



# INTERACTIVE DISPLAYS

## THE ULTIMATE BUYER'S GUIDE

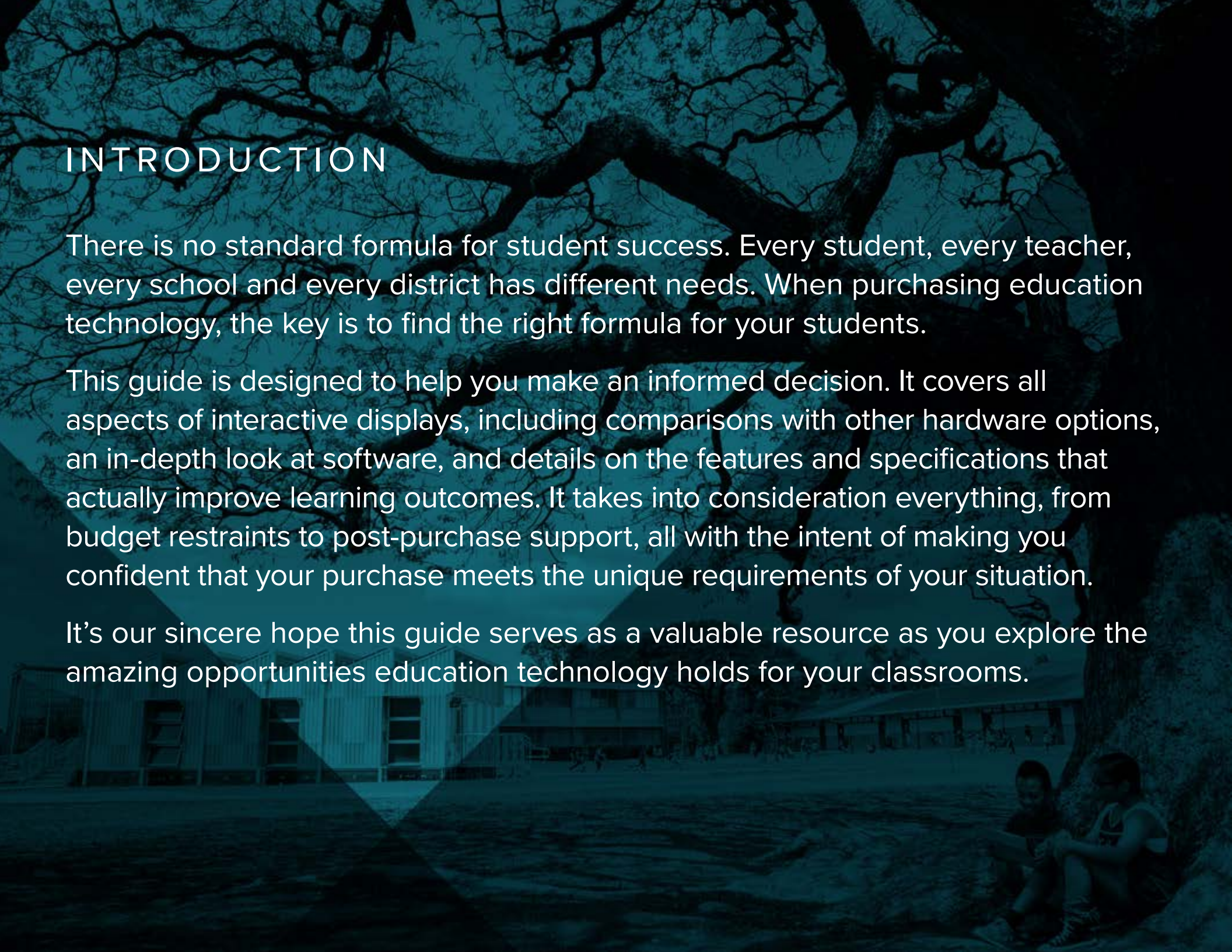


# INTRODUCTION

There is no standard formula for student success. Every student, every teacher, every school and every district has different needs. When purchasing education technology, the key is to find the right formula for your students.

This guide is designed to help you make an informed decision. It covers all aspects of interactive displays, including comparisons with other hardware options, an in-depth look at software, and details on the features and specifications that actually improve learning outcomes. It takes into consideration everything, from budget restraints to post-purchase support, all with the intent of making you confident that your purchase meets the unique requirements of your situation.

It's our sincere hope this guide serves as a valuable resource as you explore the amazing opportunities education technology holds for your classrooms.



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# A CLOSER LOOK AT INTERACTIVE DISPLAYS

There is an array of display technology available for the classroom. Making an informed choice between the many options can be a daunting task. In this section, we'll look at the three types of hardware most commonly found in schools: interactive displays, projector-based technologies and personal/student devices.

