



FEFPA

Florida Educational Facilities Planners' Association, Inc.



Audio Enhancement was founded in 1978 by Claudia Anderson with the simple idea that “learning begins with hearing.” As the mother of two children with hearing loss, Claudia wanted to provide them with the best education possible. While the first systems were designed specifically for the benefit of children with hearing loss, it quickly became clear that Audio Enhancement would help all students in the classroom by allowing the teacher’s voice to be heard clearly.

Today, Audio Enhancement continues to be owned and operated by the Anderson family. Audio Enhancement products improve student achievement, decrease teacher vocal fatigue and absenteeism, influence positive student behavior, and increase focus, attention, and classroom management. Audio Enhancement, Inc. continues to lead the industry with new and innovative solutions.

Audio Enhancement continues to innovate to provide solutions that improve the classroom environment and provide benefits for the entire educational environment and campus.



Technology for Today's Classrooms

Audio Solutions



SAFE System™
Signal Alert For Education



EPIC System™
Education Paging & Intercom Communications



VIEWpath®
Video Interactive Education Window

Audio Solutions

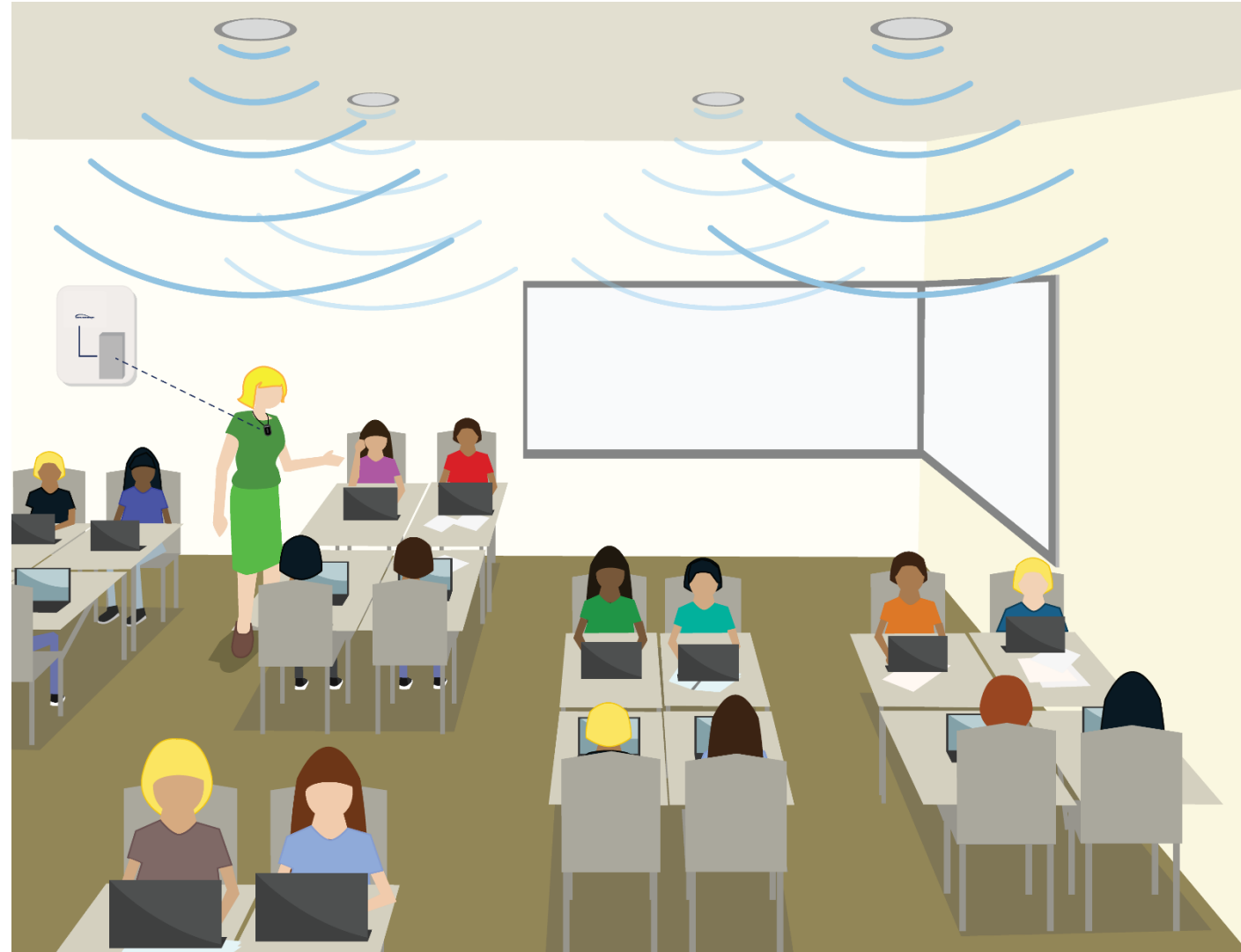
Common Classroom Issues:

- Students off task
- Student engagement and participation
- Students not hearing their instruction clearly
- Teacher vocal strain
- Teachers having to project their voice



What is Audio Enhancement?

Louder vs. Clearer



Inverse Square Law

Distance Matters: $\Delta dB = 20 \log\left(\frac{d_1}{d_2}\right)$

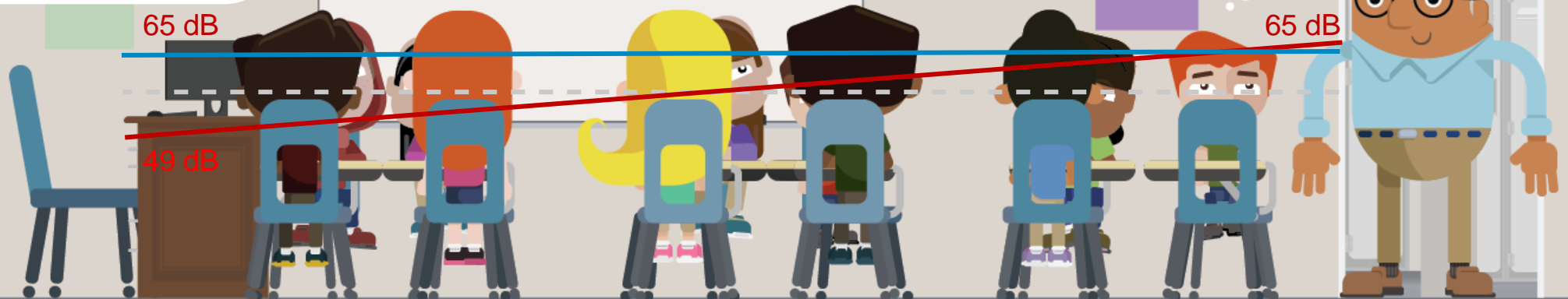
Sound **DECREASES** 6 dB
every time the distance is doubled

INVERSE SQUARE LAW

Teacher's voice without Audio Enhancement system (65 dB at 0ft–49 dB at 21ft)

Typical classroom noise level (55 dB)

Teacher's voice with Audio Enhancement system (65 dB)



The “Next Normal” Fall 2020?



When schools open again, will teachers be wearing masks? How will that affect students receiving instruction from their teachers?



Teaching with a mask?

Data



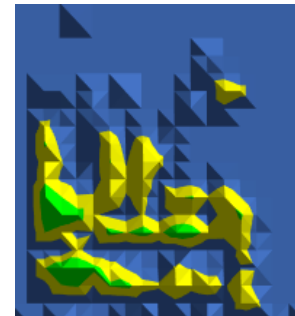
No Mask or Microphone
(Figure 1)





Teacher Mask, No Mic
(Figure 2)




Teacher Mask, Mic
(Figure 3)



 Optimal Intelligibility

 Better Intelligibility

 Limited Intelligibility

Lecture Capture: Learning Podcasts

Audio Enhancement Lesson Recorder

Recording Type: Full desktop with audio video

REC

Class Schedule

Entering your class schedule will cause Audio Enhancement's Lesson Recorder to automatically add the Class Name to the file name of the recording along with the date and time.

