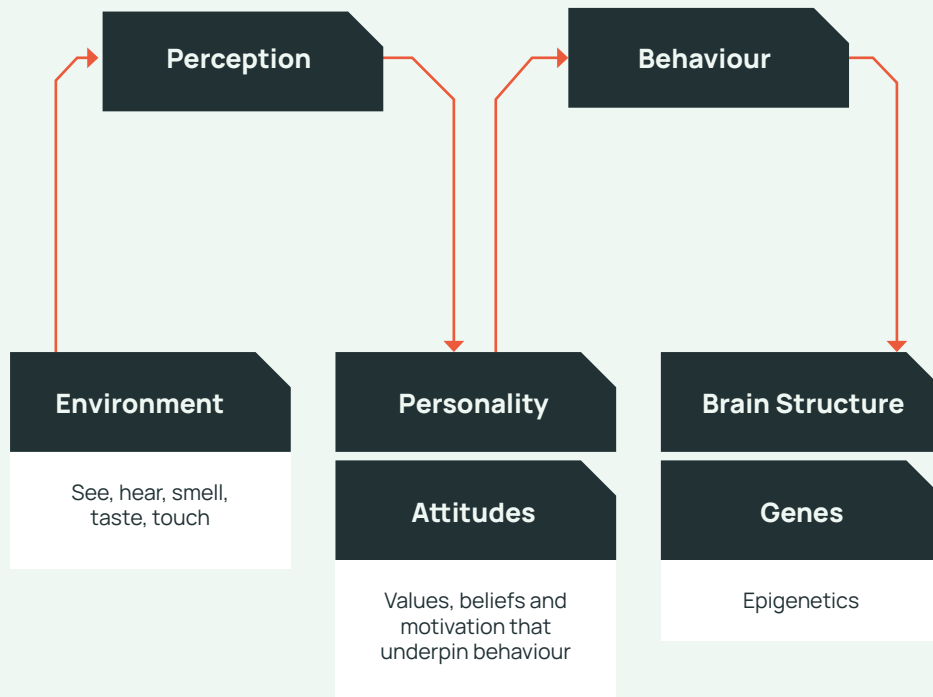CHARLES BAILEY **HARROW SCHOOL**

Why learning spaces matter

The physical environment can
help students thrive

Learning spaces should be places where students thrive

We want to see a world where school environments inspire all pupils to learn and thrive. Pedagogy (the 'how') alone won't deliver the education pupils need – the spaces they use (the 'where') also need to be reimagined. That's why we create Thriving Spaces™ - spaces designed to inspire learning for all.
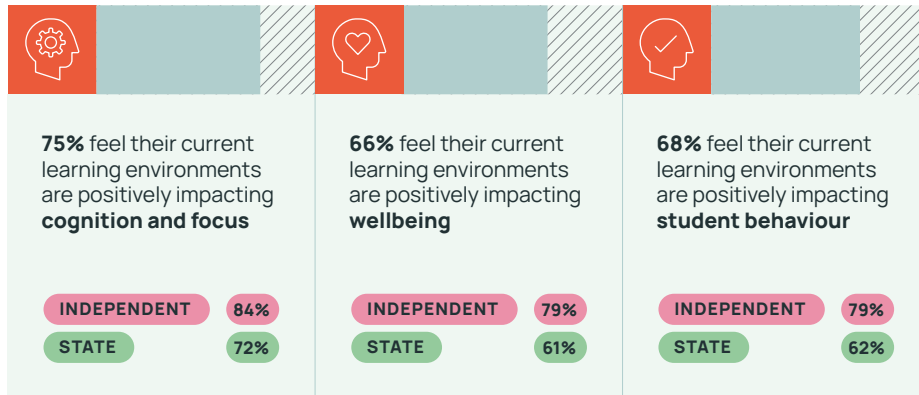
The model below outlines how the learning environment impacts students' experience – and ultimately, their behaviour.