We'll compare the level to which each can further educational goals, as well as meet budgetary considerations.



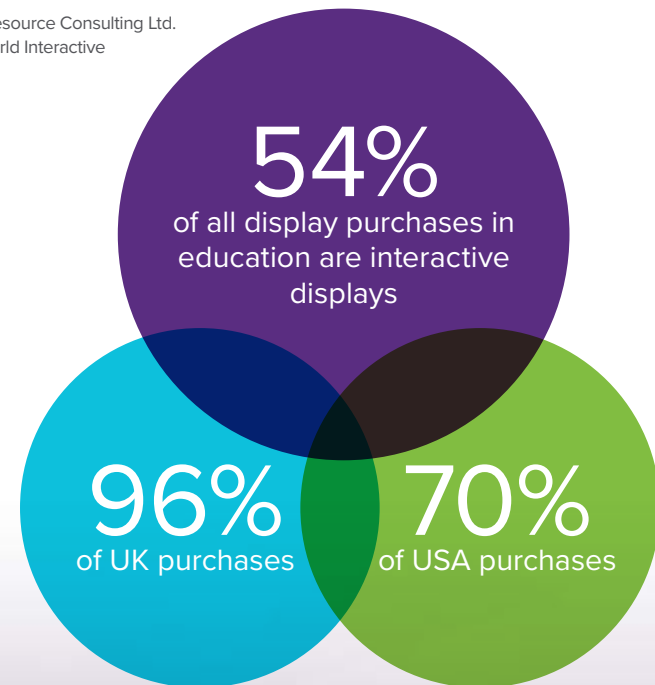
# WHAT IS AN INTERACTIVE DISPLAY?

Interactive displays are LCD or LED screens, and though they look like big TVs, they are far more than that. They are touch- and pen-enabled, meaning that you interact with them as you would a tablet. Multiple people can use them at once, on screens as large as 86" and beyond. You can also connect a computer (or bring other devices together) to share content, as well as work with your online curriculum.

There are many different makes and models of interactive displays that offer a broad range of features, functionality, sizes and learning experiences.

## The rise of the interactive display\*

\* All data from Futuresource Consulting Ltd.  
Quarter 3, 2016 World Interactive  
Displays report





# THE POWER OF INTERACTIVITY

The key difference between an interactive display and a regular TV display is right in the name: interactivity. It's easy to gravitate toward standard TV displays because they're readily available, likely less expensive and often from well-known consumer brands. But interactivity is a powerful way to engage students and encourage participation.

In an interactive display, teachers have a tool that supports blended/hybrid, whole class, small group and individual learning, and easily transitions between the three. It can be a place for teachers to present and guide learning, but also a place where students work together, interact with content and problem solve. Different learning types, different teaching styles...they all find a home on an interactive display.

\* Fiorella & Mayer, "Effects of Observing the Instructor Draw Diagrams on Learning From Multimedia Messages" in Journal of Educational Psychology, 2015

\*\* Zakara Tormala, Stanford, 2014 [bloomberg.com/news/articles/2014-07-10/say-it-with-stick-figures-your-crude-drawings-are-more-effective-than-powerpoint](http://bloomberg.com/news/articles/2014-07-10/say-it-with-stick-figures-your-crude-drawings-are-more-effective-than-powerpoint), Stanford, 2014

“Watching instructors draw illustrations as they orally explain a topic results in deeper learning than giving the same oral explanation for already drawn illustrations”\*

“Watching people writing out the content helps people remember more, not only immediately after, but also after a period of time.”\*\*



# INTERACTIVE DISPLAYS VERSUS PROJECTOR- BASED TECHNOLOGIES

## Projectors cost more than you might think

The initial purchase of a projector-based technology is less than that of an interactive display, but the costs of maintaining it quickly catch up. In fact, after a few years you may discover that you've spent more on your projector-based technology than an interactive display costs.

The Total Cost of Ownership (TCO) combines the original purchase price with all of the subsequent costs that come with it. On a projector, the TCO would include things like the energy to run the projector, replacing bulbs and maintenance costs.



# The unexpected costs of projectors\*



## ENERGY USAGE

Interactive displays are far more energy efficient than projectors. Not only is this a boon for the environment, but your budget too. Let's take the conservative estimate that a projector uses about 50% more energy than an interactive display (many take upwards of 100% more energy):

Savings/school (22 classrooms): **\$700 USD/year**

Savings/district (7 schools): **\$5,000 USD/year**

Savings/district (142 schools): **\$100,000 USD/year**



## LIFESPAN

Buy once, not twice or three times. The lifespan of interactive displays range from 20,000 to 50,000 hours. Even the lower end of that range greatly exceeds the lifespan of an average projector, which generally lasts only 5 years.



