AV in Education

Audio-visual solutions have become an integral part of the classroom, offering a range of capabilities to support teachers and enhance the teaching and learning experience. This white paper provides analysis based on the findings from the Virtue Technologies' recent Audio-Visual (AV) survey, conducted in November 2024. It highlights the current usage, benefits and challenges of AV solutions in Schools.

The survey highlights the widespread adoption of AV technologies across various educational settings, including Primary Schools, Secondary Schools and Further/ Higher education (FE/HE). AV technologies are now integrated into all classrooms to support teaching methods and the varied learning needs of students.

In Primary Schools, the adoption of AV solutions is well-embedded. Interactive whiteboards and touchscreens have become popular tools, supporting the transformation of traditional classrooms into dynamic learning environments. These tools allow Teachers to present information in visually engaging ways, which is particularly beneficial for younger students whose attention spans are shorter. The interactive nature of these technologies helps to captivate students' interest and encourages active participation in lessons.

High Schools have embraced AV solutions more robustly, with many classrooms equipped with document cameras or digitisers. These tools support a more interactive and collaborative learning environment, catering to the needs of Students who benefit from varied instructional methods. High Schools typically have more comprehensive IT support structures, which ensure that AV equipment is generally better maintained. Any technical issues are resolved promptly, minimising disruptions to the learning process.

Interestingly, 69% of Schools reported using touchscreens in the classroom, reflecting a growing trend towards interactive and digital learning environments. In particular, High Schools showed a strong preference for interactive learning tools in the classroom to drive engagement.

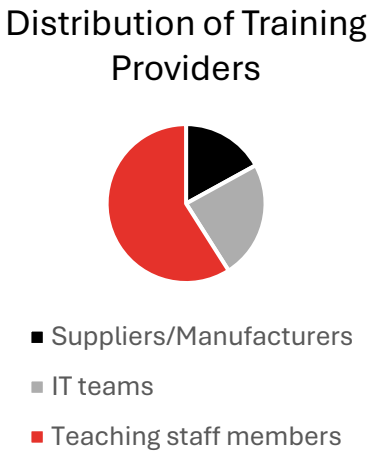
72% of High Schools still use interactive whiteboards in some classrooms. Document cameras and digitisers were also widely used, with 54% of High Schools incorporating them into their teaching practices. Primary Schools still showed significant use of interactive whiteboards, with 36% reporting their use in some classrooms.

Benefits of Audio-Visual Solutions

AV solutions provide dynamic and interactive ways to present information, which can lead to improved Student engagement and learning outcomes. Tools such as touchscreens and interactive whiteboards allow for a more hands-on learning experience, catering to various learning styles. For instance, visual learners benefit from the graphical presentations, whilst other Students may engage more through interactive activities.

Interactive AV tools also enable Teachers to create a more immersive learning environment. By integrating widely available multimedia content such as videos, animations and interactive simulations, Teachers can make complex concepts easier to understand and more relatable for Students. This approach not only enhances comprehension but also fosters a deeper interest in the subject matter.

Professional Development and Teacher Support



The survey indicates that 96% of Teachers receive training on their classroom AV, with 53% of training rated as very effective. Training is delivered by a number of providers, including suppliers/manufacturers (17%), IT teams (24%) or teaching staff members (59%). Effective training is crucial for maximising the benefits of AV solutions. Continuous professional development ensures that Teachers are well-equipped to integrate AV technologies into their teaching practices effectively.

Providing ongoing support and resources for Teachers is also essential for the successful implementation of AV solutions. This support can include regular workshops, online tutorials, and access to a community of practice where Teachers can share best practices and troubleshooting tips. By empowering Teachers with the knowledge and skills needed to use AV tools confidently, Schools can enhance the overall quality of education delivered.

Challenges Faced by Schools

While AV solutions are generally reliable, there are still challenges related to their maintenance and support. Primary Schools reported slightly lower support satisfaction compared to High Schools and FE/HE institutions, possibly due to the absence of full-time on-site technicians. Ensuring that AV equipment is regularly serviced and updated is crucial to prevent technical issues that can disrupt the learning process.