Monday Tuesday Wednesday Thursday Friday Saturday

Class Name	Start Time	End Time
	08:00AM	03:13PM
Geography	08:00AM	03:13PM

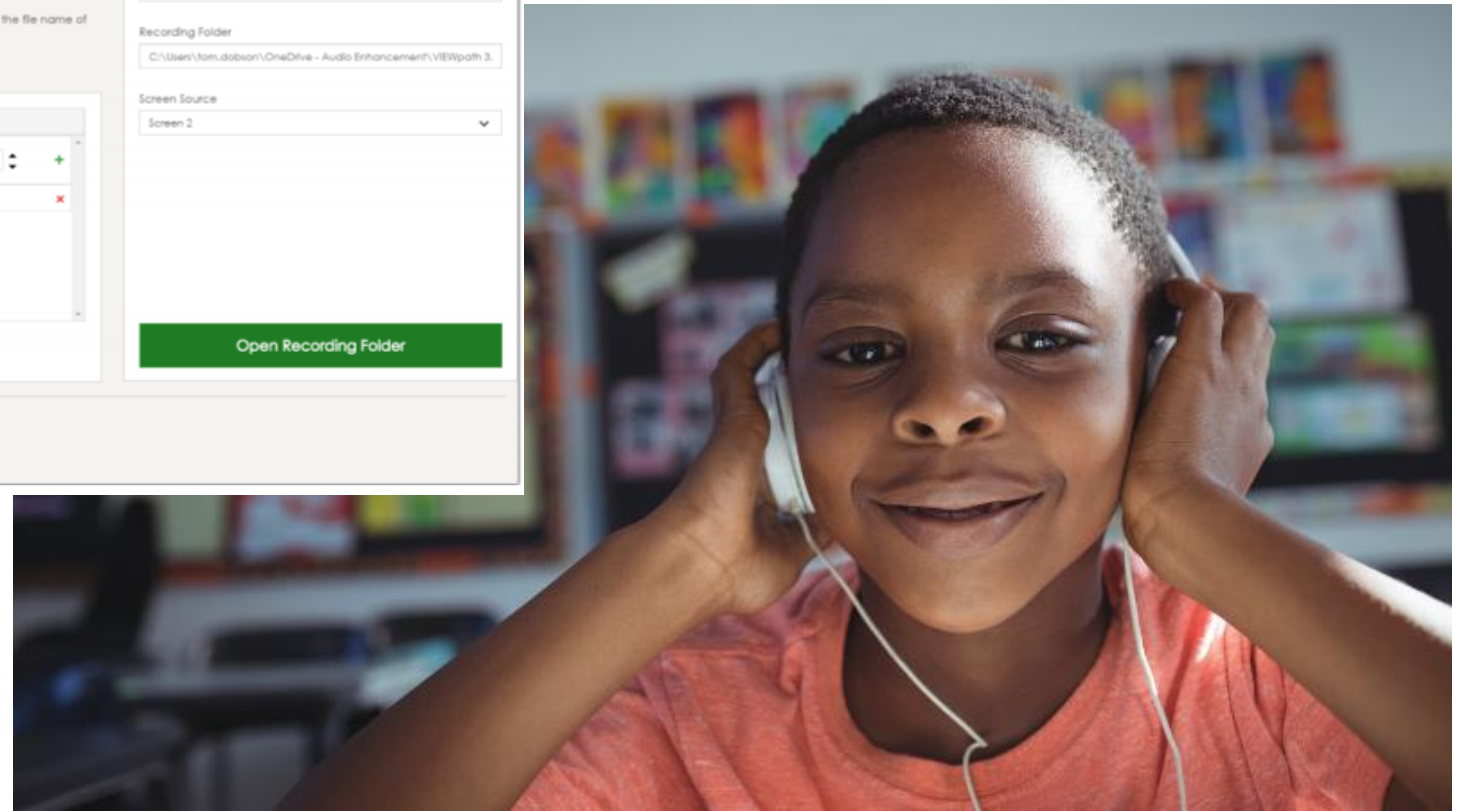
Video Recording Parameters

Teacher Name: Tom Dobson

Recording Folder: C:\Users\tom.dobson\OneDrive - Audio Enhancement\VIEWpath 3.

Screen Source: Screen 2


Open Recording Folder



Audio Research Findings

10%
Higher

Students in amplified classrooms scored, on average, **10 percent higher** on the Florida Comprehensive Assessment Test than students in classrooms without sound enhancement.

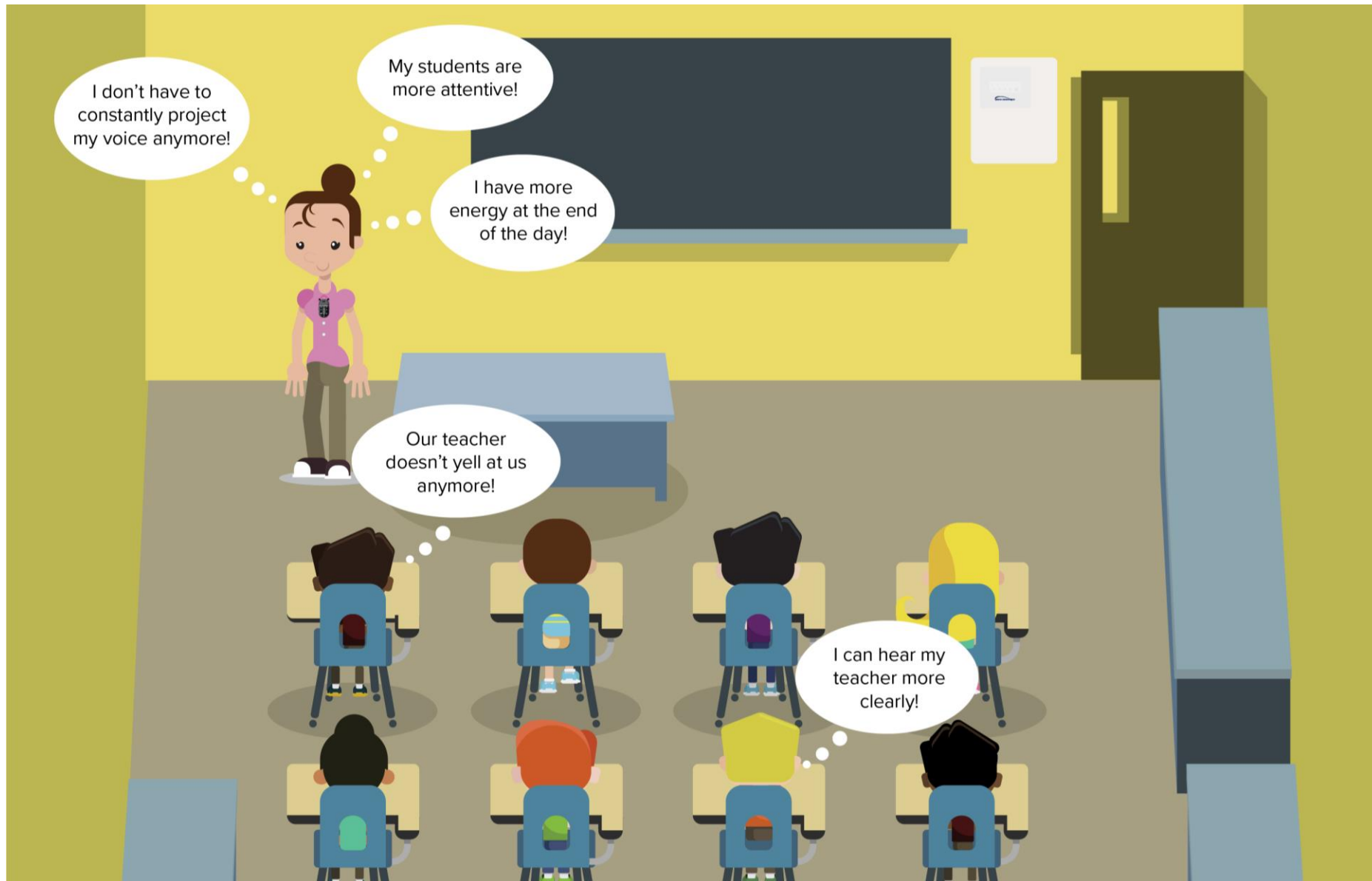
 Test Scores

Washoe County School District (Reno, Nevada) found that students' average reading and math **standardized test scores increased** more than the average scores of students districtwide in unamplified classrooms.

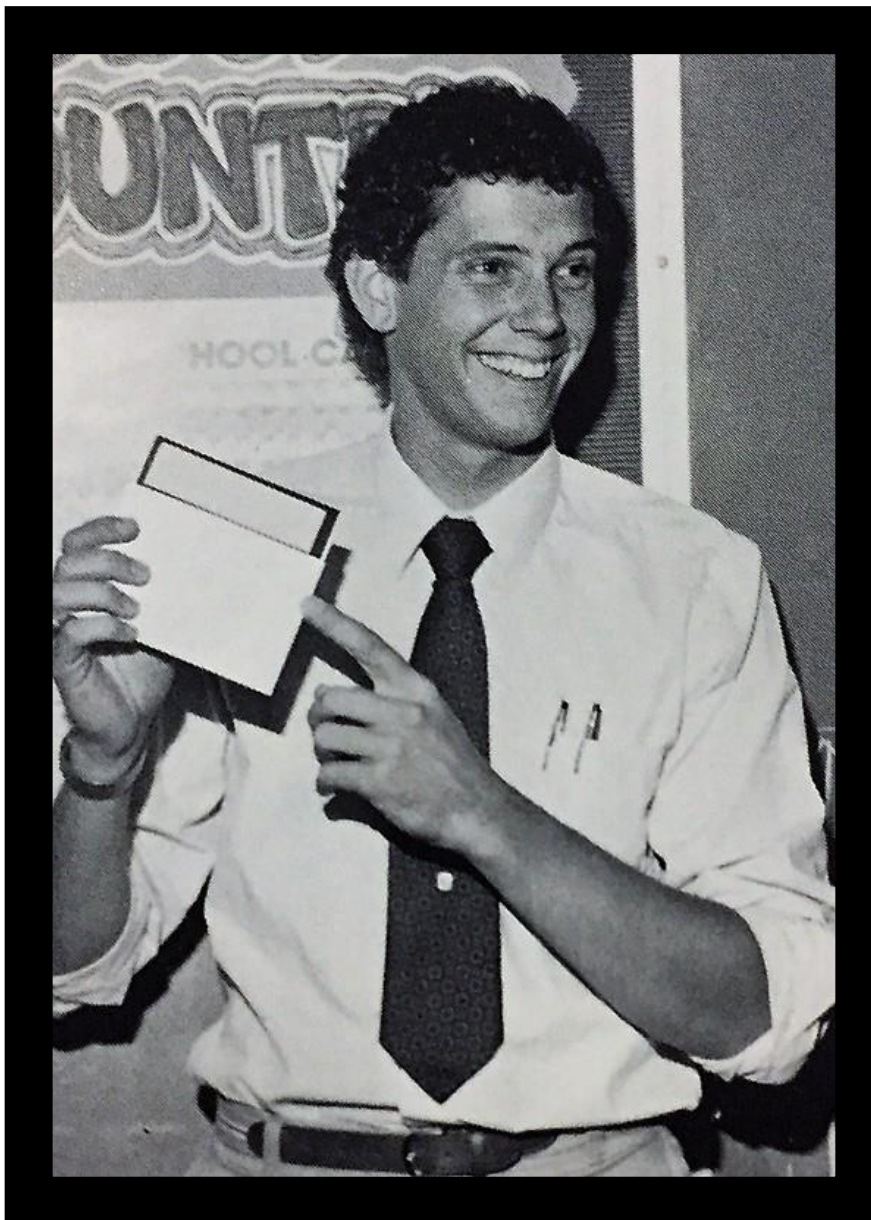
17%
Increase

Students in amplified elementary classrooms showed an average **17 percent increase** in their overall on-task behavior.