## MAINTENANCE

Over the course of 5 years, projectors often need their bulbs replaced twice. Bulbs cost roughly \$100, so twice in 5 years is about \$200 per projector. Plus, after that 5-year period the lifespan of the projector can be up and replacing it is about \$800.

Let's calculate that for a school or district:

Savings/school (22 classrooms): **\$22,000 USD/5 years**

Savings/district (7 schools): **\$154,000 USD/5 years**

Savings/district (142 schools): **\$3.1M USD/5 years**

\* With data from:

[http://nces.ed.gov/surveys/sass/tables/sass0708\\_035\\_s1s.asp](http://nces.ed.gov/surveys/sass/tables/sass0708_035_s1s.asp)

[http://nces.ed.gov/pubs2002/100\\_largest/table\\_app\\_a\\_1.asp](http://nces.ed.gov/pubs2002/100_largest/table_app_a_1.asp)

<http://www.ednetinsight.com/news-alerts/market-insights/k-12-market-the-big-picture.html>



## A more engaging learning experience

Now that we know that the cost of a projector-based technology isn't quite as economical as we'd expect, let's look at how it compares in performance.

The two main projector-based technologies are interactive whiteboards and interactive projectors. Both offer some interactivity, but also come with limitations that impact your ability to achieve your educational objectives.

### Interactive whiteboards

The original interactive whiteboard was invented by SMART, and since its inception numerous variations from several manufacturers have entered the market. An interactive whiteboard uses a projector to display content onto a touch-enabled surface. They've now been eclipsed by interactive displays, which have taken the original concept of an interactive whiteboard and evolved it.

Here are some of the drawbacks with current interactive whiteboard technology.

#### Poor image quality

Projectors largely have lower quality image resolution and sharpness that make it more difficult for students to see lessons, ultimately resulting in less engagement. Plus, you'll need to check if your district has a safety policy concerning dimming classroom lights (a common way to try and compensate for poor resolution).

#### Distracted students

Bulbs also result in shadows, hotspots, glare, colors not displaying accurately and images fading drastically in bright light conditions (meaning that the sun shining through the windows can cause a lot of issues). Add to that the noisy fan humming over the teacher making it harder to hear, and students are far less likely to be paying attention to the lesson.

### Interactive projectors

Affixed to the wall, interactive projectors project onto a blank wall or a whiteboard. Generally, you can use a pen or finger to write on lessons and move content, but some only support pens for writing.

Though a relatively inexpensive option, they offer many challenges:

#### Low level interaction

Projecting onto a wall or board diminishes the interactive properties of the projector. The accuracy of your writing and touch is greatly impaired because you're working on a surface not designed to be interactive (it could be rough or have surface imperfections). Teachers and students become reluctant to write or interact because the performance is so bad.

#### Poor image quality

Similar to interactive whiteboards, the low resolution images become a barrier to students engaging with lessons. The problem is compounded by the fact that you're projecting onto a surface that isn't designed for that purpose. Many systems place a cursor on the screen before you touch it, which is disorienting. Plus, there is the shadow of the projector itself to deal with.

#### Reduced mobility

The projector is attached to the wall, meaning you have no flexibility to move it around. You can't share it between classrooms, but more importantly, it doesn't accommodate flexible learning environments. You're locked in to its placement on the wall.



# WHY NOT JUST USE STUDENT DEVICES?

Schools around the world have rapidly begun to adopt student devices like laptops, tablets and smart phones inside and outside of their classrooms. The influx of these consumer products in the classroom offer great opportunities for education (and students love them!).

## Using student devices with your interactive display

The image of students sitting in rows and looking down at their tablets is not one that reflects 21st-century learning. To truly develop the life skills 21st-century learners need, we must focus on the collaborative, group problem solving skills that will be demanded of them in tomorrow's workforce.

Multiple touchpoints, large screen sizes and enabling distance learning make interactive displays ideal for collaborative learning, so when looking at one, think about how it can help student devices become collaborative devices. Can devices be incorporated into lessons on the interactive display? Can lessons and activities be pushed out to devices both inside and outside the classroom?

The software you choose also has a huge impact on this (check out the next section for more on that).

Student devices have a place in today's classrooms, but the question is how can they be used to better support a variety of teaching approaches and learning styles.

