

ISA Awards 2024 Case Study:

Innovation in Independent Education

WESTBOURNE SCHOOL

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History of the School

Founded in Cardiff, Westbourne School has grown from a respected local institution into a globally recognised leader in innovative education. With schools in the UK, Sydney and Singapore, Westbourne's reach now spans continents—creating a truly global learning network where students collaborate and share ideas across the world. Its transformation has been driven by a bold vision: to deliver world-class education through cutting-edge technology, research-backed pedagogy, and a deep commitment to preparing students to thrive in a digital, interconnected future.

Despite its international growth, Westbourne maintains a strong focus on personalised education. Small class sizes, with an average class size of only 15, ensure each student receives individual attention, while the global network allows for unparalleled collaboration and cultural exchange. Westbourne students in Cardiff now learn as part of a dynamic, worldwide community of peers and educators.

Originally established with a focus on academic excellence, Westbourne has always been ahead of its time in embracing a forward-thinking educational ethos. Over the years, the school has been consistently recognised for its rigorous academic standards, nurturing environment, and the development of well-rounded individuals. As Westbourne evolved, it cultivated a strong tradition of preparing students for the world's top universities, with 90% progressing to Russell Group universities or elite international equivalents. In 2025, 95% attained A*-B at Sixth Form, 91% A*-B at GCSE, with an average IB score of 37.3.

The school's journey from a single-site institution to a global educational group has been underpinned by a spirit of curiosity, resilience, and ambition. Each new campus—whether in Asia, Australia, or the UK—has been developed with a shared pedagogical philosophy: that innovation and human connection are at the heart of powerful learning. Today, Westbourne continues to honour its Welsh heritage while redefining what a 21st-century education can be, ensuring that all students are equipped to lead, collaborate, and succeed on a global stage.



Rachel Rees
Principal



<https://www.westbourneschool.com>

Aims

At the heart of Westbourne's ethos lies a commitment to innovation, connectivity, and future readiness. The school aims to:

- Break down geographical barriers to education by using technology to create seamless links between schools worldwide.
- Deliver immersive, high-impact learning experiences through the use of AI, virtual reality, and holographic teaching.
- Embed neuroscience-informed practices, including spaced repetition, interleaved learning, and the testing effect, to strengthen long-term knowledge retention.
- Empower students to become global citizens and digital leaders through collaboration, project-based learning, and shared expertise across continents.



Whether through the integration of holographic teaching, the application of neuroscience-based learning strategies, or the thoughtful deployment of classroom technology, Westbourne demonstrates a deliberate, evidence-informed approach to educational innovation. At the heart of this is KnowVa Coach – or KnowVie, as they affectionately call him – Westbourne's proprietary AI exam tutor developed in partnership with Cardiff University's Neuroscience Department and Qinct, founded by INSEAD Associate Professor Adrian Johnson. Drawing on research into the three key drivers of academic success—1:1 tutoring, Mastery Learning, and the Testing Effect—KnowVie delivers infinite practice questions, instant feedback, and deeper learning through Socratic questioning, with early trials showing a 30%+ improvement in grades.

Launched initially for IB Computer Science and Business Management and now supporting over ten Diploma courses, KnowVie exemplifies how Westbourne ensures that innovation serves a clear purpose: enhancing understanding, improving outcomes, and building students' confidence in their ability to shape their own learning journey. This approach reflects the school's belief that technology should not replace teaching, but rather enrich it—making learning more engaging, personalised, and effective for every student.

OUTCOMES

Westbourne's approach has yielded exceptional results in academic performance, student engagement, and global citizenship. Following on from their ISA award, they have just won the Independent School of the Year Award for Best Use of Education Technology in 2025!

Global Teaching Innovation

Through the launch of the "Global Classroom," students benefit from real-time lessons with subject specialists from sister schools around the world. Life-sized, holographically projected teachers engage learners in a way traditional video conferencing cannot—removing barriers to interaction and enhancing teacher presence. Students describe the experience as "incredible" and "game-changing."

Enhanced Learning through Neuroscience

In partnership with Cardiff University, Westbourne developed automated assessment tools grounded in the science of how we learn. Platforms like Century.tech and Mobius help students correct misconceptions quickly and effectively. These tools not only support academic success but also foster student independence and confidence.

Transformative EdTech Deployment

Westbourne is recognised in the EdTech 50 report for its optimal use of educational technology. Tools such as Google Classroom and 3D printing labs enhance subject learning across the curriculum. Robotics programmes (including Sphero and Fable) promote computational thinking from the early years through Sixth Form. Classrooms equipped with dual displays allow absent students to engage with lessons as if physically present.

Academic Impact

During the disruptions of 2020–21, Westbourne was among the few schools in Wales to improve Key Stage 5 results. The ability to link classrooms globally and maintain continuity of teaching through international collaboration was key. Students accessed group tutorials across countries, benefiting from diverse teaching styles and expertise.

Student Empowerment

Students at Westbourne are not passive recipients of technology—they are immersed in a culture that sees them as innovators. They engage in global projects, cultural exchanges, and advanced STEM learning, equipping them with the skills and mindset to lead in the digital economy.

NEXT STEPS

Westbourne School remains committed to deepening and refining its innovative approach to education. Upcoming initiatives include:

- Expanding the use of holographic teaching to more subjects and year groups across its global campuses.
- Continuing research with higher education institutions to explore the intersection of neuroscience and pedagogy.
- Strengthening global project-based learning between schools to promote real-world problem solving and global awareness.
- Increasing student involvement in the design and testing of EdTech tools, fostering a new generation of education technology creators.

As Westbourne continues to push boundaries in the classroom and beyond, it sets a benchmark for how schools can harness innovation not just for novelty, but for tangible, lasting impact on student learning and wellbeing.

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