



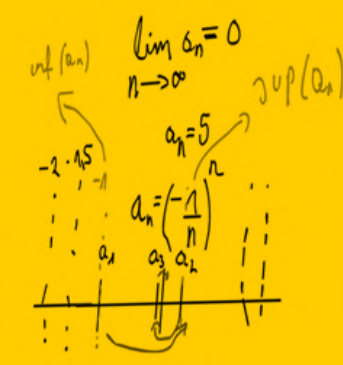
Lesson 9



$$a_1 = \frac{1+1}{1-1}$$
$$a_2 = 3$$
$$a_3 = 2.7$$
$$a_n = \frac{201}{397}$$
$$a_n = \frac{800}{397} = 2.017$$

$$\lim_{n \rightarrow \infty} a_n = 2$$

↓
horizontal



$$a_n = b_{n+1}$$
$$a_1 = 5$$
$$a_2 = 8$$
$$a_3 = 11$$
$$\lim_{n \rightarrow \infty} a_n = \infty$$
$$a_n = \frac{1}{n}$$

$$\lim_{n \rightarrow \infty} a_n = 0$$

6/62

12:30 AM | Mon, July 15

vibe

Distance Learning eBook



Vibe Inc, 2021

Table of Contents

Distance Learning Is the Future _____ \03

What is distance learning?

History of distance learning

Challenges

Types of Learning _____ \07

Common types of distance learning

Synchronous and asynchronous learning

Distance Learning Ecosystems _____ \10

Which technology is best?

Types of learning ecosystems

How Vibe Can Help _____ \15

Lesson creation

Sharing to and from Vibe

Digital whiteboarding and annotation

Screen recording with audio

Direct teacher-to-student communication

Use your favorite device

Why Vibe _____ \22

**Distance Learning
Is the Future**

What is distance learning?

Distance learning—a form of education in which teachers and students are in different locations—has long been a popular choice for students who were unable to access learning in the classroom. In recent years, it's been increasingly built out to enhance education for traditional students.

Per the [National Center for Education Statistics](#), more than 56 million students in the US, from elementary through high school, are expected to be enrolled in school in the fall of 2020. Nearly 20 million students are projected to be enrolled at the college or university level.

With 2020 quarantines forcing many schools to provide significant distance between students and follow strict health and cleaning protocols, educators, parents, and students are reevaluating what learning looks like in these modern times.

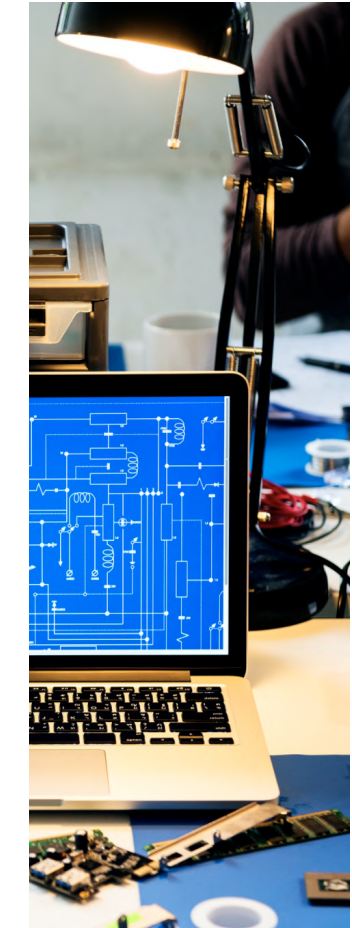
Distance learning is key to education in 2020 and will build the foundation for future programs.



History of distance learning

Distance learning may have come to the forefront with the onset of COVID-19, but this practice has been used successfully for centuries. Each wave of new technology has brought academics to people who may have not been able to access it otherwise.

- **Postal Service:** Correspondence courses in the 1700s are commonly cited as the first formal instances of distance learning. The University of London began offering global distance learning degrees in 1858, with Nelson Mandela notably studying law through the institution.
- **Radio:** Flashing forward to the 1930s-40s, radio brought about lower-cost tuition and allowed off-campus college and university students access to on-air classroom lectures. The head of the Federal Communications Commission espoused that "college-by-radio" would put "American education 25 years ahead."
- **Television:** In the 1950s, Chicago television station WTTW enrolled more than 15,000 students in televised college courses. PBS created the Adult Learning Service, and in early educational programming, "Captain Kangaroo" and "Ding Dong School" paved the way for "Sesame Street" and "Mister Roger's Neighborhood."



- **Internet:** Capable of transmitting images, text, video, and interactive modules, the internet transformed education starting in the 1980s. Now, the majority of colleges and universities offer online courses and revered institutions such as Harvard, MIT, and Stanford have offered online coursework not only for enrolled students, but also free for the general public. Younger children can prep for their SATs via services like Kaplan, or take elementary courses from nonprofits like Khan Academy.