A classroom scene with a teacher pointing at a large interactive display. The display shows a presentation titled "Truman's emotional rollercoaster" with various images and text. Several students are seated at desks in the foreground, looking towards the display. The image has a blue tint.

# DON'T FORGET THE SOFTWARE!

Finding the right interactive display is only half the battle. The software that you run on it, and how the two work together, has a critical impact on student performance. In this section we'll explore the different types of education software on the market, and how the right software combined with the right hardware has a pronounced effect on educational objectives.





# THE IMPACT OF SOFTWARE ON LEARNING

## The impact of software on learning

Here's something that might surprise you: the software you use on your interactive display will have a greater impact on educational objectives than the interactive display itself.

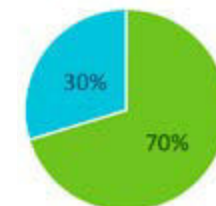
Finding software that works well with your interactive display should be a critical part of your technology search.

## The Four Types of Software Related to Student Success\*

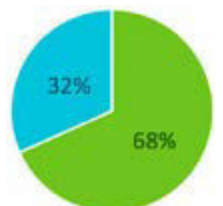
### Software

- Positive success
- Mixed or limited success

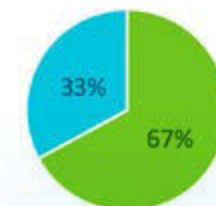
### Whole Class Collaborative Software



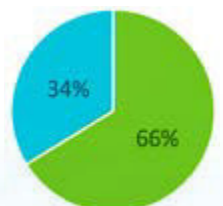
### Student Co-Creation Software



### Assessment Software



### Gamification Software



\* From "Teaching, Technology and Learning: Understanding the interconnection" Filigree Consulting (sponsored by SMART Technologies). June 2016.



# THE DIFFERENT KINDS OF EDUCATION SOFTWARE

Students and teachers have specific needs that require software designed for education. Trying to use non-educational applications in and outside the classroom can only get you so far. There is a lot of software for schools out there, but we can broadly classify the key ones under four categories. Any software you put in the classroom should integrate with personal devices, so make sure you ask!



## Lesson creation and delivery

Check for lesson templates and access to resources to save teachers time, as well as subject-specific tools, like protractors for math. It's essential that this software is easy to use as teachers and students spend a lot of time in it.



## Formative assessment

This is used to gauge understanding during or after a lesson, helping teachers determine whether key concepts have been absorbed or need to be reviewed. It should give detailed reports immediately after assessments, integrate with your lesson software and definitely integrate with devices.



## Gamification

Adding game-inspired elements to lessons increases engagement. Whether through fun sound effects, cool graphics or races, gamification software adds an element of excitement to the classroom and is a great way to conduct formative assessments. They should be quick to set up and deliver.



## Collaborative workspaces

A place where students can work together on projects, collaborative workspaces are perfect for whole class, small-group and student-led learning. Can teachers follow along and see the learning process unfold? Can students work collaboratively outside of class?





# FINDING THE RIGHT SOFTWARE FOR YOUR INTERACTIVE DISPLAY

## Finding the right software for your interactive display

Software is critical to success, but what do you look for? Here are some tips:

### **Make sure that it's included!**

This one is easy – why should you pay for hardware and software separately? If you're buying an interactive display, make sure an initial subscription to education software is included in the price.

### **Is it from the same company?**

If the software is made to work with the hardware, the experience will be more integrated. They'll work better together, you'll have a much simpler implementation and training can easily be standardized.

### **Does it come with free resources?**

The greatest gift you can give your teachers is more time. See if there is a way for teachers to search (e.g. by grade, subject or standard), download and share lesson resources for the software through an online community or portal.

### **Check out the drivers**

It's a bit technical, but a lot of key functionality is hidden in the drivers. Do ink and touch only work within proprietary software, or on every day applications (PowerPoint®, PDFs, Google Docs, Slides and Sheets) that your teachers will want to use too? Make sure they can write into (ink is anchored when scrolling) and save their notes in the application file format so they can continue to manipulate the notes in next lesson.

### **How will teachers use the software?**

Consider whether the software lets teachers import files such as PDF and PPT and add interactive activities on the fly. Does it enable teacher-paced and student-paced workflows? Does it cause more work for teachers to learn a new platform – or does it integrate smoothly with familiar LMS and workflows teachers already use like Google and Microsoft?

And most importantly: ensure it enables connected learning anywhere, so teachers can continue the learning process whether it's blended or needs to move remotely to the cloud at a moment's notice.



# THE FEATURES THAT ACTUALLY MATTER

The moment you begin shopping for interactive displays, you'll be inundated with features. They distinguish one interactive display from another, but it's important not to get sidetracked by red herring promises or technical specifications that have no impact on learning. The most critical part? Test them out yourself!

