

The Great Display Refresh of 2020

Establishing a baseline of interactivity and engagement for all classrooms in Denton ISD.



Susan Cheatham

Robert Pierce

Ross Garison

Tim Huynh

Problems to solve



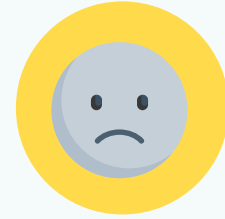
Hardware

Our current projectors lack modern features that would support new pedagogies and management capabilities.



Bulbs

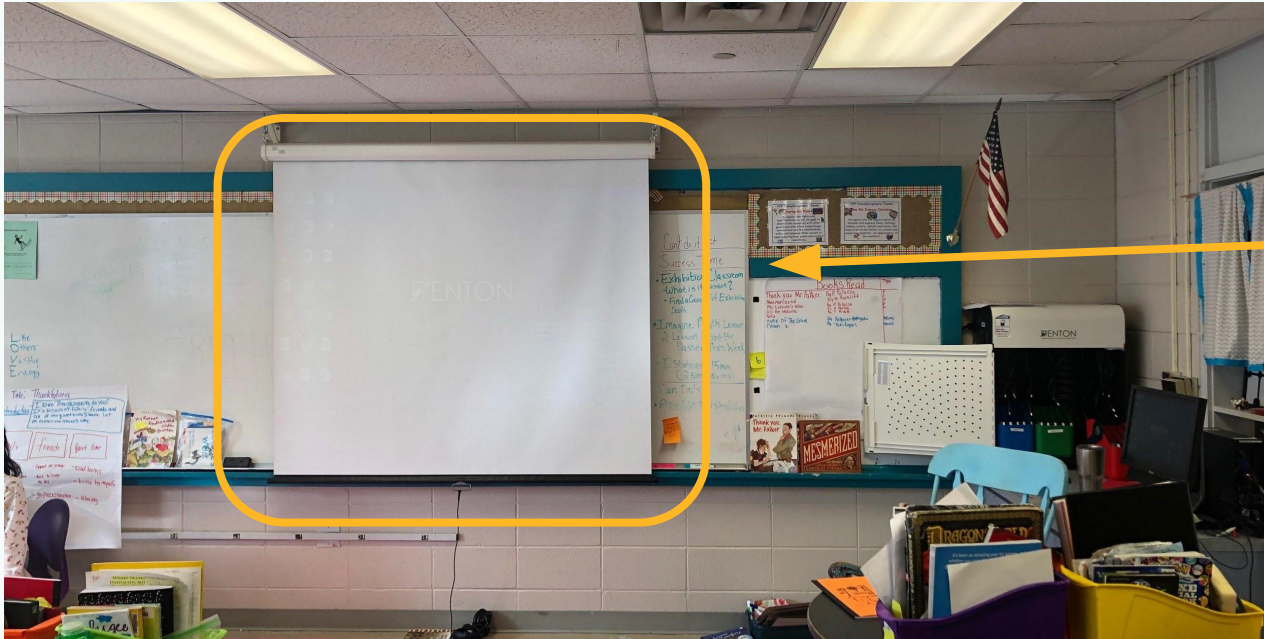
Replacement bulbs for projectors are becoming more and more difficult to find.



Teachers

Teachers are becoming increasingly hamstrung by poor brightness, lack of features, and bulb shortages.

Current Environment



On

Current Environment

60" Display



Scope

Instructional spaces without existing interactive displays

- Core Content Areas
- Computer Labs
- Libraries
- Fine Arts
- CTE
- EXPO/Pull Out
- SPED
- Mandatory Electives
- Optional Electives