Challenges of distance learning

Of course, for all of the benefits of distance learning, it's not without difficulties or compromise. Utilizing distance learning successfully means readjusting and reimagining what's worked in traditional classrooms.

Disconnection

Distance can bring disconnection. Humans are social creatures, and the buzz of packed hallways, sitting with friends in an auditorium, or seeing a shy student at the back of the room raise their hand can't be duplicated electronically. Finding new ways to connect when you're used to being able to read expressions and body language can be difficult and tiring. Video conference fatigue is real.

Disengagement

Education has always incorporated accountability into learning, and distance learning without participation can result in **disengaged students**. Besides the distractions of teaching and learning from home—currently including long term close quarters with family members, increased stress brought on by economic pressures, and the health risks of a pandemic—it's hard to ensure that every learning style can be addressed remotely.

Miscommunication

Communications mishaps happen even under the best circumstances, but they're magnified when we're relying on channels of communication that are new to many involved. Just making sure that a class has access to a lesson in a format that they can consume is difficult; fielding questions from students and parents at all hours makes it even more demanding.

None of these difficulties are insurmountable, but it could mean switching to a different approach.



Types of Learning

Common types of distance learning

- **Synchronous learning** is done in real-time, with participants needing an immediate response from the other party for learning to continue. Examples include a live or video conference classroom lecture, a group discussion, asking and answering questions, or working simultaneously with classmates on a group project.
- **Asynchronous learning** is set up so that participants can engage with the lesson at different times, at their own pace. Examples include a student doing homework in a workbook, reading on their own, watching a recorded lecture, or working alone on their section of a group project .
- **Hybrid distance education** brings aspects of both synchronous and asynchronous learning methods to the classroom. A video conference lecture alongside a group discussion (synchronous) followed by an individual writing assignment (asynchronous) would involve hybrid distance learning.

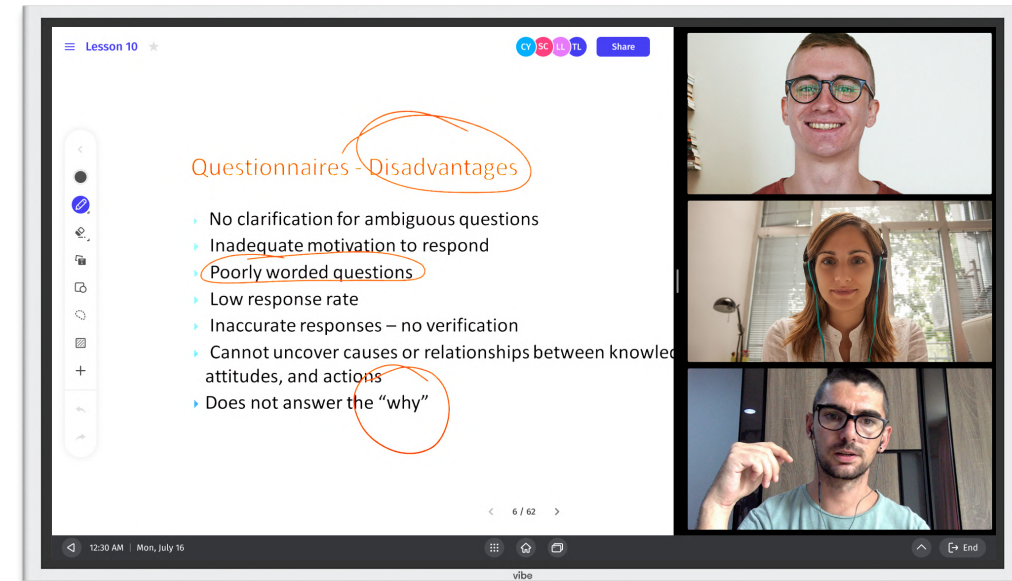


Synchronous vs. asynchronous learning

There's no "right" way to teach or learn, but there's continuous debate around what is the best way. Trying both synchronous and asynchronous methods will help you figure out the right balance for both you and your students.

Regardless of which style is chosen, upon entering the workforce students will likely encounter both asynchronous work (reading training guides, creating status reports, sending emails) and synchronous work (responding to customer questions, meeting with team members, sending instant messages on Slack).

Learning when it's best to communicate synchronously vs. asynchronously is an essential skill.



VS



Distance Learning Ecosystems

Which technology is best?

What's the right technology for your school? Perhaps not surprisingly, that depends on several factors.

Vibe has worked with a wide range of educators and seen what's worked well for each of them. Generally, school districts end up locked into either a Google or Microsoft ecosystem, or using a variety of third party applications for a more customized, configurable solution.

Let's take a closer look at these options and what they have to offer.