In this section, we'll look at the features that actually impact learning.





# TOUCH AND WRITING

A lot of the work that happens on your interactive display will involve touch and writing. Students moving objects and teachers making notes over lessons are just a couple ways the interactive display is used daily. When responsiveness and accuracy are off, you lose valuable class time, and students and teachers are less likely to get up and interact again.

If collaboration is core to your educational goals, then testing how multiple students can interact on the interactive display at the same time should be critical a part of your purchasing decision.

## Multi-user collaboration

Often two or more people will be writing on the interactive display at once. Get a colleague up there with you. Are you able to write, erase and move objects at the same time?

## Selecting tools

Many interactive displays force you to manually select a pen when you want to write, select a cursor when you want to use your finger and select an eraser when you want to erase. Features that automatically detect what you're trying to do in these tasks reduce frustration and time.

## Pen color

Even if a display allows for more than one student to be writing at the same time, many don't allow them to write in different colors, making it hard for teachers to keep track of contributions. Look for a display that automatically recognizes pen color without having to choose from a menu.

## Mark up any content

As teachers move between different inputs and apps, they shouldn't be hindered in their ability to mark up the content with digital ink. Look for displays where you can write on the content no matter if it's from a plugged-in computer, document camera, DVD player, or even a shared screen or web browser.



# TOUCH AND WRITING

Here are a few more detailed things to look for.

## Contact and detection points

Use a pen or finger and note the distance between the screen surface and your finger or pen tip. The smaller the gap, the more accurate and less disorienting writing and touching on the display is.

## Accuracy and legibility

You don't want students to adapt the way they've learned to write because digital ink shows incorrectly. The digital ink should reflect what and how you are writing, as accurately as possible.

## Feel the surface

Is the surface smooth, cool and comfortable to the touch? Or is it sticky, abrasive and hot? If the screen surface has a lot of friction and is uncomfortable, it leads to "finger burn," which is a barrier to use. It should also be resistant to scratches.

## Quiet pens

Remember the cringe-inducing squeak of chalk on the blackboard? Pens on an interactive display's screen can be noisy too. If you notice annoying noises when you write, students will too. Be sure to note it as they won't go away.





# EMBEDDED COMPUTING

Most interactive displays on the market include a built-in computer. They all eliminate the complexity involved with connecting a laptop or dedicated PC to your interactive display by providing quick access to files and applications like your educational software, a web browser, digital whiteboard and screen sharing. Here are some specific features of an embedded computer to look for.

## Value-add versus added time

Your EdTech needs to add value – not extra time. Look for simple walk up and use features and sign-ins that save teacher preferences like their favorite apps and files. Ready-made activities and templates and widgets like timers, dice, rulers streamline lessons and hold students' attention.

## Cloud storage

More and more, schools are using cloud storage, such as Google Drive, Microsoft One Drive and Dropbox, so that teachers can access their lesson content from anywhere. Having cloud files available right at the board frees teachers from needing to connect a computer. Some learning software even integrates with cloud storage letting teachers add interactivity to common file types, like PDFs, Microsoft Office and Google files.

## App Store

Different teachers use different apps, so having an App Store in the display where they can search for and download their favorite apps means less work for administrators. If an app used by a lot of teachers isn't available through the App Store, ensure administrators can push it out to all displays via mobile device management (MDM) software.

## Screen sharing

When students can share their device screens to the board, teachers can highlight work and provide feedback, but not all screen share capabilities work the same. Look for the ability to share a minimum of four screens through native platforms, such as Google Cast, AirPlay, Miracast, and/or software apps instead of extra adaptors. Touchback capability allows students to navigate and control the shared Windows or Mac laptop right from the board.



# EMBEDDED COMPUTING

Other key considerations regarding maintenance, security, privacy and policies.

## Remote device management

When you add up all the technology in your school, make sure the displays' embedded computer can be managed through a cloud-based solution that allows the IT administrator to remotely control them from any web browser.

## Removable computer

It's possible for the embedded computer to be removable. This is an advantage as you don't need to replace or move the entire interactive display to access the computer. Simply remove it to perform the upgrade, repair or maintenance needed.

## Over-the-air updates

The best way to keep software and firmware at optimal function and security is to ensure the embedded computing solution offers automated, over-the-air updates.

## Resetting the display

If your school has multi-use classrooms and workspaces, being able to quickly scrub work from the display for the next user or class with a clean-up or reset room feature is key.

## Data privacy

Data protection laws differ by jurisdiction and are essential to protecting the collection, use and disclosure of personal information of students and educators. Ensure your embedded computing solution adheres to the laws in your region.