Perception

Behaviour

Environment

See, hear, smell, taste, touch

Personality

Attitudes

Values, beliefs and motivation that underpin behaviour

Brain Structure

Genes

Epigenetics

Thriving Spaces™ have four important impacts on students:

Cognition-Boosting

Raising the cognition levels of all learners.

Temperature, light and noise have a <u>significant impact</u>[7] on learning efficiency.

Wellbeing-Promoting

Creating low-anxiety learning environments.

The physical features of learning spaces, such as acoustics and colour, can <u>stimulate emotions and create a sense of security</u>[8].

Neuro-Empowering

Effectively supporting all types of learners.

Adjusting features of the physical learning environment can <u>improve participation</u>[9] among neurodiverse learners.

Performance-Improving

Positively impacting student behaviours & attitudes.

Factors such as natural light, temperature, air quality and layout can improve or worsen students' performance <u>by as much as 25%</u>[10].

School leaders underestimate the possibilities for their learning spaces

75% feel their current learning environments are positively impacting **cognition and focus**

| INDEPENDENT | 84% |
| STATE | 72% |

66% feel their current learning environments are positively impacting **wellbeing**

| INDEPENDENT | 79% |
| STATE | 61% |

68% feel their current learning environments are positively impacting **student behaviour**

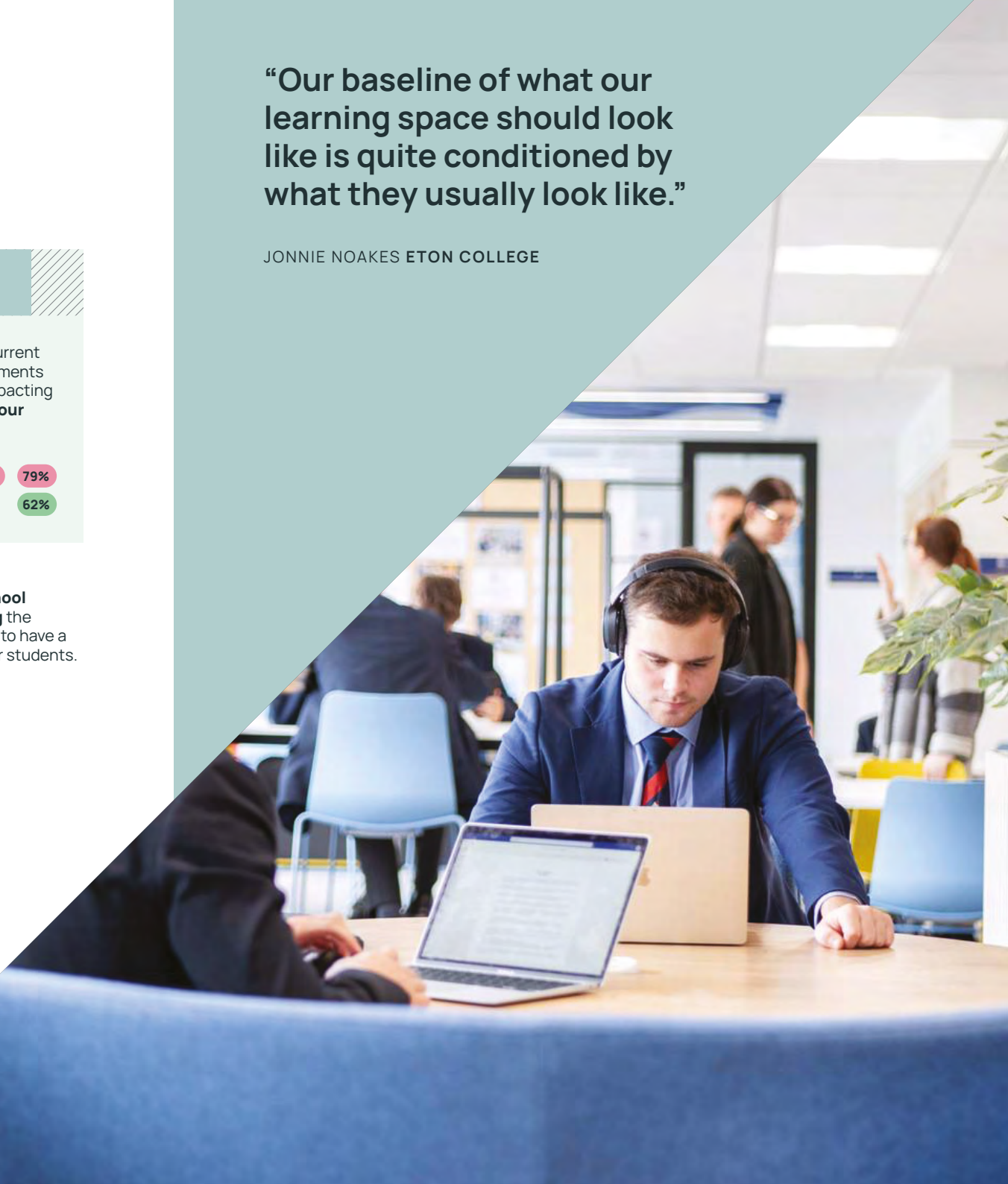| INDEPENDENT | 79% |
| STATE | 62% |

When asked about the impact of their current learning spaces on students' cognition, behaviour and wellbeing, **school leaders were broadly positive.** This is surprising, considering the 'tired', 'small', 'cramped' spaces school leaders told us about elsewhere in the research.

Given this, it seems that many **school leaders may be underestimating** the potential for their learning spaces to have a far greater positive impact on their students.