Microsoft-based ecosystem

Messaging: Microsoft Teams

Screen recording: Microsoft Teams

Video conferencing: Skype, Microsoft Teams

Documentation: Office 365 (Word, Excel, PowerPoint, OneNote)



Google-based ecosystem

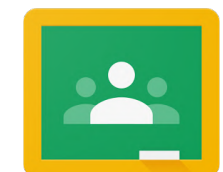
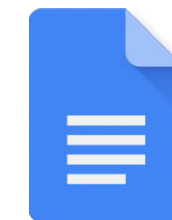
Classroom management: Google Classroom

Messaging: Gmail

Screen recording: Google Meet

Video conferencing: Google Meet

Documentation: Google Drive, Google Doc, Google Scholar



Vibe's open ecosystem

Classroom management: Schoology, Canvas, Blackboard

Lesson Preparation: Screencastify, Edpuzzle, InsertLearning

Messaging: Slack

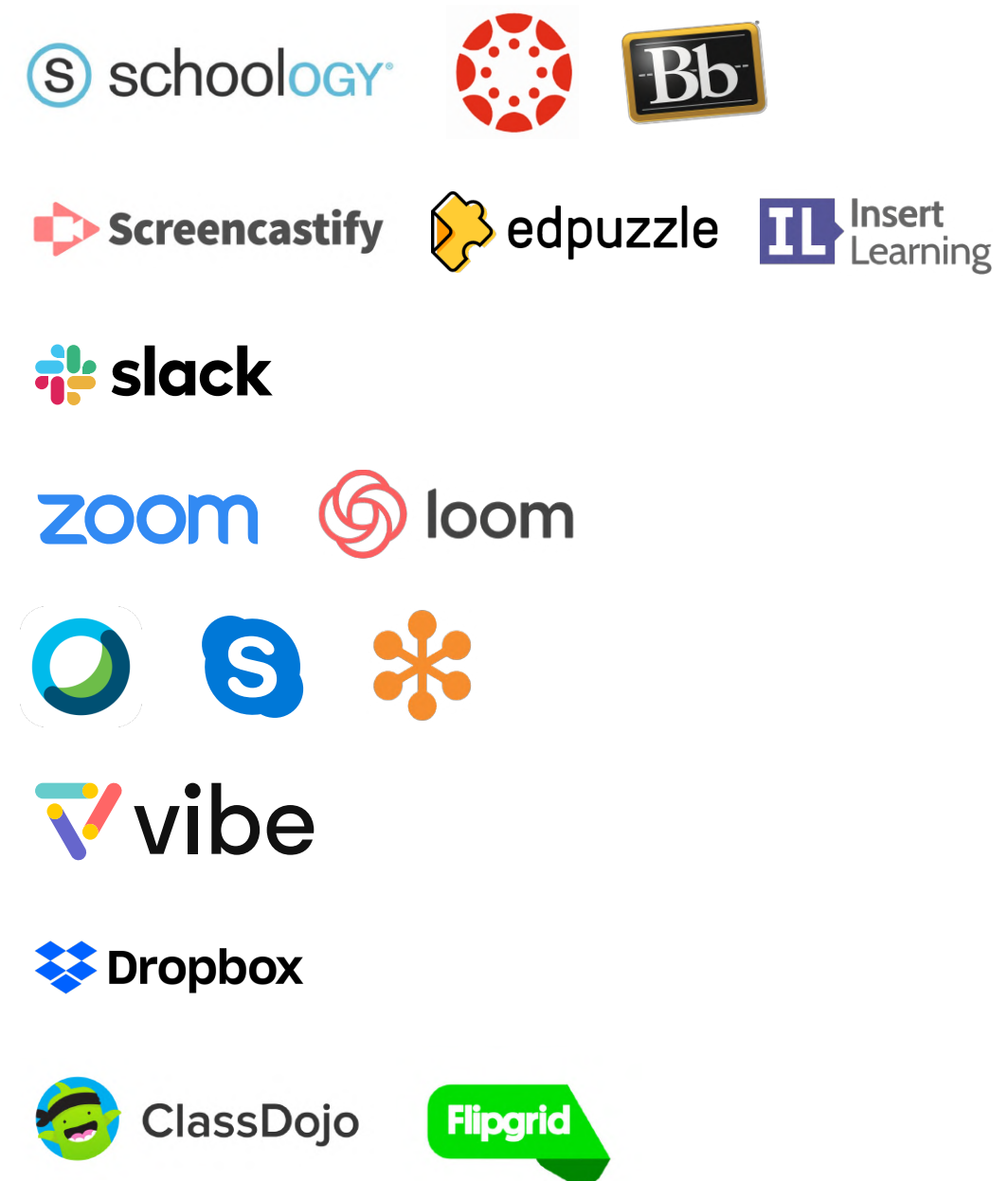
Screen recording: Zoom, Loom

Video Conferencing: Zoom, Webex, Skype, GoToMeeting

Whiteboard: Vibe

Documentation: Dropbox

Classroom community: ClassDojo, Flipgrid

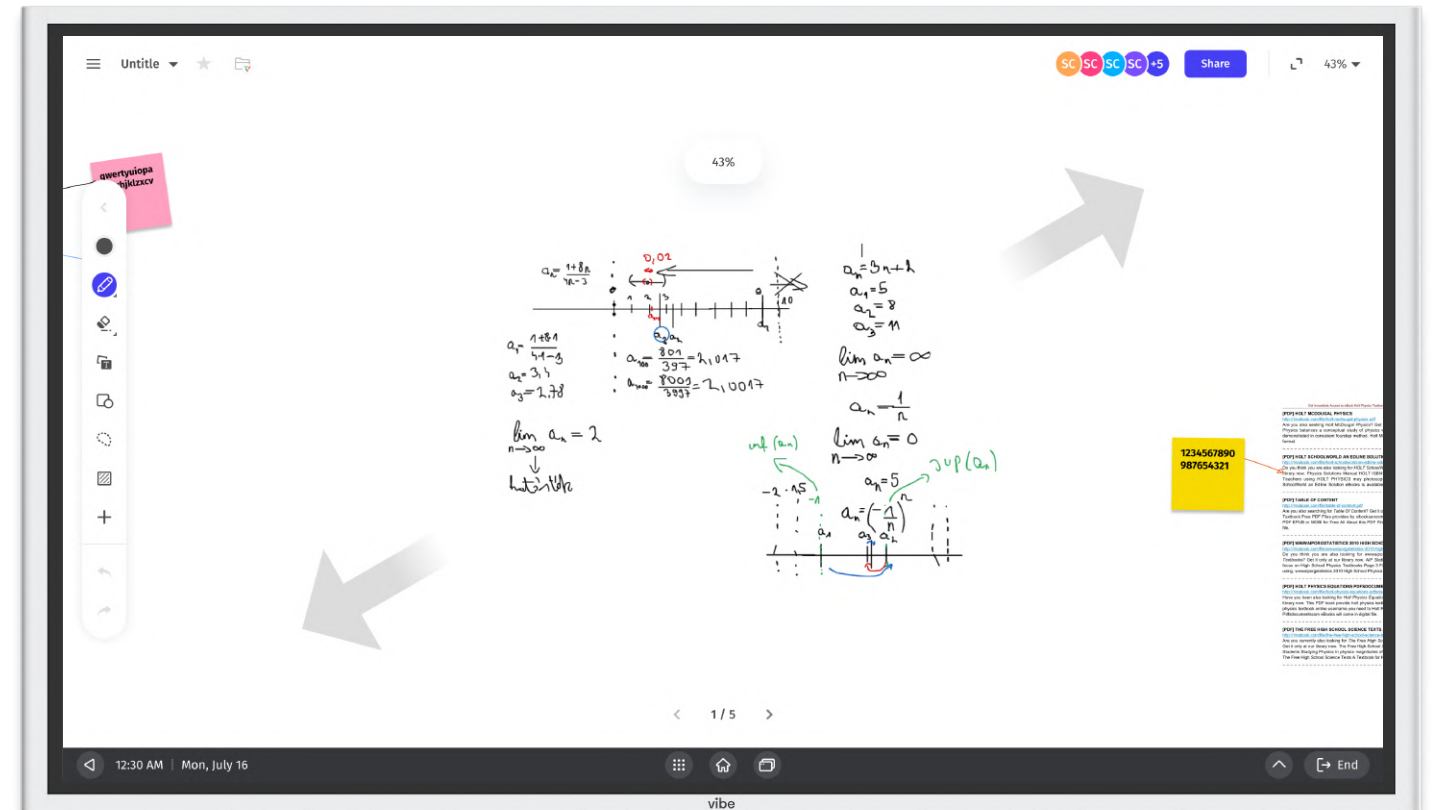


How Vibe Can Help

Lesson creation

Lessons on Vibe can be prepared ahead of time, used during class, and will remain accessible for continued learning long after a video conference or recorded session ends.