Benefits



Gary Evans – New Teacher



***Palm Beach Gardens
Community High School***

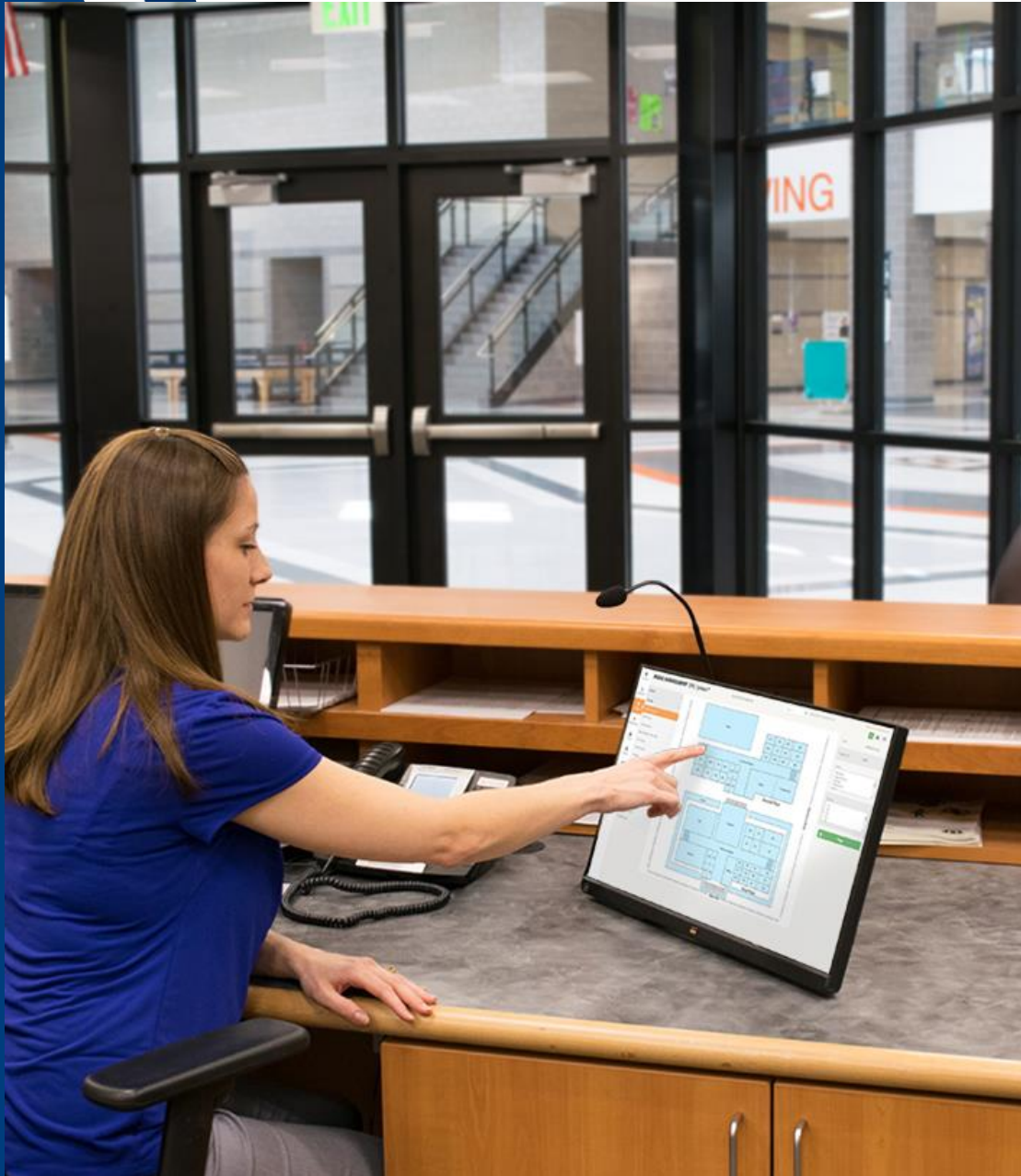
The Year _____ ?

EPIC System™

Education Paging & Intercom Communications

Common School Communication Issues

- Integrate all security systems
- School zoning
- Bell scheduling
- Mass communications
- Effective communication



Intercom

Home

Intercom

Paging

Notification

Alerts

StopAll

Schedule

Settings

Help

AUDIO ENHANCEMENT EPIC System™

Lincoln Academy

Search

04-01-2020 11:49:49 AM

Welcome schooladmin2

Maps

Rooms

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

Fields

213

216

219

222

214

217

220

223

215

218

221

224

2nd Floor Hallways

211

209

207

205

201

203

212

210

208

206

202

204

Library

Computer Lab

Second Floor

Gym

Commons

Outside

118

116

114

117

115

113

67

Cafeteria

119

122

121

120

Offices

101

102

107

108

103

104

109

110

105

106

111

112

First Floor

Westley Ave.

Samwise Blvd.