Not Included

- Athletics
- Gyms
- Offices

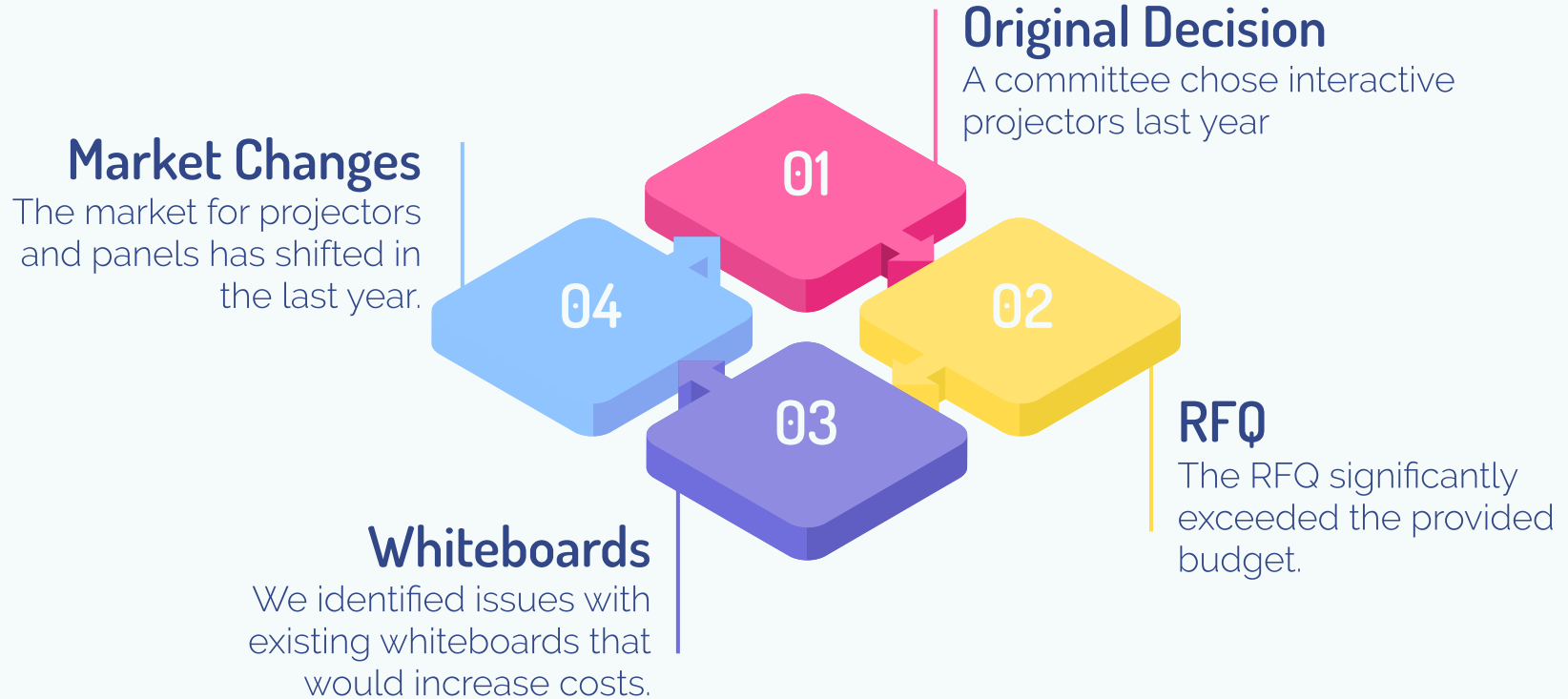
Covered by FF&E

- DHS
- SMS
- Wilson

Additional Variables

- Current use of space
 - Location of network drops, connections, etc.
 - Location of teacher unit
 - Location of current projector
- Possible relocation of electricity and data lines
- Ceiling height
- Antiquated connections (VGA)
- Length of cabling and degradation of signal
- Wall material (sheetrock, concrete, cinder block, etc.)

Back to the Drawing Board



Committee

Campus

Guyer High School

- DeCorian Hailey
- Kylee Irvin and students
- Monica Colson and students
- Stephanie Riley and students

Hawk Elementary

- Robin Brownell
- Joseph McGee and students
- Darla Arnold and students

McMath Middle School

- Buddy Dunworth
- Natasha Driedger and students
- Amanda Wagemann and students

Central

C&I

- Mike Mattingly
- Dan Ford
- Ross Garison
- Lisa Thibodeaux
- Sandy Brown

Technology

- Ernie Stripling
- Robert Pierce
- Sandra Nulty
- Susan Cheatham

Desired Outcomes

Interactivity

Visible Learning

Manageability

Long Life

Positive Disruption



Visible Learning



Panels vs Projectors

	Projector	Panel
Points of Touch Interactivity	8	10 writing/20 touch
Annotation	✓	✓
Document Camera Compatible	✓	✓
Screen Sharing Visible Learning	✓	✓
Manageability Manageability	a	✓
Warranty Long Life	5 years	5 years
Display Life	20,000 hours (14 yrs)	50,000 hours (34 yrs)
Onboard OS	✗	✓
Image Size	100"	75"
Equipment Cost	\$3,342	\$2,705

Pilot

7 classrooms

4 panels

1 projector

1 week per device

30 minutes of training per device



Teacher Feedback

Let alone the visual clarity and ability to see even in bright light. This was such a struggle and the current projector was barely visible.