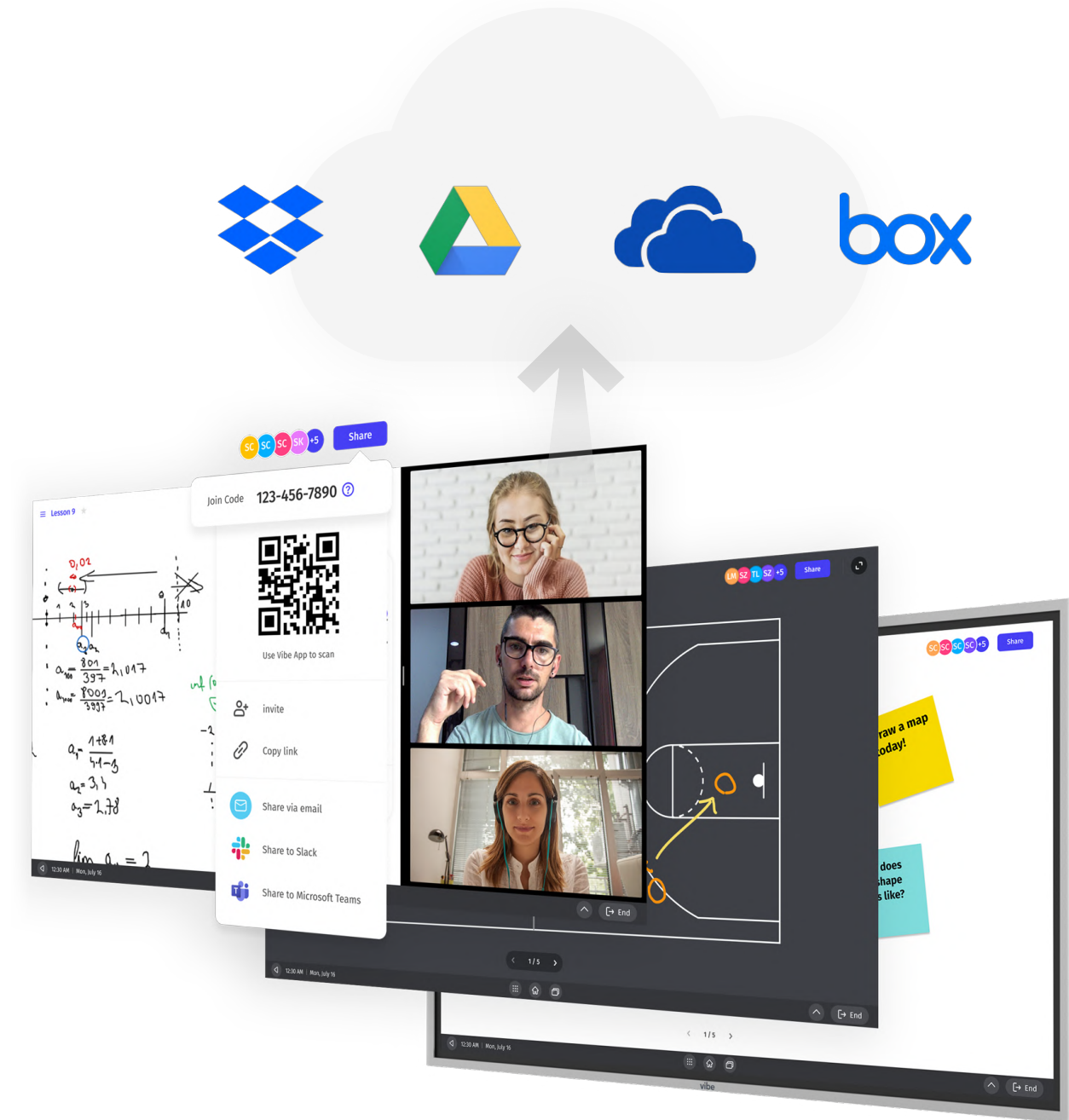
Take “showing your work” to a whole new level with Vibe’s infinite canvas. There’s never a need to erase when moving on to a new question. You can create another page or just zoom out to a different part of the canvas and continue working.