Isaac Newton

Room 113

Description NA

Teacher Isaac Newton

Ext Number 113

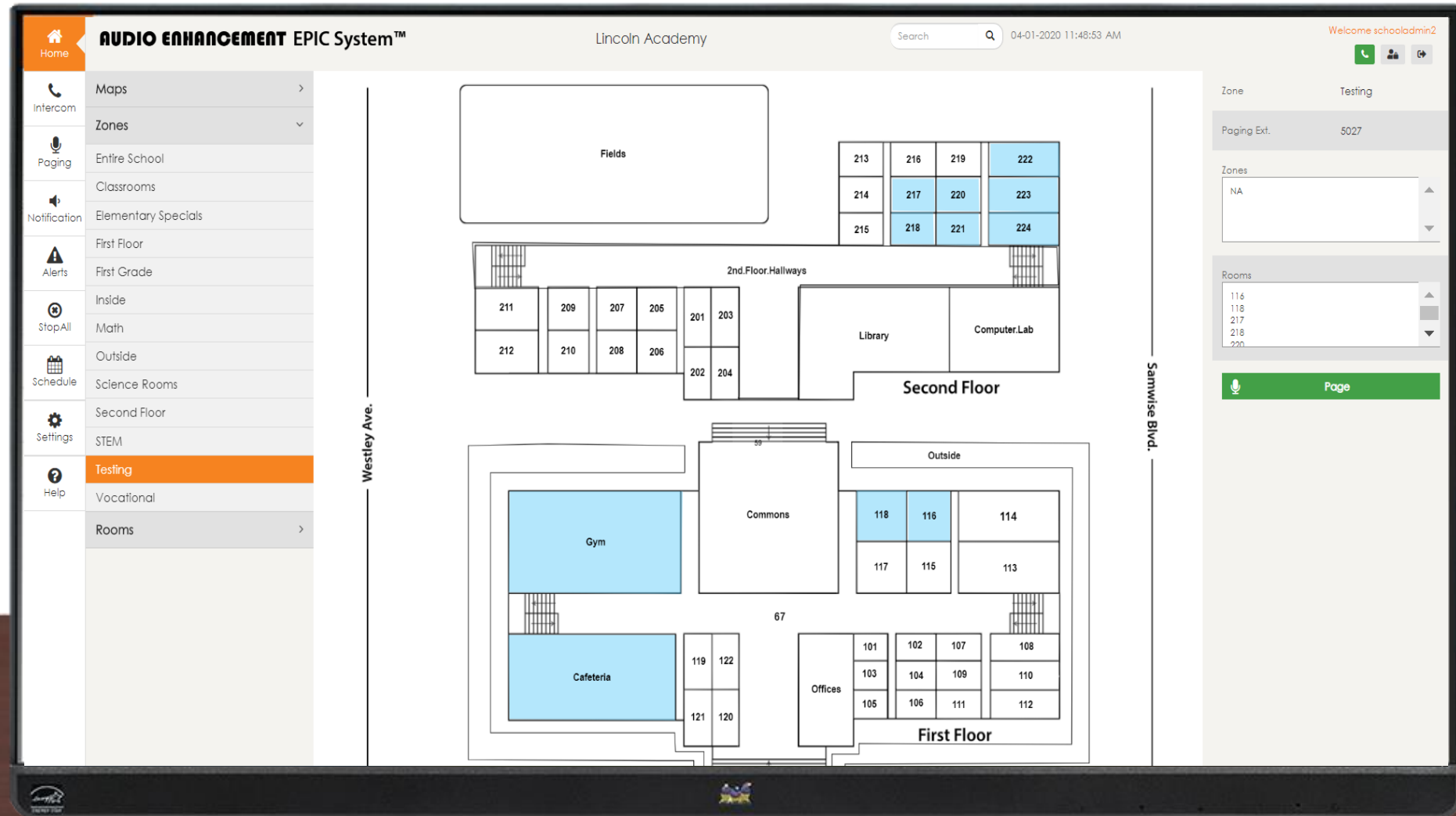
Next Bell 1st lunch end 12:10:00 PM

Devices 113-MS450

Zones First Floor Classrooms Inside Math STEM

Intercom

Paging



AUDIO ENHANCEMENT EPIC System™

Lincoln Academy

Search 04-01-2020 11:48:53 AM

Welcome schooladmin2

Zone: Testing

Paging Ext.: 5027

Zones: NA

Rooms: 116, 118, 217, 218, 220

Page

Second Floor

Fields

213	216	219	222
214	217	220	223
215	218	221	224

2nd Floor Hallways

211	209	207	205	201	203
212	210	208	206	202	204

Library

Computer Lab

First Floor

Gym

Cafeteria

Commons

Offices

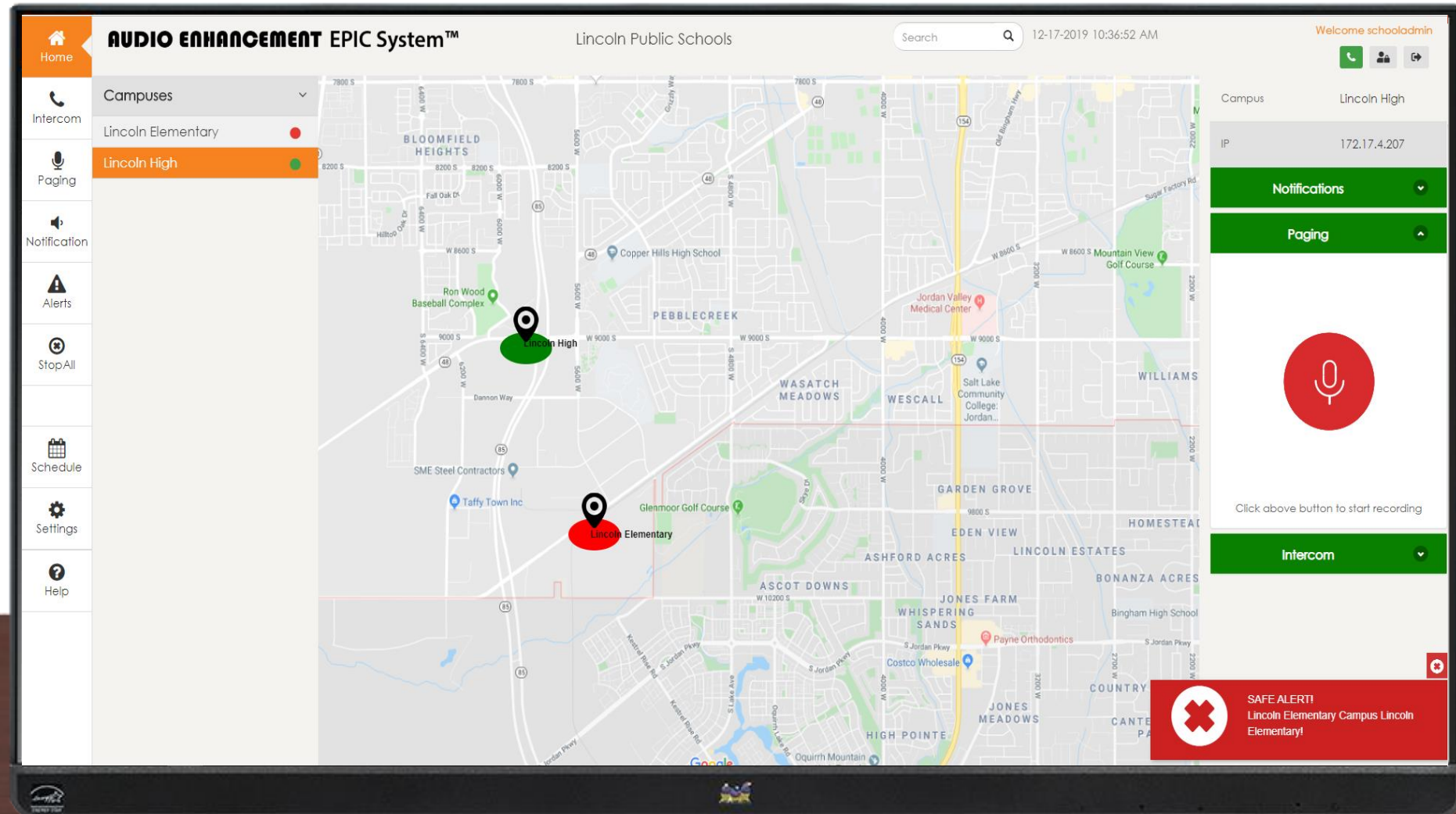
118	116	114
117	115	113

101	102	107	108
103	104	109	110
105	106	111	112

Westley Ave.

Samwise Blvd.

District View - District Paging



AUDIO ENHANCEMENT EPIC System™ Lincoln Public Schools

Search 12-17-2019 10:36:52 AM Welcome schooladmin

Campuses

- Lincoln Elementary
- Lincoln High**

Notifications

Paging

Intercom

SAFE ALERT!
Lincoln Elementary Campus Lincoln Elementary!

Bell Scheduling

Home

Intercom

Paging

Notification

Alerts

StopAll

Schedule

Settings

Help

AUDIO ENHANCEMENT EPIC System™

Lincoln Academy

Search

08-14-2019 10:57:20 AM

Welcome schooladmin

2019 - 2020

Bells

Save

Clear Selection

August - 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

September - 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October - 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November - 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

December - 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

January - 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February - 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

March - 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April - 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May - 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

June - 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

July - 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Add Day Type

+

Staggered Start Times

Home

Intercom

Paging

Notification

Alerts

StopAll

Schedule

Settings

Help

AUDIO ENHANCEMENT EPIC System™

Lincoln Academy

Search 04-23-2020 11:29:50 AM

Welcome schooladmin2

No Student Day

Friday

Full Schedule

Full Schedule Copy

Home Football Game

Late Start

Monday and Wednesday

Monday and Wednesday Copy

Morning Assembly

Pep Rally

Snow Day

State Testing Bells

Testing

Thursday Fast Day

Tuesday and Thursday

Add Day Type

Full Schedule Copy

Staggered Start Day

Apply

Copy

Delete

Bell Schedule

filter: Select Zones

Name	Time	Audio	Event	Zones	Action
Group 1 P1 Start	08:00:00 AM	Bell chime	scheduleBell	First Floor,First Grade,Inside,Outside,Science Rooms,STEM	
Group 2 P1 Start	08:30:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Inside,Outside,Science Rooms,Second Floor	
Group 1 P1 End	08:45:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Inside,Outside,Science Rooms,Second Floor	
Group 1 P2 Start	08:50:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Outside,Science Rooms,Second Floor	
Group 3 P1 Start	09:00:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Inside,Outside,Science Rooms,Second Floor	
Group 2 P1 End	09:15:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Inside,Outside,Science Rooms,Second Floor	
Group 2 P2 Start	09:20:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Outside,Science Rooms,Second Floor	
Group 4 P1 Start	09:30:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Inside,Outside,Science Rooms,Second Floor	
Group 1 P2 End	09:35:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Outside,Science Rooms,Second Floor	
Group 1 P3 Start	09:40:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Outside,Science Rooms,Second Floor	
Group 3 P1 End	09:45:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Inside,Outside,Science Rooms,Second Floor	
Group 3 P2 Start	09:50:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Outside,Science Rooms,Second Floor	
Group 2 P2 End	10:05:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Outside,Science Rooms,Second Floor	
Group 4 P1 End	10:15:00 AM	Bell chime	scheduleBell	Classrooms,First Floor,Outside,Science Rooms,Second Floor	

November - 2019

Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
5						1	2
12	3	4	5	6	7	8	9
19	10	11	12	13	14	15	16
26	17	18	19	20	21	22	23
	24	25	26	27	28	29	30

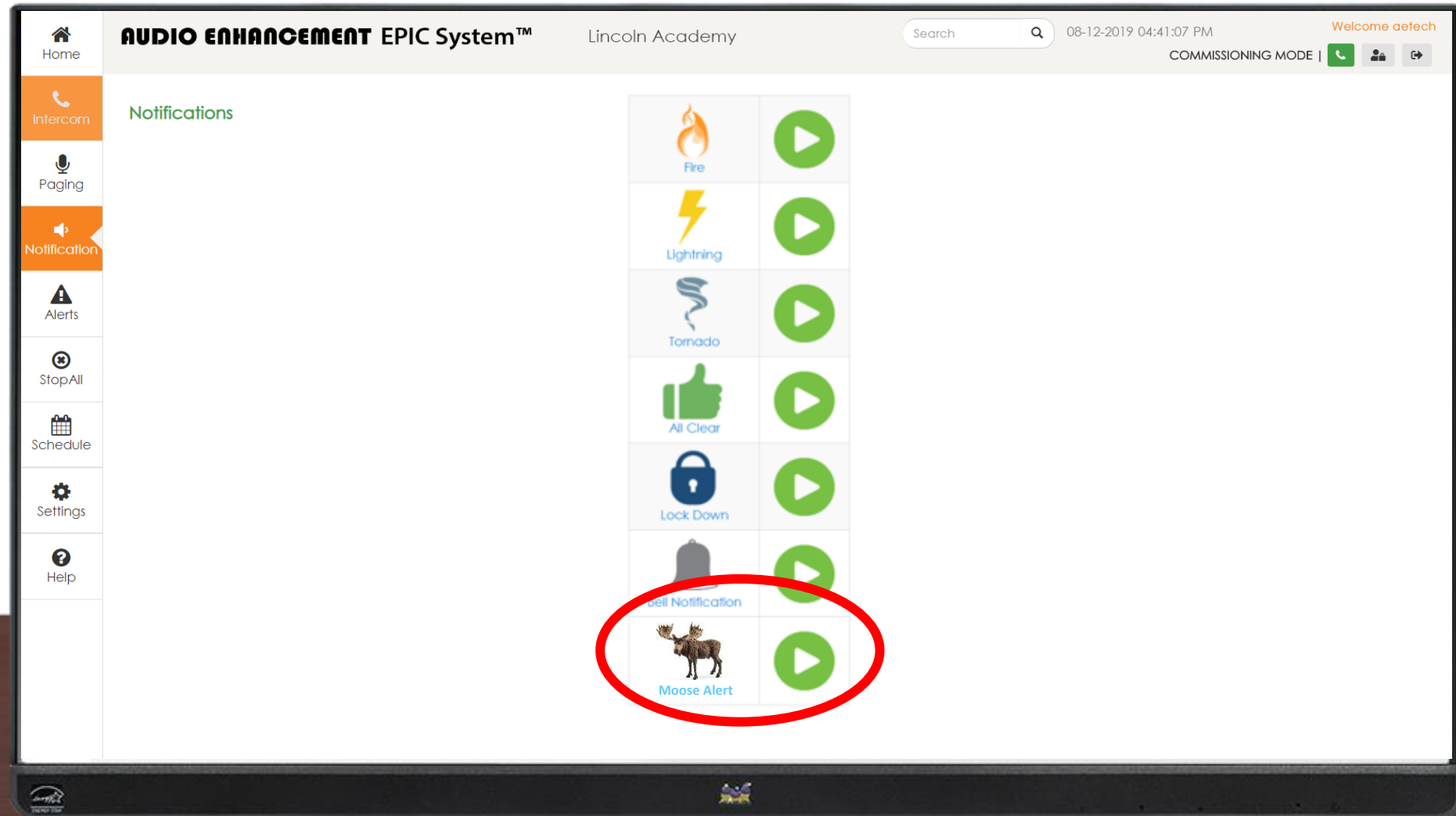
March - 2020

Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	1	2	3	4	5	6	7
8	8	9	10	11	12	13	14
15	15	16	17	18	19	20	21
22	22	23	24	25	26	27	28
29	29	30	31				