# CERTIFICATIONS AND COMPLIANCE

It's important to know your technology investment will not only last, but that it's been certified by safety, environmental and disability regulatory bodies in your region.

## Safety

Interactive displays are designed to be touched and can take a bit of a beating. Look for fully heat-tempered glass (not just heat-strengthened or chemically-strengthened). In the rare event of damage, only fully heat-tempered glass will crumble into small pieces instead of shattering into large, jagged pieces. Also check whether the display is certified by your region's nationally recognized testing laboratory (e.g. CE, UL) and the manufacturer is listed on the certifying body's website.

## Accessibility

To make your interactive display accessible for all students, see if larger objects like tennis balls can be used instead of fingers and pens, and that included pens have a body diameter of 1.5 cm or more to aid students who have difficulty grasping smaller objects. Also see if the interactive display offers features in accordance with your regions' disability act.

## Longevity

Interactive displays made from commercial-grade panels are rated for approximately 50,000 hours, providing many years of dependable use. Consumer grade panels (like those on LCD TV screens) are rated for only 20,000. See if the manufacturer tests their displays under extreme conditions, such as temperature, humidity and voltage, and check if the displays are electrostatic discharge (ESD) compliant to protect from a sudden flow of electricity between charged objects preventing damage to sensitive electronics.

## Energy consumption

The amount of energy required to power interactive displays varies between brands. Look for an international efficiency certification like ENERGY STAR® to lower your energy costs and reduce your environmental footprint. Other features that conserve energy include automatically turning on when you enter the room and automatically entering sleep mode when not in use.



The background image is a dimly lit classroom. A large interactive display is mounted on the wall, showing a presentation titled "AG: „GERICHTE AUS DER HEIMAT“". The display features a collage of images, including a map and various objects. Two students are standing near the display, and several other students are seated in the foreground, looking towards the screen. The overall atmosphere is educational and collaborative.

# SPEEDS AND FEEDS

## THE TECHNICAL STUFF YOU NEED TO KNOW

What impact does a larger screen size have on learning? How many of these inputs do I actually need? Good questions that require thought because the specifications of an interactive display are equally important to its features.

In this section, we'll take a look at some of the common questions and decisions surrounding them.



# SCREEN SIZE

Screen sizes for interactive displays generally range from 55" to 86" and beyond. The larger end of that spectrum is more expensive, so let's see what role the size of your interactive display plays in achieving your educational objectives.

## Viewing distance

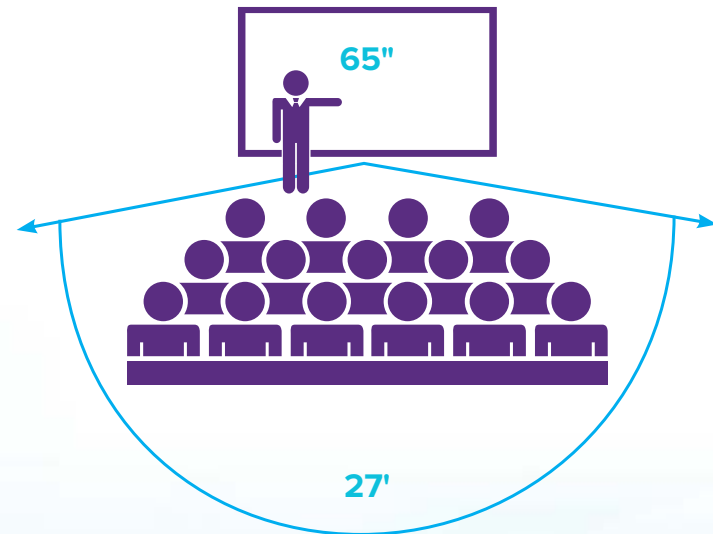
The 5X rule of thumb is a handy trick to calculate a comfortable viewing distance for 20pt font on an HD interactive display.

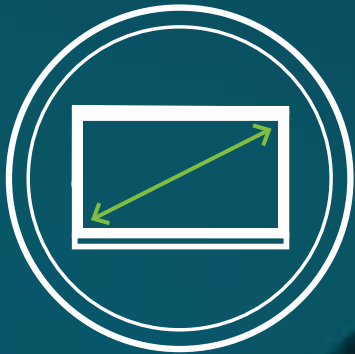
The formula is simple: multiply the screen size by 5 and divide by 12 to get the answer in feet. Let's use a 65" display as an example:

$$65" \times 5 = 325" / 12 = 27 \text{ ft (8.2 m)}$$

## Viewing angle

Even if students are close to the interactive display, the angle they're looking at it from matters. Many interactive display manufacturers say they address this by having a 178° field of view, but there is still a reduction in clarity and brightness at extreme angles.