The Apps and whiteboard are better than any thing I have ever used and the transition of clicking and instructing saves so much time.

Coming from someone who is not a big tech person, it was extremely easy to use and get used to.

Easier to work with and more teacher-friendly features.

It made my day run smoother by being able to control everything from the panel itself.

The multiple user feature on the white board was awesome for when multiple students were working at the same time.

The casting from your phone or Chromebook made it so easy to travel around the room and show student work or cast something I wanted students to see quickly.

Before being trained, I was able to jump on the whiteboard and begin working with it. It's very intuitive.

It allowed me to move/animate what was drawn or written on the board which was probably what I was most excited about.

Awesome panel. Easy to use. No lagging. Features were simple, but accomplished all of my needs in the classroom. The kids loved the interactive features and the whiteboard was the best I have used so far.

Just the possibilities that would offer for my classes is interesting to consider.

It is so amazing to have my teacher computer running, while being able to run all of my lessons in the front of the room.

My students struggled with collaboration and participation, but they were smiling, talking with each other, and creating art like like I haven't had the capability before.

From Kelley McGee at Borman

Texas Art Education Association Elementary Teacher of the Year

...I had a very early generation board when I was at EP Rayzor and loved the Epson technology at Adkins. But, this board is in a league of it's own! If I can advocate for the purchase of these boards in any way, please let me know. Every single age level PreK to 5th have used the board without any issues. It is so amazing to have my teacher computer running, while being able to run all of my lessons in the front of the room. The walking back and forth is not the best for instruction. The processor inside the panel makes a huge difference compared to a typical projector. The Apps and whiteboard are better than any thing I have ever used and the transition of clicking and instructing saves so much time. I know I have only had the board for three instructional days, but I am just floored by all that it can do. Let alone the visual clarity and ability to see even in bright light. This was such a struggle at Adkins, and the current projector was barely visible.

Student Feedback



Made with **Flipgrid**



Winner – Panels

Desired outcomes



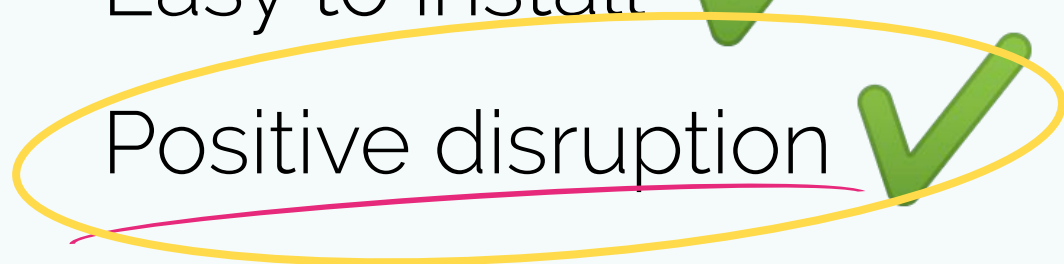
Cost effective



Easy to install



Positive disruption



Winner – Promethean ActivPanel Titanium

75" 4K Display

Android OS

50,000 hr life

20 touch points

4 pens/1 eraser

Palm detection

Classroom apps

Annotation

Standalone use

Central update management



Training Plan

Tier 1 – Day 0

One-pager with basic functions provided to teachers ahead of installation date. Zero disruption to classroom routine

Tier 2 – Week 1

Small group, in-person training covering panel features, including navigation, annotation, apps, and screen-sharing.

Savings

Approximately \$700 per classroom from last year to this year. (\$770,000 total)

Additional Project - Extron

Taking advantage of economies of scale to address the needs of another bond project.

- Extron is an existing district solution.
- Function as classroom audio, including bells, paging, and announcements.
 - Ducking feature
- Remote manageability tools.
- Remote support tools.
- Power savings management.
- Streamlines two solutions into one.



Questions?