Sharing to and from Vibe

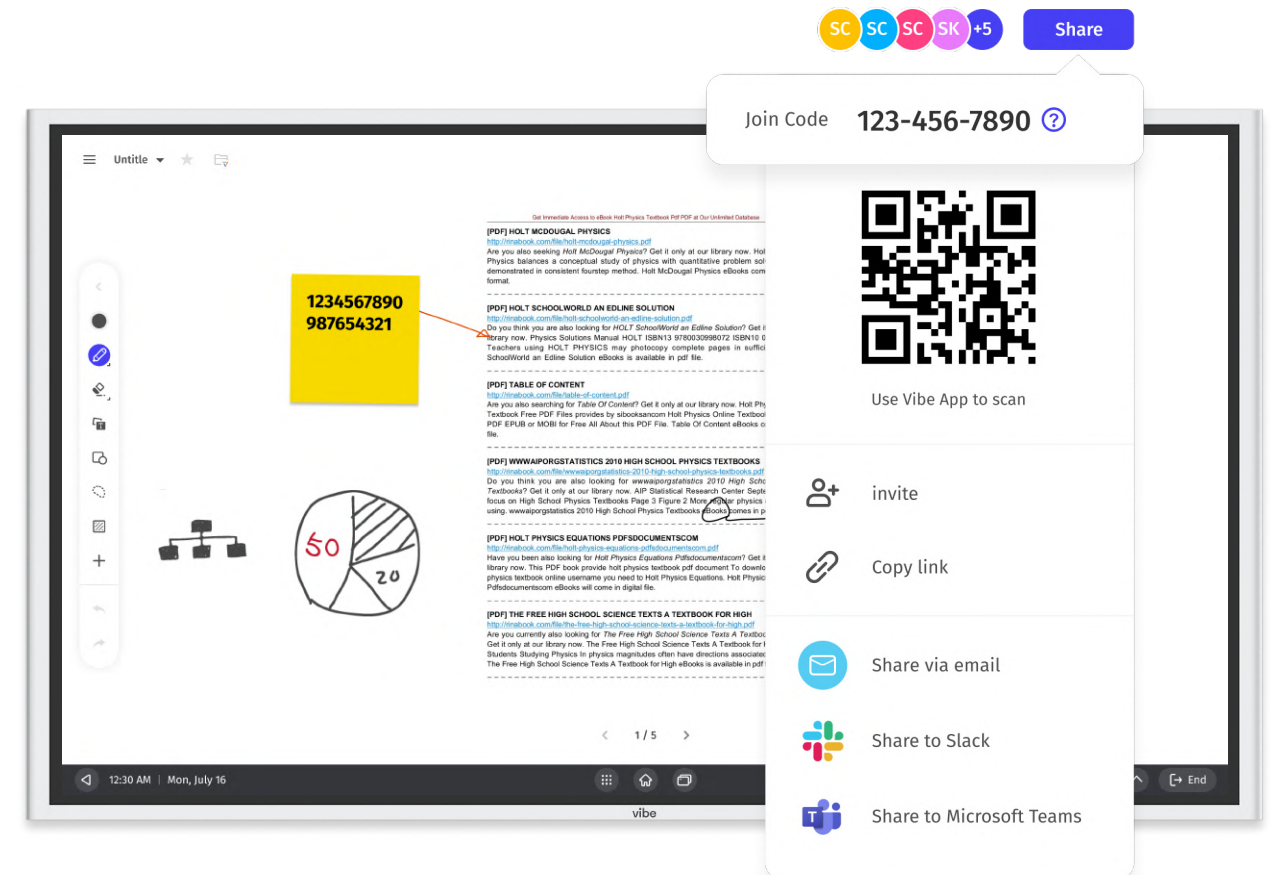
Bring files into Vibe easily from Google Drive, Dropbox or OneDrive. You can access the files in their native format, like Microsoft Word or PowerPoint, or bring them into the whiteboard as PDFs that can be annotated over again and again. Pull images into the board with a click, then resize, move, or delete them as needed.

Board invitations for collaboration can be sent via a sharable link through email, Slack, Teams, or Zoom chat, or via QR code. There's simple click-to-send technology to send the board via email with an attached PDF. Boards can also be saved as PDFs directly to cloud drives like Google Drive, Box, and OneDrive.



Digital whiteboarding and annotation

The handwritten word—be it shared on paper, chalkboard, or whiteboard—has been a popular learning tool for centuries, and with good reason. This type of communication works well for reading/writing learning styles. Vibe offers educators and students the ability to annotate over any images or PDFs with sketches, handwriting, and sticky notes, which means that visual learning can be fully incorporated as well. With multiple participants being able to write and draw together in real-time from any location, Vibe is particularly popular for synchronous lessons.



Screen recording with audio

Of course, there are times when it's just not possible to have students in the same place at the same time—even when that “place” is virtual. Asynchronous lessons are best in these situations, and have the additional benefit of being on demand for students who benefit from repetition. Given that many educators are tasked with large class sizes, recorded lessons can be a way to reach students in a personal way at scale.

Lessons done with Vibe can be recorded with both visual and audio components using popular video conferencing apps like Zoom or Teams, as well as with programs like XRecorder.



Direct teacher-to-student communication

Many school districts have already established which video conferencing tools are best for their community. Vibe fully supports popular video conferencing apps like Zoom, Google Meet, Webex, GoToMeeting, and Skype, so you can pick the solution that already works for your team.

In many situations, video conferencing just isn't enough for engaged learning. Face-to-face communication is helpful, but many students learn best when they're able to see problems calculated in real-time, taking notes together directly on the lesson's material, or by getting immediate feedback on their work.

Vibe makes it simple for teachers to combine video conferencing with whiteboard and other apps so that learning spans multiple modalities.