# SCREEN SIZE

## Collaboration

A less thought of, but equally important consideration is how many students you want to have working together on the interactive display. If you want 3 or 4 students collaborating at a time, you'll need a 75" screen or larger. Don't forget to take into account the height of your classroom...and your students! You want students to be able to reach all four corners of the interactive display.

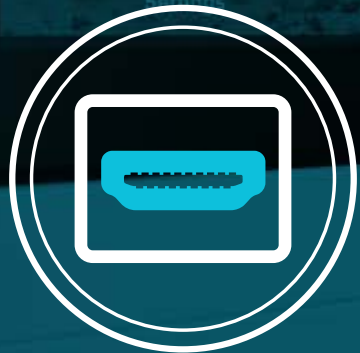
## Anti-glare screen

Interactive display screens also have either a glossy or anti-glare finish. Anti-glare screens dramatically reduce unwanted reflections, and improve the visibility of lessons, particularly in well-lit areas. They also help to reduce eyestrain.

## LCD quality

It is worth noting that most large interactive displays include 4K as a standard specification but look for a vendor who uses Grade A or better LCD panels in all their products. Compared to Grade B and C, Grade A panels have virtually no likelihood of scratches, marks, lines, spots, light leakage or dead pixels. Ensure you get the 4K picture quality you are paying for!





# CONNECTIVITY

Having the right network connectivity and ports empowers teachers with the flexibility to incorporate a variety of media in lessons and student presentations. From proper Wi-Fi and Bluetooth connectivity, to each port connecting different devices to show or play media. Here's an overview of common ports and what you need for each one:

## USB

There are three types of USB ports. Type-A is the one we all use for flash drives and other peripherals. Type-B is lesser known, but also important as it's used for touch input on the interactive display. Type-C carries data (e.g. audio and video) and power. The first two are a must, the third is useful to easily connect the latest laptops or even a Chromebox™ device.

## HDMI\*

If you connect your laptop to a TV to watch Netflix®, you know what an HDMI port is. It allows video and audio signals to be displayed and heard. Most interactive displays will have at least one. The question you'll want to ask is how many you need and if the video inputs are touch enabled through corresponding USB Type-B ports. Also, know that HDMI 2.0, not HDMI 1.4, ensures compatibility with high-bandwidth video signals, like 4K.\*\*

\*Another option for carrying audio/video and other data is a DisplayPort \*\*Manufacturer-certified installers ensure true fidelity 4K signals

## VGA

A VGA port carries lower resolution video (so it's not as modern as an HDMI or DisplayPort). If you need a VGA port, just be certain that your audio inputs correspond with the VGA connection, or you won't be able to get sound.

## Audio

If you want to hook external speakers up to your interactive display, you'll need an audio output.

## Network connection

A network connection allows you to remotely access the interactive display's information from a room control system and to adjust its settings.



# MORE KEY SPECIFICATIONS

## Audio

There is nothing worse than preparing a lesson with some great, engaging multimedia content and then discovering half the class can't hear it. Almost all interactive displays include internal speakers, so do your best to test them out in a space similar to your learning environment(s).

## Mobility

Most interactive displays have the option of being installed on a mobile floor stand (the stands can be purchased from the vendor or a third-party, depending on the interactive display). Mounting it on a stand allows you to move the interactive display from classroom to classroom, as well as around a classroom during lessons.

## Operating system (OS) support

When comparing features on various interactive displays, be sure to ask if all the features are compatible with the operating system your school(s) uses. This is particularly important if you use multiple operating systems. Most interactive displays only support one touch point on macOS®, for example and either don't support writing in Chrome OS™, or provide a subpar experience, which can slow teachers down.

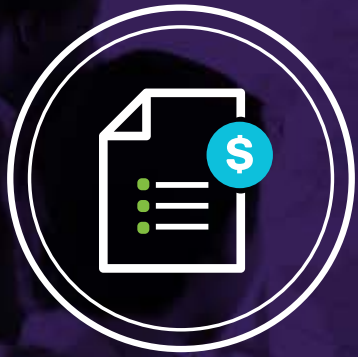
The background of the slide is a photograph of a classroom. Several students are visible, some looking at a screen or board. The image is overlaid with a semi-transparent purple filter. A large, light purple diagonal shape is also present, extending from the top left towards the bottom right.

# WHO YOU ARE BUYING FROM...AND WHY IT MATTERS

We've compared interactive displays to other hardware options, discovered the importance of finding software that complements it, and studied the features and specifications that have the largest impact on learning outcomes.