"Our baseline of what our learning space should look like is quite conditioned by what they usually look like."

JONNIE NOAKES **ETON COLLEGE**

In contrast, leaders recognise that neurodiverse needs are going unmet

56% of leaders feel their current learning environments aren't actively supporting students with neurodiverse needs

| INDEPENDENT | 39% |
| STATE | 65% |

Thanks to the much-needed attention on neurodiversity in recent years, school leaders are far more aware of neurodiverse students' needs.

Their answers suggest that **most learning spaces are not meeting these needs**, with more than half of school leaders feeling that their neurodiverse students are not actively supported by their learning environment.

"We talk about neurodiversity more and more. The physical environment may too often be overlooked; it's a critical aspect of supporting learning."

RICHARD NICHOLSON **FUTURE FWD**

The environments of tomorrow

School leaders' plans and priorities for the future

Improving physical environments is top of mind for school leaders right now

Given the huge impact the physical environment has on students, we are pleased to see that as many as three quarters of school leaders believe **improving learning environments should be a higher priority for their school**. Many schools are already putting this intention into action, with 58% exploring a significant refurb/rebuild in the near future.

Perhaps unsurprisingly, there is a gap between aspiration and action for state schools, who see a greater need for improvement but have fewer plans to take action.
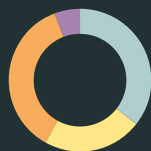
76%

of leaders believe improving learning environments should be a higher priority for their school

| INDEPENDENT | 69% |
| STATE | 80% |

59%

are currently exploring a significant refurb/rebuild of learning spaces in the near future