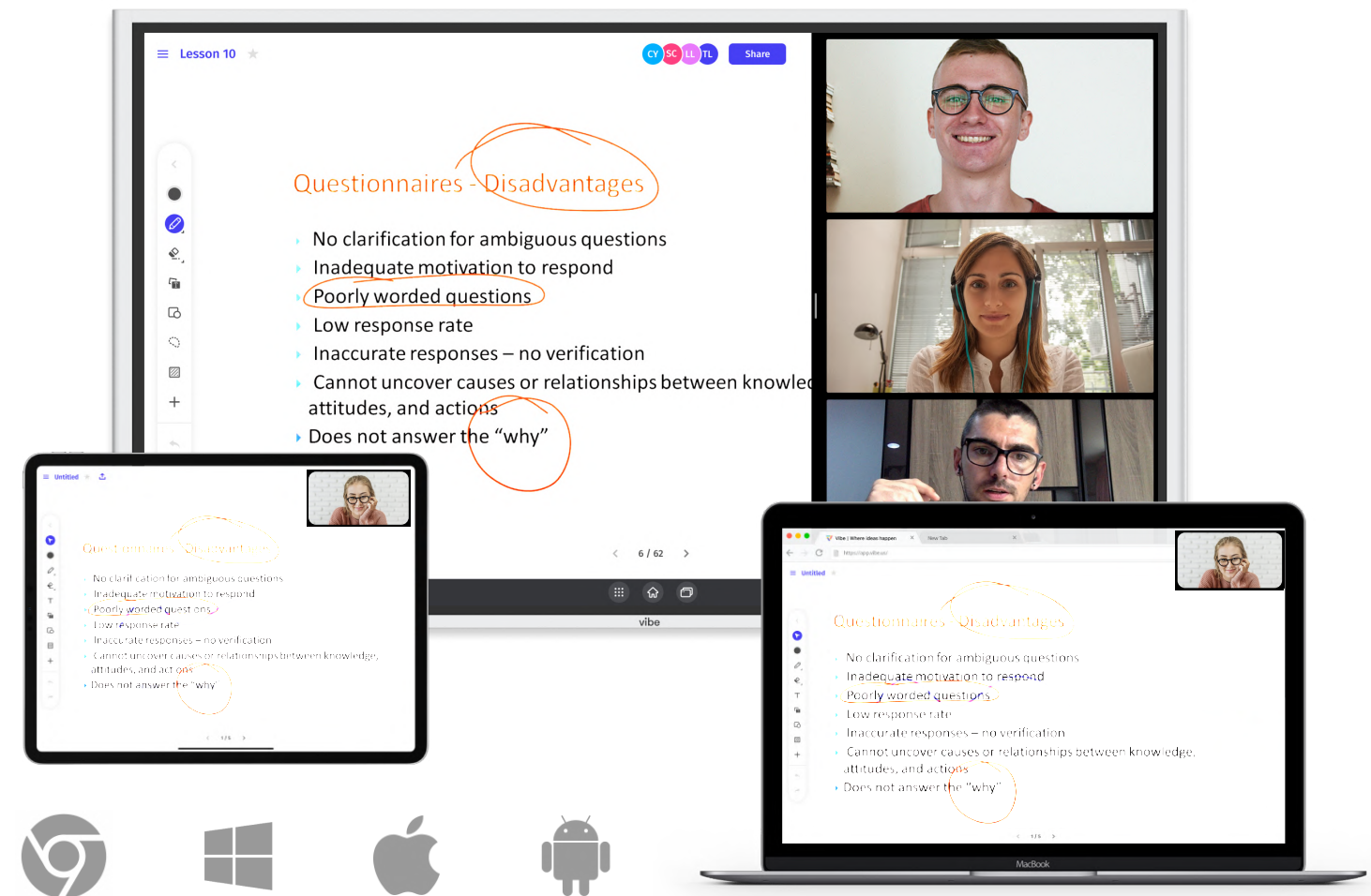
Read how Dr. Henry Silverman at the University of Maryland's School of Medicine teaches this way with Vibe here.

The screenshot displays a Vibe video conference interface. On the left, a whiteboard titled "Electrophilic Aromatic Substitution Summary" contains handwritten chemical reactions and notes. The reactions include Friedel-Crafts Acylation, Friedel-Crafts Alkylation, Sulfonation, Nitration, Chlorination, Bromination, and Iodination. A red circle highlights the Friedel-Crafts Alkylation reaction, and a blue dashed circle highlights the Iodination reaction. A note in red text states: "Note how all of them have an electrophile and on acid (+.3 H₂ FeCl₃ FeBr₃)". On the right, three video thumbnails show participants: a woman with glasses, a man with glasses, and a woman with a headset. The Vibe interface includes a top bar with "Untitled", "Share", and user initials, and a bottom bar with a timestamp "12:30 AM | Mon, July 16" and a "vibe" logo.



Use your favorite device

BYOD (bring your own device) has been a popular practice in the corporate world for years, and its benefits are being seen increasingly in education. Vibe allows participants to collaborate interactively on projects in the Vibe Cloud from the device of their choice, from the 55" 4K screen of the Vibe board, to computer browsers on Mac or PCs, to personal iPad and Android tablets. One can even view Vibe boards from smartphones like iPhones and Android, putting lessons directly into students' hands.



The background is a vibrant yellow color. It features several overlapping, semi-transparent shapes in a lighter shade of yellow, including circles and rounded rectangles. A solid black horizontal line runs across the middle of the image, starting from the left edge and ending just before the text.

