The Problem

Covid-19 has disrupted learning in our school district. Even now, hundreds of our students are learning remotely. While it appears that most students will be learning in person or the foreseeable future, it is not clear when all of our students will return to the classroom.

CleverTouch boards are the next generation in instructional display technology for classrooms. The boards serve as a bridge between students sitting in a classroom and students learning remotely. The teacher has the ability to seamlessly share screens from multiple student devices, which will help bridge the gap between in-person and remote learning in our high school.

Project Description

The overall goals of Carroll County High School are to improve school culture, student engagement, student collaboration, student communication, and to increase reading/math/science proficiency scores, while reducing the gap for our special education students. While we are currently transitioning out of a distance-learning model, the future is unclear. Even now, many students are learning from home by choice or by necessity. In order to blend in-person and distance-learning, our school is in need of new technology to meet this need.

According to Marzano and Haystead (2009), by using interactive white boards and all of their features, students have shown between a 16 and 31 percentile point gain in student achievement.

The interactive white board Carroll County High School would like to provide our students and teachers is the Clevertouch Interactive Panel. Roughly one third of our teachers have access to these boards. We are working to provide equitable instruction for all students, and additional boards will help us move in that direction.

The Clevertouch Interactive Panel meets our needs in many ways.
- The board allows teachers to record direct instruction through notes, live examples of math problems, writing examples, etc. At the end of the instruction, students will have a QR Code that they can scan. All the notes on this board will be digitally available to them for download.
- The board allows teachers to cast direct instruction to a student device. We will utilize this feature for expelled students and in-school suspension students. This provides these students with direct instruction from a certified teacher even though they are separated from the general population.
- As a one-to-one school, teachers need an increase in authentic/meaningful use of our student devices. These interactive displays allow them to cast student computers to the boards so that student work samples can be analyzed for classroom teaching in real-time. Students will receive real-time feedback (from the teacher and their peers) on their work instead of having the delay of traditional feedback.
- The interactive display connects automatically to G-suite to allow our teachers and students seamless integration with Google Drive, Docs, Sheets, Slides, Forms, etc. Using these will allow teachers to integrate their lessons easily into Google Classroom (the high school's Learning Management System).
- Each board has a 20-point touch system, which means they allow for student collaboration. Up to 20 students at a time could interact with this board. They provide opportunities for student-to-student communication, collaboration and engagement.
- There are multiple math tools located within the software for student engagement.
- The boards are remote managed. The district would have control to push apps and manage the boards to prevent an extra burden on the teachers.

- The boards allow communication out to every interactive display in our building from a central location. The principal can do morning announcements from the office and be visible to all students with audio and video. We can alert all students of emergency situations with the click of a button from our phones for things such as fire drills, lockdowns, etc.
- Teachers would have access to timers with the click of button on-screen to help with [time management on a block schedule](#).
- The boards provide an increase in opportunity for project-based learning, labs, learning stations, etc.

In short, Clevertouch Interactive Panels allow content to be taught in a new way. Students who are working with math problems can physically manipulate parts of the problem through the touchscreen. In history, the entire class can take a three-dimensional tour of an ancient battlefield. In language arts, students can peer review writing samples even if half of the class is out through distance-learning.

Now more than ever, seamless integration of content across distance is critical to student learning. Additional Clevertouch Interactive Panels will allow more of our teachers utilize these powerful tools.

Here is what one of our teachers had to say:

"The CleverTouch board has made my math lessons come to life with a range of interactive math tools. Students are able to complete such tasks as pouring liquid between beakers to calculate volume amongst other things, measure lines and create graphs. Not only is there text recognition, but there is also a revolutionary formula recognition feature, automatically turning handwritten formula into text which help students depict the information being written or the board."

COVID-19 has been challenging for everyone. While we have done our best during a time of 100% distance-learning, we know that we have ground to cover. Our students recently returned to in-person instruction, and we know that many of our students have a lot of ground to cover. It is critically important that we are able to meet the needs of our students in person as well as for students who are learning remotely for the remainder of this year and beyond.

Ultimately, the purpose of technology in education is to overcome barriers. Clevertouch boards will allow our teachers to overcome the biggest barrier to learning that we face going forward, which is the remainder of our students who are still learning from home as well as the possibility of future school closures, depending on direction COVID-19 and its variants take.

Thank you for your time and consideration of this application. Together, we can ensure that our students are prepared for the future that is very much uncertain. However, we are optimistic that by leveraging human expertise and new technologies, students will be prepared for what may come.

Evaluation plan

Carroll County High School administrators will track engagement of remote and in-person students over the duration of remote learning. If and when remote learning terminates, engagement of in-person students will continue.

Engagement will be based upon qualitative surveys sent to teachers in the building. This data will be used to justify possible use of additional boards, and the data will also be sent to the R.C. Durr Foundation as a follow-up report as requested.

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