| INDEPENDENT | 73% |
| STATE | 52% |

- **35%** Yes, we are in conversation with external contractors
- **24%** Yes, we are having internal conversations
- **35%** No, we have no plans at present
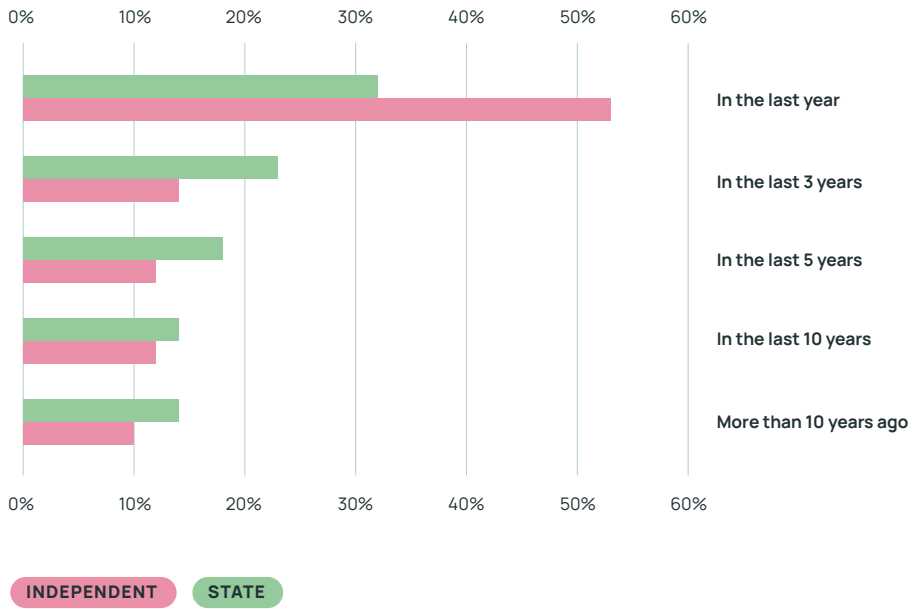- **6%** I'm unsure whether or not plans are in place

Many schools are already making changes

The majority of independent schools have **already taken action**, with more than half of school leaders saying their school has undertaken a refurb or rebuild within the last year.

State schools are moving more slowly, though changes are happening: almost a third have seen a significant refurbishment in the last year.

> When was the last time one or more of your learning spaces underwent a significant refurbishment or rebuild?

In the last year

In the last 3 years

In the last 5 years

In the last 10 years

More than 10 years ago

INDEPENDENT **STATE**

"If you're striving for excellence, you've got to make sure that your environment reflects that aim. Your built environment says a lot about you and the standards that you hold."

CHARLES BAILEY **HARROW SCHOOL**

School leaders see where improvement is needed, but overlook some key features

School leaders see an urgent need to improve **ventilation** (62%) and **biophilia** (45%). They are right to focus on these areas, as they can impact academic performance and wellbeing.

However, some important features are being overlooked. Just 27% of school leaders think **storage** would make their learning spaces more effective, despite giving their current storage a low score (see page 6). Removing clutter would benefit neurodiverse students[11] in particular.

Wayfinding is another under recognised area of impact. Helping students navigate their school can support feelings of empowerment and offer a higher degree of autonomy, allowing students to focus on what's really important.

💬 **Which of the following – if improved – would make your learning spaces more effective?**

Environmental	Acoustics	Lighting	Heating	Ventilation	Colour
	26%	37%	38%	61%	29%
INDEPENDENT	33%	39%	33%	46%	28%
STATE	23%	37%	41%	69%	29%

Functional	Biophilia	Furniture	Storage	Technology	Wayfinding
	44%	49%	26%	43%	16%
INDEPENDENT	54%	59%	22%	46%	17%
STATE	39%	43%	28%	40%	17%

Leaders want new spaces to work for all, not just those on the margins

When asked to choose just one positive impact of a rebuild, school leaders want to see benefits that impact **all their students**. Improving cognition and wellbeing will benefit everyone in the classrooms. Improving behaviour, academic performance and support for neurodiverse students were lower priorities, that will impact fewer students.

Overall, there is a clear focus on **improving the learning experience** for students, rather than using spaces as a recruitment tool for students or staff.

💬 If the rebuild/refurb of your learning spaces could have just one positive outcome, which would it be?

	Improved levels of cognition and focus	Improved sense of wellbeing	Improved support of students with neurodiverse needs	Improved student behaviour
	28%	25%	9%	9%
INDEPENDENT	26%	19%	11%	2%
STATE	28%	28%	8%	13%

	Improved academic performance	Student retention /recruitment	Staff retention /recruitment
	15%	6%	5%
INDEPENDENT	20%	13%	6%
STATE	13%	3%	5%

Do you want to create thriving spaces?

We're here to help forward-thinking school leaders reimagine their learning environments so that all students can grow and thrive. Our approach is evidence-led, pupil-centric and based on a proven methodology.

Are you ready to bring Thriving Spaces™ to your school? Get in touch with our team of education specialists to find out more about how we can help:

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