

How to Assess Your Display Technology Needs—and Choose the Right Solutions for Your Schools



Visual content is a powerful tool for learning and communication. According to video marketing firm Wyzowl, research suggests that only 10 percent of people remember what they hear, and 20 percent remember what they read—but 80 percent remember what they see and do. This is why K-12 school districts are investing a significant portion of their ed-tech budgets on visual display technologies.

There are many display technologies and products available to meet a wide variety of visual learning needs for schools—from projectors and desktop displays to large-format solutions. But the number of options on the market can sometimes seem overwhelming.

When you're evaluating your own schools' display technology needs, what are the kinds of questions you should be asking? And once you have determined your needs, what are the next steps you should take to make sure you're buying the right solutions for your schools?

This white paper aims to help K-12 decision makers address both of those concerns, so the solutions they buy will meet their needs for today and well into the future.

Evaluating Needs: Four Key Considerations

In determining your schools' display technology needs, a number of critical factors come into play, such as how—and where—the technology will be used.

Here are four key aspects to consider.



1. Teaching & Learning Requirements

How you plan to use the technology to support teaching and learning is the No. 1 consideration when evaluating your needs, says Keith Yanke, Senior Director of Product Marketing for Sharp NEC Display Solutions, which offers display technologies and also helps schools design and install their solutions.

For instance, “what type of learning are you trying to achieve within that classroom?” he asks. “Are you looking for a solution that will be used solely for whole-class instruction— or do you want to have smaller groups, each working collaboratively around a display?” The answers to these questions will help you decide how many screens you need within each room: a single projector or large-format display, huddle spaces with their own smaller displays—or some combination of these solutions.

It's also important to understand how teachers and students will interact with the displays. Will the interaction occur at the display itself, or do you want students to be able to interact with displayed content from their desks? Will there be just one smart device accessing the display at a time, or do you want multiple devices to be able to access it simultaneously?

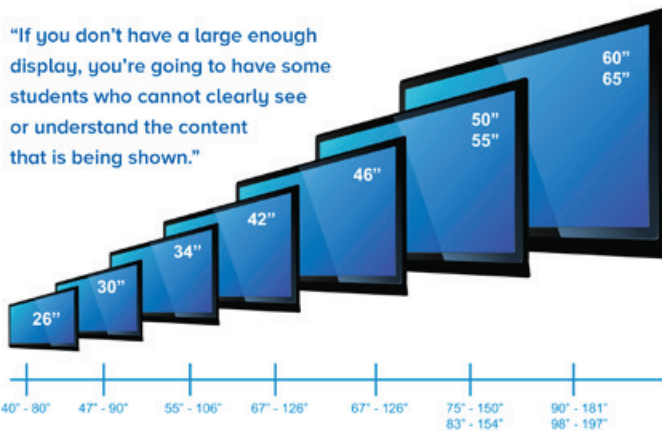
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2. Room Environment

Environmental factors also play a key role in determining your needs. For instance, to choose display products with the correct amount of brightness, it's important to understand the type of lighting that exists where the technology will be located. "Even some large format displays can appear washed out if there is a lot of ambient, uncontrolled lighting," Yanke says.

Factors such as the size of the room, how many students will be looking at the display, and how far away they will be sitting or standing will help you determine the optimum screen size to use. "If you don't have a large enough display, you're going to have some students who cannot clearly see or understand the content that is being shown," Yanke notes.



3. Applications Outside the Classroom

When evaluating your needs for visual displays, don't just think about your needs within the classroom, Yanke advises. There are a whole host of applications for display technologies in locations building-wide, so it's important to consider what kinds of applications you envision outside of the classroom as well.

"We're seeing menu boards in cafeterias, informational displays in lobbies and hallways, and larger, brighter projectors on larger screen sizes within auditoriums," he notes. "Displays in common areas can be used to show the school schedule for the day or week, upcoming events, or important dates to remember. Displays in hallways and classrooms, when connected to the right system, also can be used to communicate in the event of an emergency—helping faculty and students understand what should be done."

With displays located outside the classroom, you also have to consider signal distribution: how you're going to get the content from the source to the display over



a longer distance. Distances of more than 25 feet will require a solution beyond a standard HDMI or DisplayPort cable. There are multiple options available, depending on your budget.

"Longer distances will require signal amplification and maybe using HDBaseT technology to get the signal from point A to point B, or possibly using a fiber-optic solution," Yanke says. "Each option has its own merits and demerits, as well as associated costs."