The final thing we need to explore is what to look for in the company you purchase from.





# TECHNOLOGY THAT WORKS FOR THE CLASSROOM

Interactive displays are the technology hub of a classroom. They connect students, lesson content and devices into unified learning experiences. You want education technology that's intuitive and fits the needs of teachers and students so the focus is on learning, not the technology. And once you find it, you want it to last for years to come. Here are a few overarching things to consider when comparing manufacturers..

## Hardware integration

Through the display's ports, you can connect computers, a Chromebox, document cameras and more. How and whether these inputs work with the display in terms of switching from one to another and being able to mark up over the content differs. Be sure to get a demonstration of these abilities so teachers won't be frustrated.

## Software integration

As discussed earlier, education technology isn't just about the hardware. Having learning software that leverages student devices in engaging ways is a must. But that's not all! You also need to ensure that it plays well with the other software platforms, like Microsoft, Google and video conferencing.

## Working with educators

When a product is designed for you, your input and feedback is valuable and taken seriously. Ask the company if they support a community of educators. If it's a company with education at the forefront of their business, they will. If not, you might find your voice lost in the noise.

## Quality assurance and testing

The prolonged and unique way an interactive display is used during a school day means the quality and testing process it goes through before purchase is critical. Be sure to ask how rigorous the testing was, and most importantly, whether it was specific to the classroom.

Look for a manufacturer that performs shock and vibration testing on all its shipping and packaging materials to give you peace of mind that your display will arrive in tip-top shape, fully functional for installation.



# SOCIAL RESPONSIBILITY

Purchasing an interactive display goes beyond your classroom, school and district. It has global implications. Does the company you're buying from have a social and corporate responsibility policy?

Here are a few areas relevant to interactive display production that you should ask about:

## **Conflict minerals**

Gold, tantalum, tungsten and tin are present in virtually all electronics. Warlords in the Great Lakes Region of Central Africa have used mineral production to fund conflict and major human rights abuses. Ask the company about its conflict mineral policy to ensure you aren't supporting this practice.

## **Digital rights management**

Look for a vendor that is committed to protecting the use, modification, and distribution of copyrighted works (such as software and multimedia content).

## **Social Accountability International (SAI)**

To ensure the use of ethical materials, make sure the company and its direct and indirect suppliers comply to the SAI certification standard for decent workplaces (SA8000). Certification is based on the UN Declaration of Human Rights, conventions of the International Labor Organization (ILO), the UN and national law.



# IMPLEMENTING YOUR NEW TECHNOLOGY

Finding the right interactive display is one thing, but ensuring it's adopted by your teachers and having the right impact in your classroom is another. The company you buy from should work with you on a customized implementation plan that covers the development and tracking of your desired educational objectives. This should encompass the following areas:

## Technical

District-wide technical setup to roll out the implementation.

## Pedagogical

Support plans to help with district-developed goals and outcomes.

## Ongoing support

Programs to develop your own trainers, as well as ad-hoc support in the classroom.

## Resources

Access to online resources, lesson plans and templates, as well as webinars, phone and in-person support to facilitate a smooth and quick deployment.







# TRAINING AND SUPPORT

The effectiveness of your interactive display is dependent on it being used regularly, and being used well. To help ensure that teachers adopt the new technology, and that students are getting the most out of it, ask about training programs. There are several options that you should look for:

## **Complimentary training resources**

Usually in the form of YouTube® videos, training documents or online training resources.

## **In-person training**

Does the company have approved trainers that will provide custom training for you and your staff?

## **Training certification**

These programs certify teachers within your district to train their colleagues.

## **Installation support**

Your reseller or manufacturer should have the right certifications to ensure a proper installation.





# FINAL THOUGHTS

## Working with educators for 30 years

An interactive display is an important investment not only for your budget, but for the teachers and students that will use it daily. Finding a holistic solution is essential to its successful implementation and, ultimately, meeting your educational objectives.

SMART Technologies has been in the education field for over 30 years, which uniquely positions us to stay on top of emerging pedagogies. Our SMART Board® interactive displays and SMART Learning Suite software are designed specifically to help teachers foster essential life skills for today's students. We work tirelessly with educators to identify opportunities and challenges and design our products to address them. We invite you to try them and test them against the competition.

To learn more about SMART or to contact one of our resellers, visit [smarttech.com](https://www.smarttech.com).

### A HANDY CHECKLIST

To help you as you research interactive displays, we've created this handy list of questions and activities to try on the topics we've covered.

**You can view and  
print it here**





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