Why Vibe

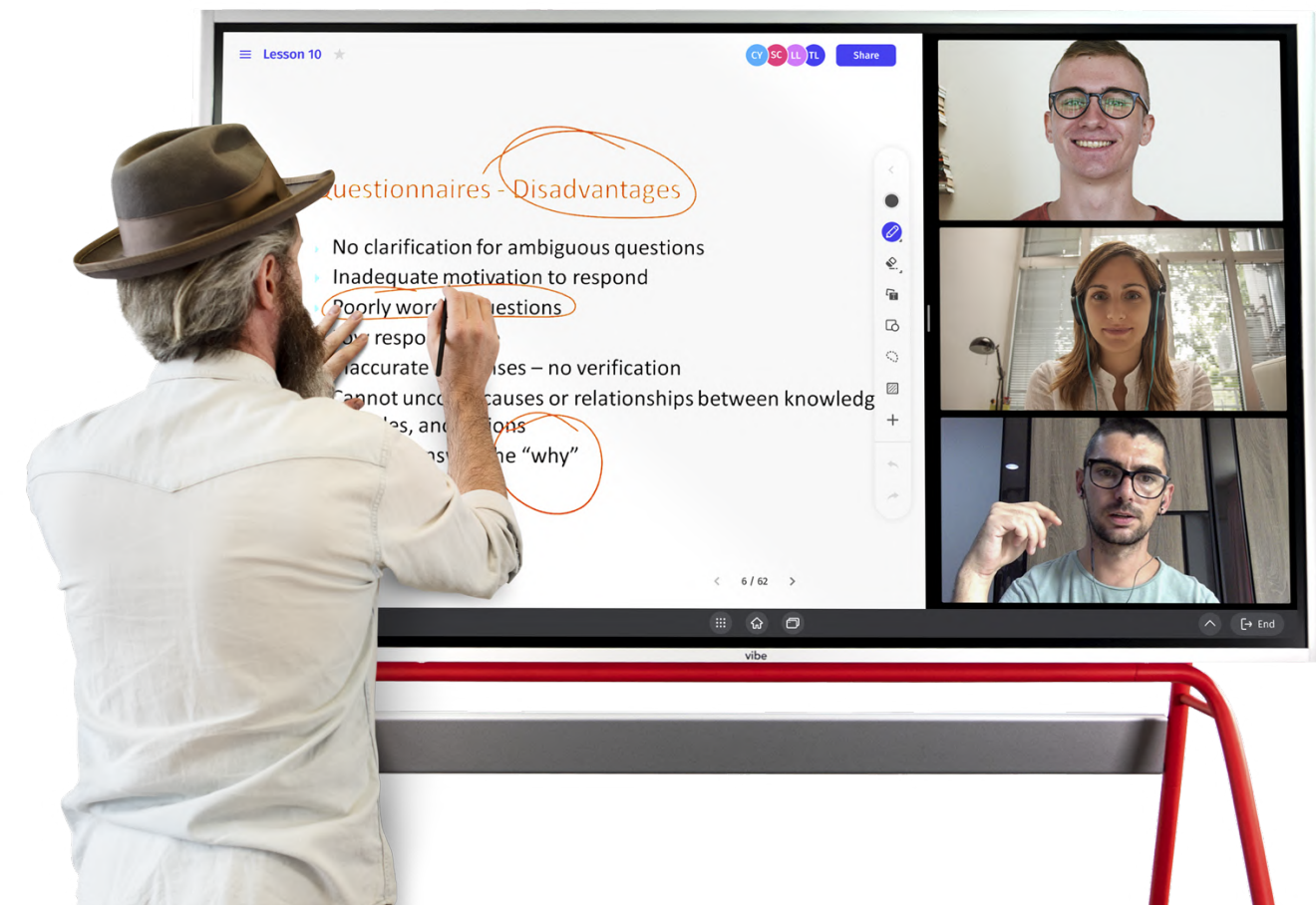
Why Vibe?

Introducing new tools takes a period of adjustment. Fortunately, whiteboards are a familiar medium that teachers, students, and parents are likely to have used in the past. Vibe takes this ease of use and modernizes the functionality by making it easy to save, share, and collaborate in real-time.

To ensure rapid and simple adoption, Vibe is designed to work with the apps that your team already knows and uses rather than locking your organization into a single ecosystem. There's no need for teachers to relearn a suite of new software, and they can continue using lessons that they've already built instead of rebuilding them in a new format.

While other smart boards—like Promethean ActivPanel, SMART Board, and Newline—have focused on serving educators, the vast majority have been built on the premise that learning is done in a physical classroom. Vibe has been built from the ground up for remote collaboration and all of the unique challenges that entails.

Finally, Vibe's value comes at a competitive price while still managing to outpace competitors' functionality. It's the smart solution for engaged education.



Compare Brands



55" Vibe interactive whiteboard



65" Promethean ActivPanel Nickel



65" Smart Board 6000 series



65" Newline TT-6519RS

Real-time Whiteboard



Cloud Storage



Multi-window Support



Wireless Screenshare



Video Conferencing



Infinite Canvas



App Store



Dropbox, OneDrive,
Google Drive, Integration



Price of Board

\$2,999

\$2,999

\$4,999

\$4,289

Talk to an expert?

<https://vibe.us>

[Book a Demo](#)



Please contact sales@vibe.us for any questions on your specific needs and requirements