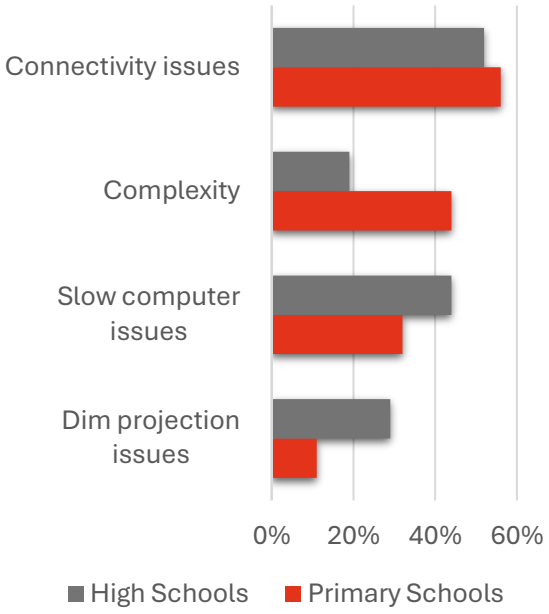
Schools need to establish robust maintenance schedules to address common issues such as software updates, hardware failures and connectivity problems. Regular maintenance checks can help identify potential problems before they escalate, ensuring that AV solutions remain functional and effective.

Disruption to Teaching

Schools generally report occasional disruptions due to AV issues. However, where AV solutions are old or poorly implemented, frequent disruptions can have a significant impact on the teaching process. Proper maintenance and timely support are essential to minimising these disruptions. Schools should have a clear plan in place for addressing AV problems quickly, including potentially having backup equipment available and trained personnel on hand to provide immediate assistance.

Common Issues and Suggestions for Improvement

The survey identified several common issues with AV solutions. Connectivity issues were reported by 56% of Primary Schools and 52% of High Schools, highlighting the need for reliable and robust network infrastructure to support AV technology. Complexity was another concern, with 44% of Primary Schools finding the AV solutions too complex compared to 19% in High Schools, suggesting that simpler, more user-friendly installations are needed. Additionally, 42% of High Schools and 33% of Primary Schools reported issues with slow computers connected to AV solutions, indicating the need for performance optimisations and regular hardware upgrades through a hardware refresh programme. Dim projection was an issue for 29% of High Schools, compared to 11% in Primary Schools, pointing to the importance of regular maintenance or bulb replacement, or a plan for the replacement of projection equipment with interactive screens to ensure clear and bright displays.



To address these challenges, the survey participants suggested several measures:

- Engaging with teaching staff in the selection of new AV solutions is deemed crucial to ensure that the chosen tools meet the specific needs of Teachers and Students.
- Providing ongoing training, including interactive features and teacher-specific use cases, to help Teachers make the most of the available AV technologies.
- Implementing scheduled refresh plans for equipment to ensure that AV tools remain up-to-date and capable of supporting modern educational practices.
- Regular proactive maintenance, such as applying software updates on screens to prevent technical issues and ensure smooth operation of AV equipment.
- Finally, ensuring that solutions are easy to use and consistent across departments or Schools to minimise the learning curve for teachers and students and promote a cohesive learning environment.

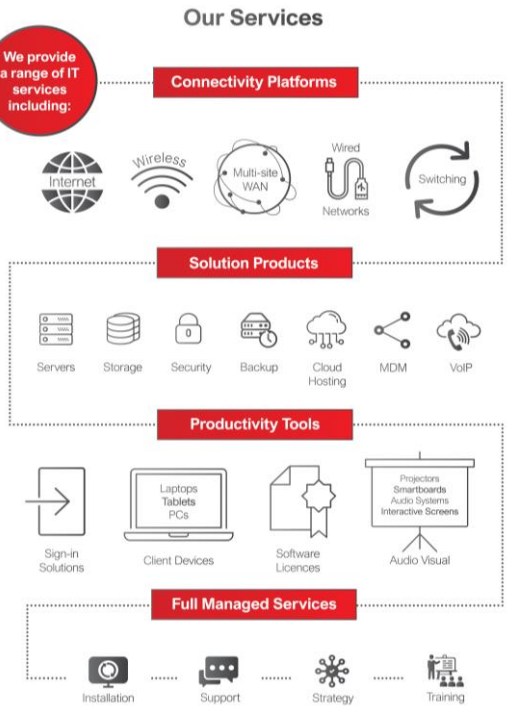
Conclusion

Audio-visual solutions hold significant potential to transform the educational landscape by enhancing teaching and learning experiences. However, it is crucial to address the challenges related to reliability, maintenance and complexity to fully realise these benefits. By following the suggestions for improvement and ensuring effective training and support, Schools can optimise their use of AV technologies and create more engaging and inclusive learning environments.

About Virtue Technologies

Virtue Technologies is an education-focused IT company with over 15 years of experience working collaboratively with Schools to deliver fit for purpose technology solutions.

Founded in 2006 we have gone on to become a leading provider of IT solutions to Primary and Secondary Schools, Multi Academy Trusts, Further Education Colleges and Universities.



About the Author

Will Stead works closely with Schools and Multi Academy Trusts to support the development of IT and Cybersecurity Strategy and Plans. He has over 35 years of experience in the IT industry, with the last 15 years in education.