July - 2020

Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
6				1	2	3	4
13	5	6	7	8	9	10	11
20	12	13	14	15	16	17	18
27	19	20	21	22	23	24	25
	26	27	28	29	30	31	

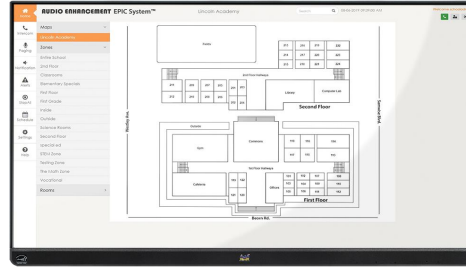
Schoolwide Notifications



Security Integrations



Fire Alarm



EPIC System™
Education Paging & Intercom Communications



SAFE System™
Signal Alert For Education



Audio Solutions



Phone System



Access Control

SAFE System™

Signal Alert For Education

Common Safety Issues:

- Available Panic button for teachers
- Response time / appropriate response
- Locating incident



“Signal Alert For Education”



- ✓ Medical Emergencies
- ✓ Discipline Issues
- ✓ Parental Situations
- ✓ Intruder

Requested by our customers

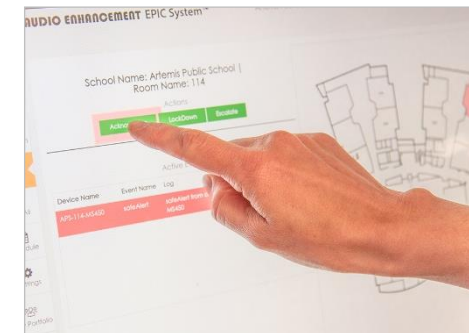
Teachers are wearing their mics every day

Discrete way to request help

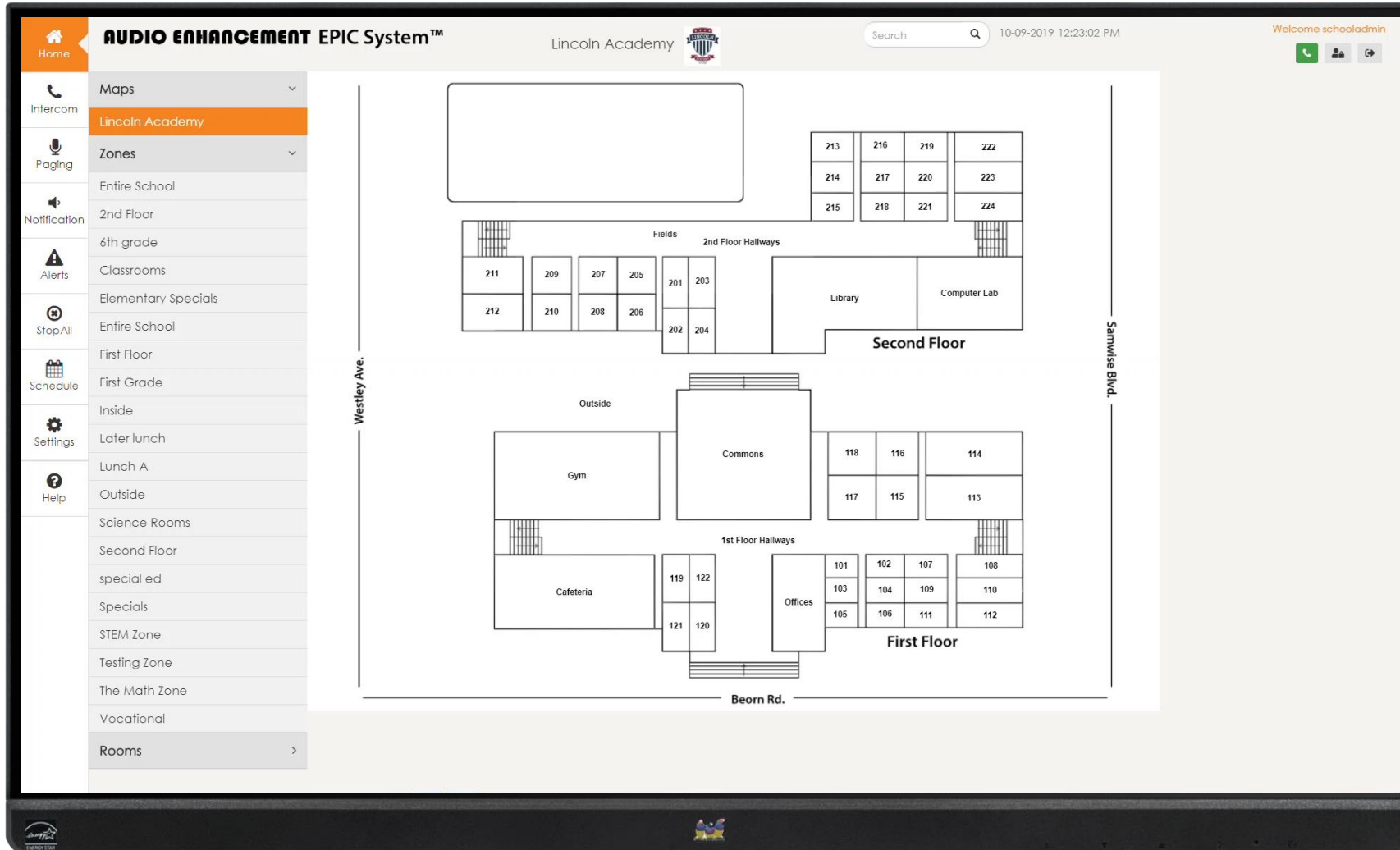
The alert is sent by teachers

Classroom Receiver

LED “Status-at-a-glance” Indicators



Front Office Notification

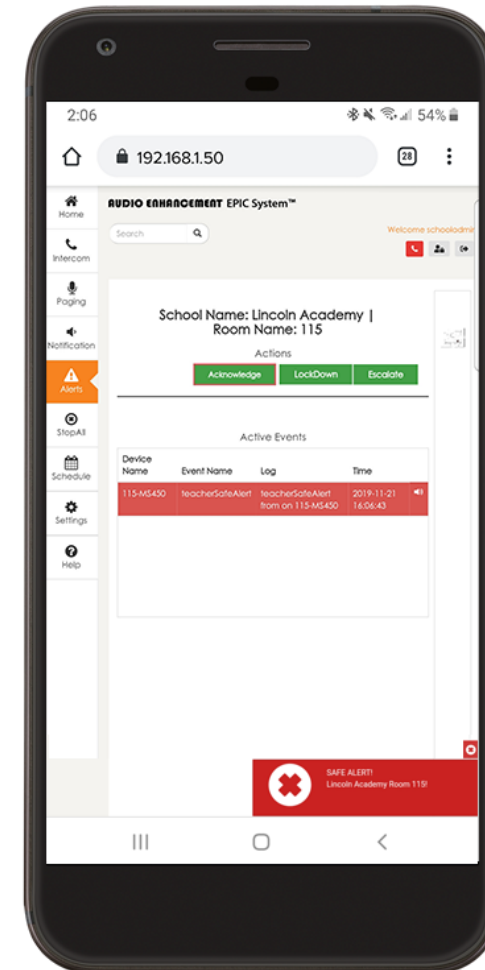
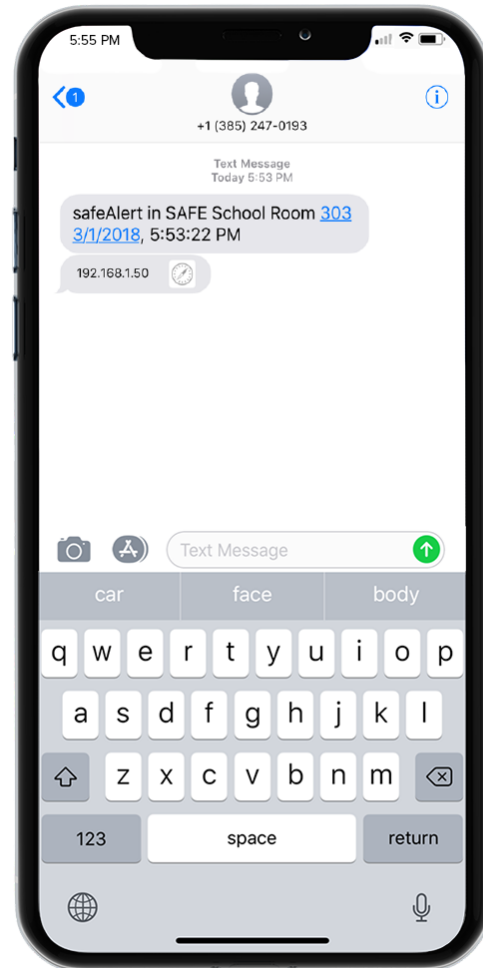


The screenshot displays the AUDIO ENHANCEMENT EPIC System™ interface for Lincoln Academy. The interface includes a sidebar menu on the left with various navigation options, a main display area showing a detailed floor plan of the school, and a top header with system information and user status.