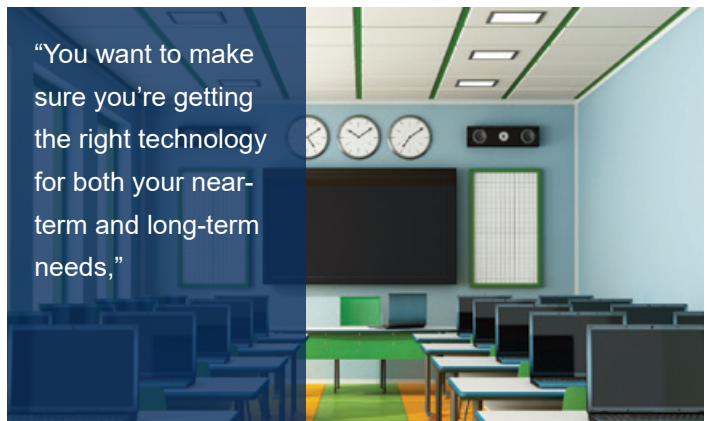
Some of NEC's large-format displays and high-brightness projectors can house the computing source directly within the display itself using an Open Pluggable Specification (OPS) slot. "Providing the media source right at the display eliminates the need for those longer cable runs," Yanke explains. and software solutions serve both students and teachers by boosting connectivity while also being as intuitive and tech-agnostic as possible. These tools ultimately help ensure the attainment of learning goals.

4. Long-Range Plans

Finally, it's important to consider what your plans are for the next three to five years, and not just for the present, to make sure you get the most out of your investment.

For instance: "Do you have any plans to upgrade to 4K displays or move to higher resolutions in the future?" Yanke asks. "If so, will these be placed in every classroom—or will you outfit just a few classrooms that might benefit from a higher resolution, like advanced science classrooms?"

Schools should not purchase display technology that will only get them through the next one to two years. "You want to make sure you're getting the right technology for both your near-term and long-term needs," he says.



A Checklist of Questions to Ask

What do you want teaching and learning to look like in your classrooms—and how should visual technologies support or enhance this experience?

- Will projectors and/or displays be used for whole class instruction only, or would you like multiple groups of students to be able to collaborate around a display simultaneously?
- What kind of interactivity with the displays do you want to enable? Do you want just the presenter to be able to interact with the content, or would you like students to have this ability as well?
- Would you like this interactivity to happen at the display itself, or remotely with input from wireless mobile devices? If the latter, what kind of devices must be supported?

What is the room's environment like?

- Is there a lot of ambient lighting in the room?
- How large is the space?
- How many students will be looking at the display—and from how far away?

What applications beyond teaching and learning do you envision?

- Menu boards for the cafeteria?
- Whole-school presentations in the auditorium?
- Information and wayfinding for students, staff, and visitors?
- Emergency broadcast information?
- Other applications?

What are your long-range plans? For instance, will you have a need for 4K resolution school-wide or in certain classrooms within the next five years?

What is your budget for visual technologies?

Next Steps:

Choosing the Right Vendor and Building a Solution

Identifying your visual technology needs is only the first step. Once you have done this, you have to match those requirements to solutions that can fulfill them. This process begins by choosing the right vendor to help you build the best solution for your schools.

When choosing a vendor, look for a company with extensive experience in the K-12 education market, with experts who can help you develop a solution that matches your needs and your budget. Ideally, the company you choose should offer a wide range of visual technology solutions to meet a variety of needs, and the company should have close relationships with numerous industry partners who can supply the necessary supporting technologies (such as digital signage, control systems, or emergency alert applications).

The vendor you choose also should offer installation services, or at least connect you with a local integrator who can do this work. In short, you'll want to work with a company that is a true partner throughout the experience and can serve as a single point of contact for all of your visual technology needs, so you can avoid the hassle of dealing with multiple vendors and systems.

How Sharp/NEC Can Help

With a long history of selling to the K-12 market and an extensive list of partners and suppliers, Sharp/NEC has experts who can help you design a solution that meets all of your schools' visual technology needs.

Besides offering a broad range of desktop displays, large-format displays, and projectors, Sharp/NEC also can help with the design, installation, service, and support of display technology solutions.

"We can design the systems, and we can act as consultants. With our knowledge and experience, we can make sure a school or district is getting the most bang for its buck," Yanke says, "so every dollar spent is a wise investment."

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