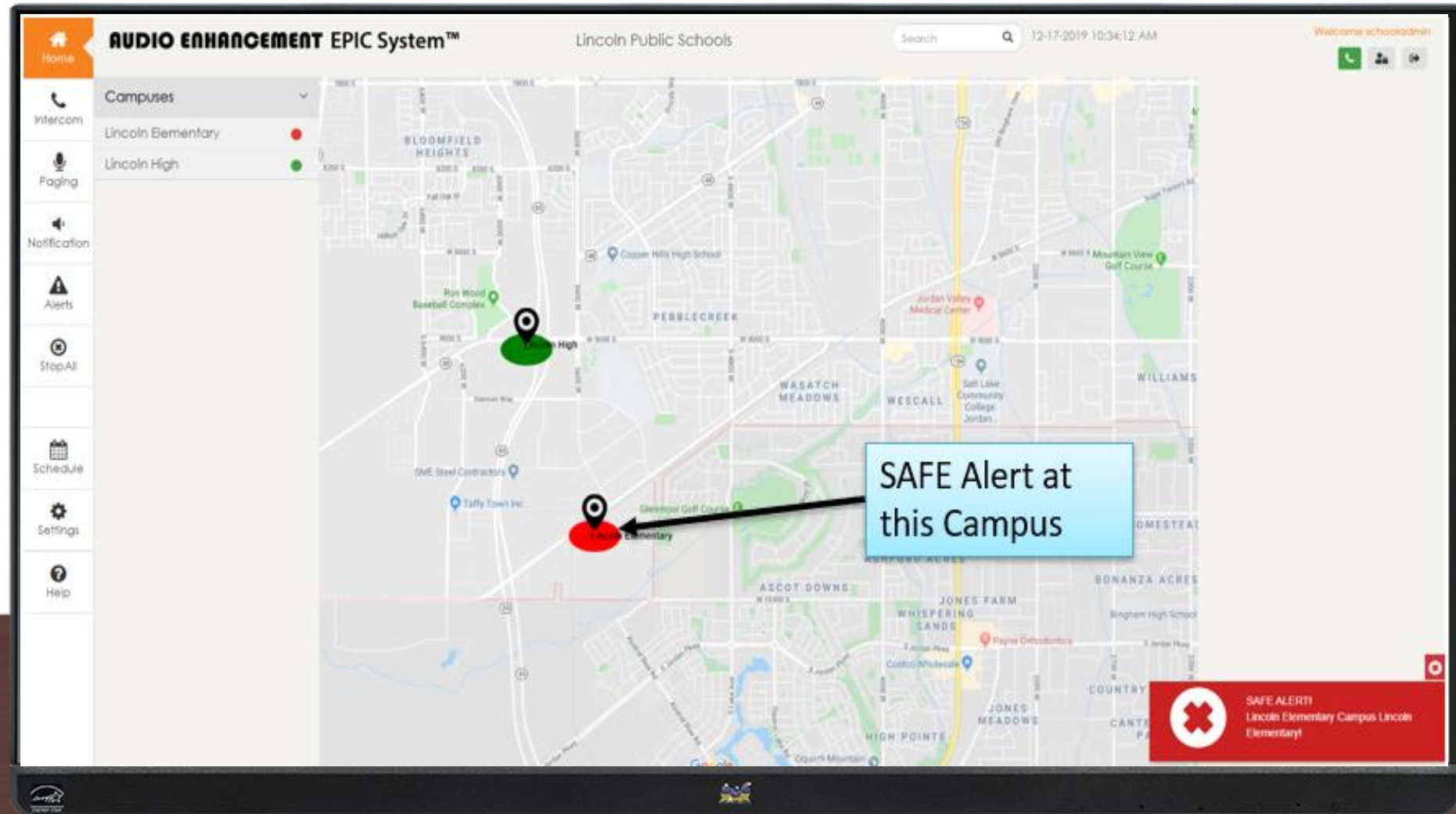
Interface Components:

- Header:** AUDIO ENHANCEMENT EPIC System™, Lincoln Academy, Search bar, Date/Time: 10-09-2019 12:23:02 PM, Welcome schooladmin.
- Sidebar Menu:**
 - Home
 - Intercom
 - Paging
 - Notification
 - Alerts
 - Stop All
 - Schedule
 - Settings
 - Help
- Main Display Area:**
 - Maps:** Lincoln Academy (selected)
 - Zones:**
 - Entire School
 - 2nd Floor
 - 6th grade
 - Classrooms
 - Elementary Specials
 - Entire School
 - First Floor
 - First Grade
 - Inside
 - Later lunch
 - Lunch A
 - Outside
 - Science Rooms
 - Second Floor
 - special ed
 - Specials
 - STEM Zone
 - Testing Zone
 - The Math Zone
 - Vocational
 - Rooms
- Floor Plan Details:**
 - Second Floor:** Includes a large empty box at the top left, a grid of rooms (213-224), 2nd Floor Hallways, Fields, Library, and Computer Lab.
 - First Floor:** Includes Outside, Gym, Commons, Cafeteria, 1st Floor Hallways, and Offices (101-112).
 - Orientation:** Westley Ave. on the left, Samwise Blvd. on the right, and Beorn Rd. at the bottom.

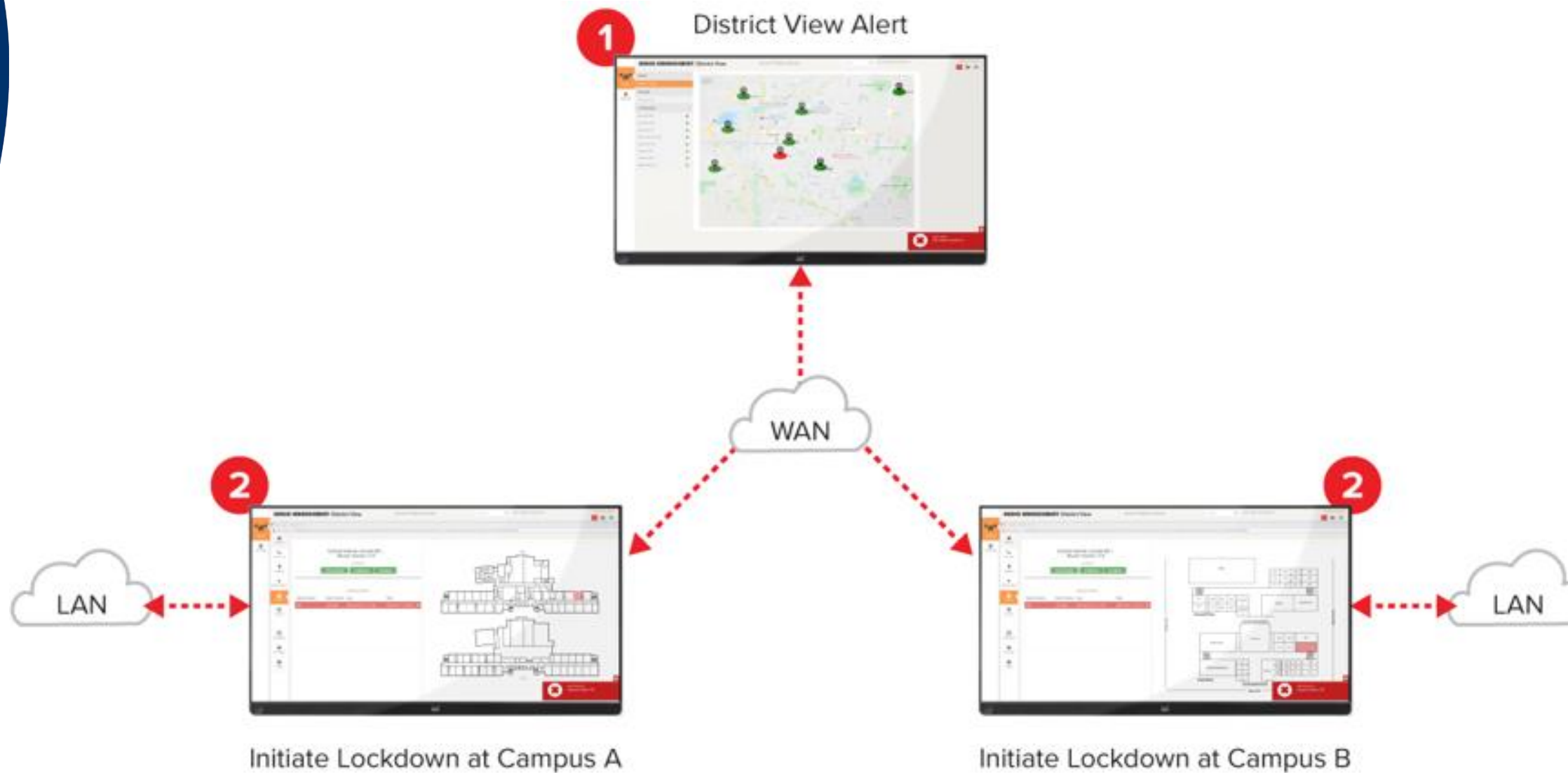
Texts and Email Alerts



District View - SAFE Alerts



District View - Nearby Lockdowns



VIEWpath®

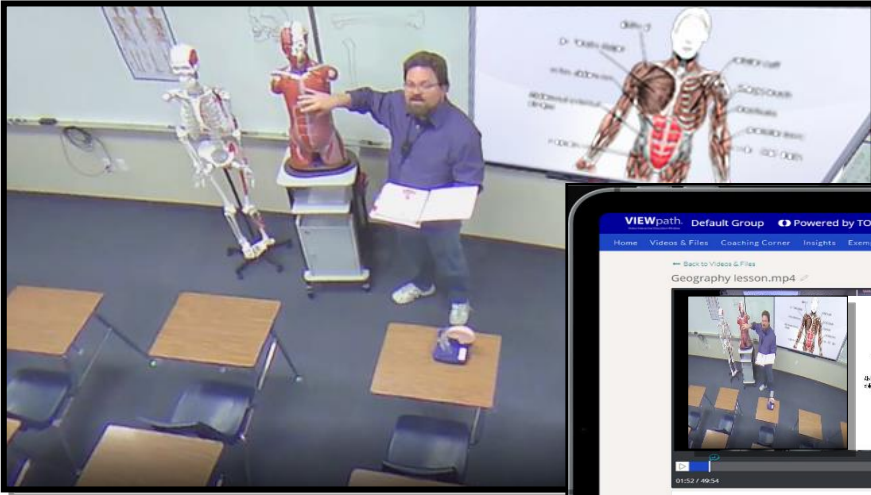
Video Interactive Education Window

Common Professional Learning Issues

- Available coaches
- Ability to self-reflect
- Sharing best practices
- Sharing content with students
- New teacher growth plans
- Time spent on observations



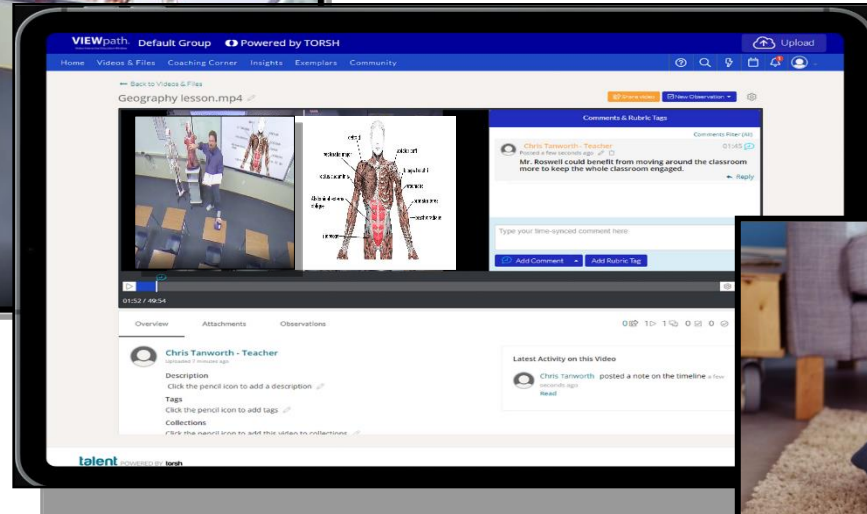
Create your own content



Create



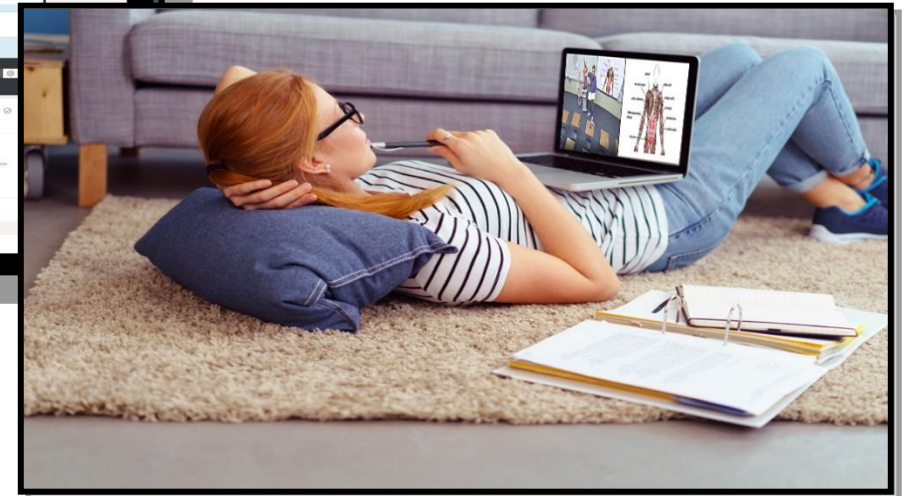
VIEWpath®
Video Interactive Education Window



Manage



Remote
Learning



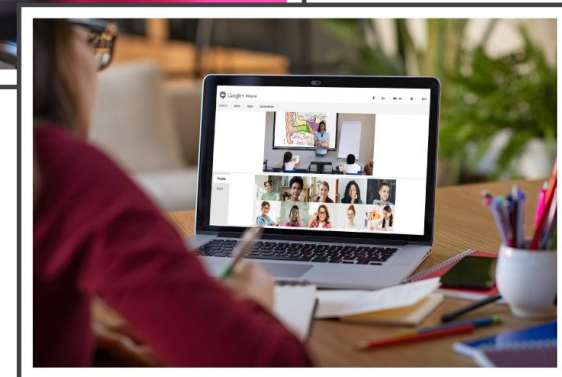
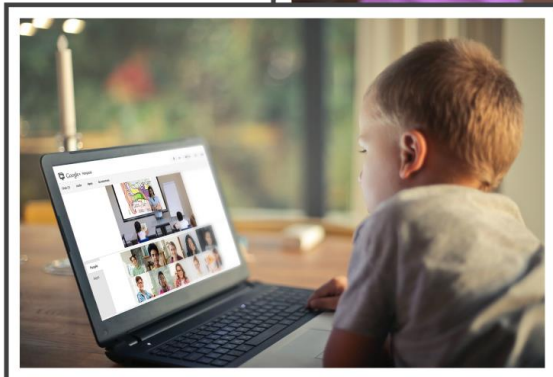
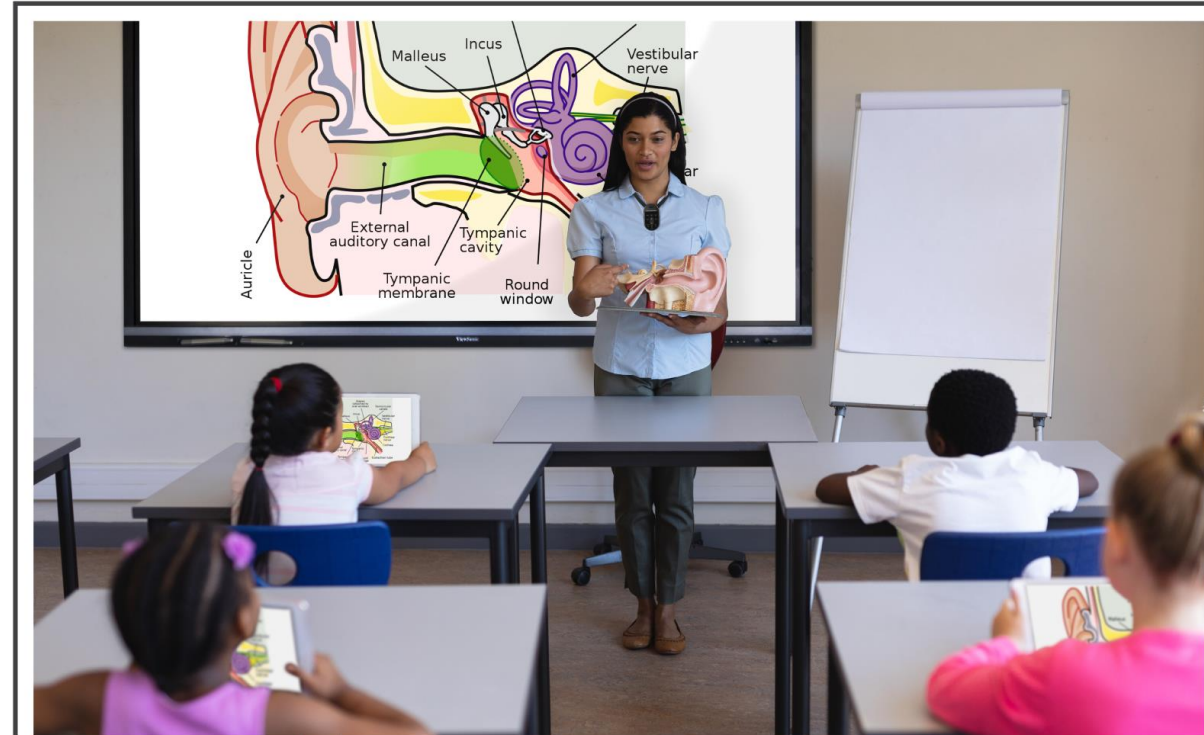
Deliver



Blended Learning



Deliver instruction
to students



4 Ways to Create!

With **VIEWpath**



Create video lessons



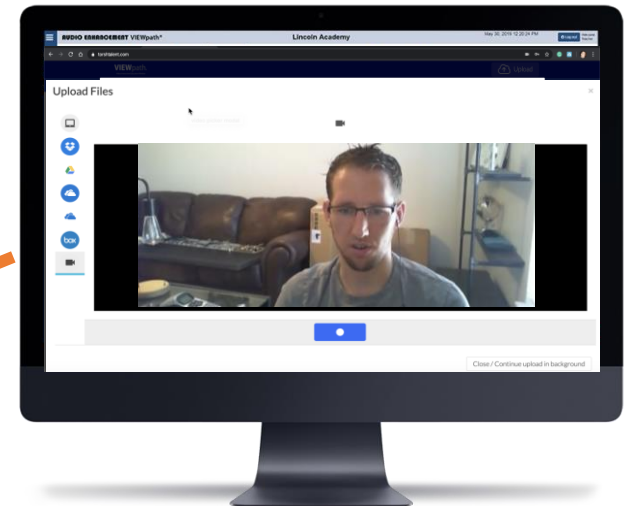
Portable Camera



Installed Camera

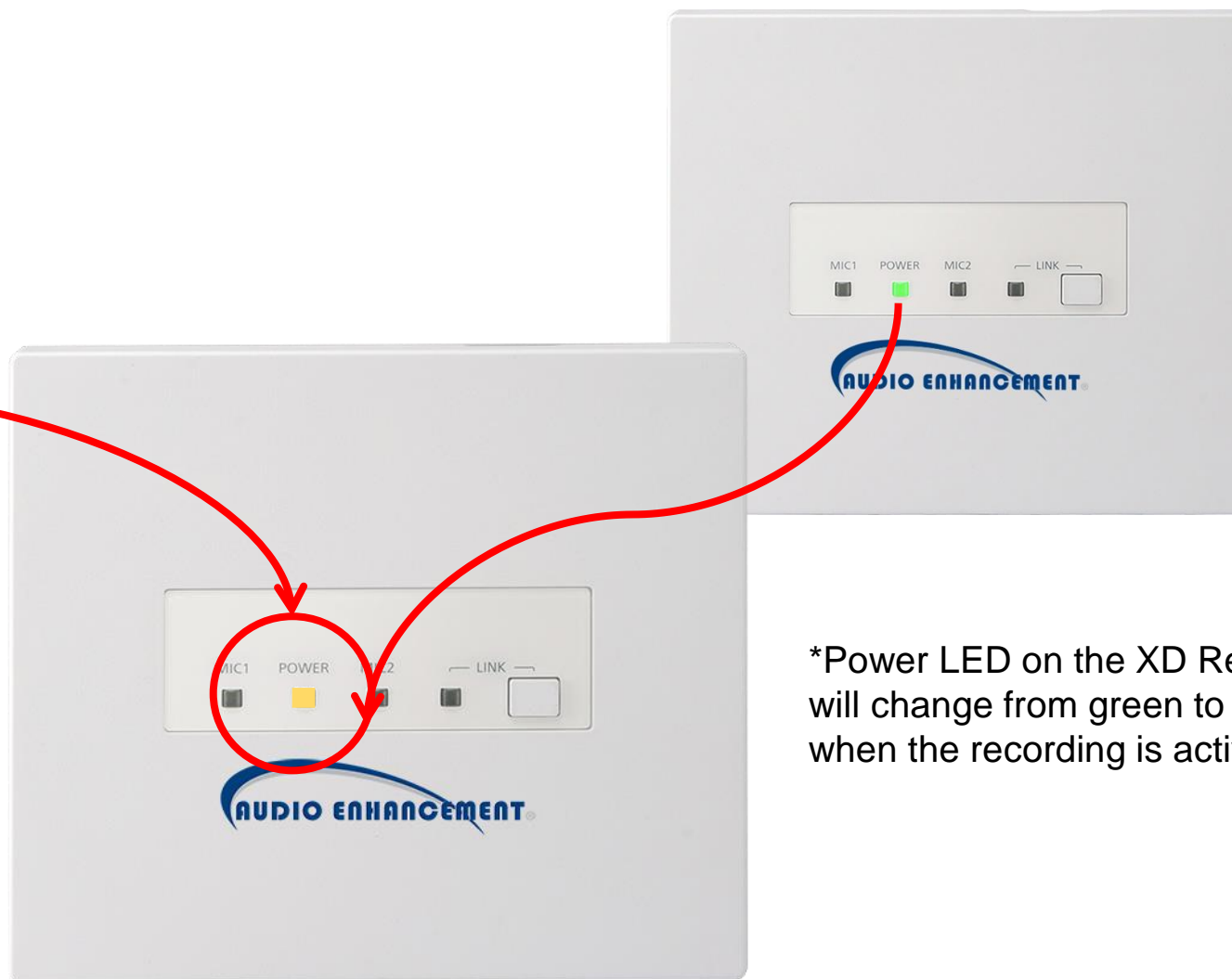


Mobile Device



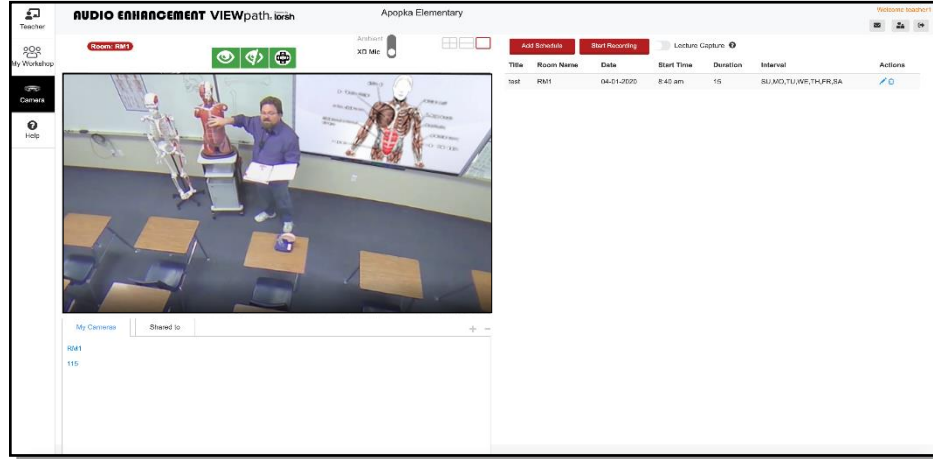
Web Camera

Initiate Recordings from Microphone



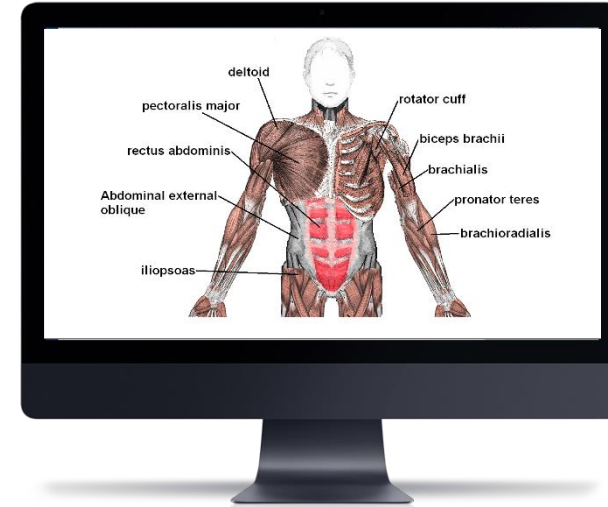
*Power LED on the XD Receiver will change from green to yellow when the recording is active.

Lecture Capture



Classroom Camera

Presenters Desktop

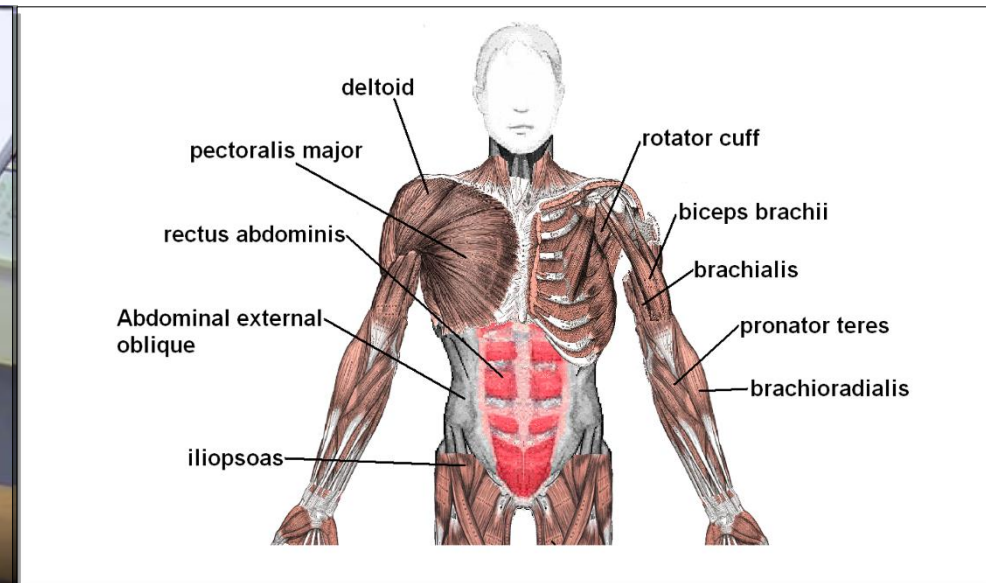


With VIEWpath



Create video lessons

One Side By Side



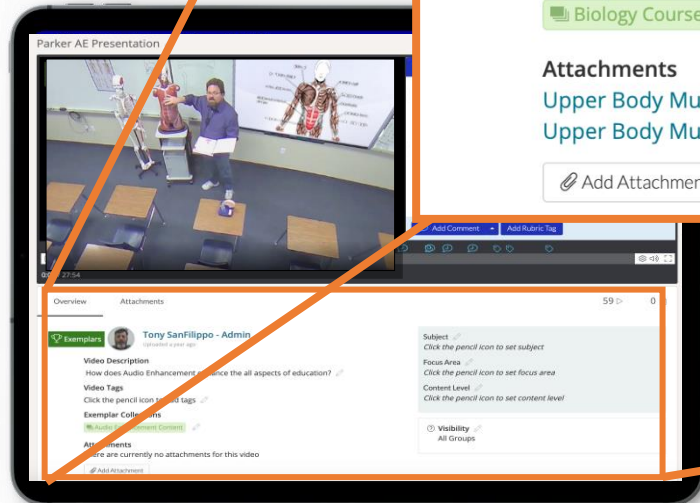


With **VIEW**path



Manage content

Searchable Meta Data



Organized Collections
In Library


Overview

Attachments

59 ▶

2 📄

🏆 Exemplars



Tony SanFilippo - Admin

Uploaded a year ago

Video Description

How do the chest muscles work? ✎

Video Tags

Science

Biology

10th-grade

Best-practice

Exemplar Collections

Biology Course Code 1102

Attachments

Upper Body Muscle Structure Teachers Guide.docx ✕

Upper Body Muscle Coloring Page.docx ✕

Add Attachment

Subject ✎

Science

Focus Area ✎

Biology

Content Level ✎

10th Grade

Visibility ✎

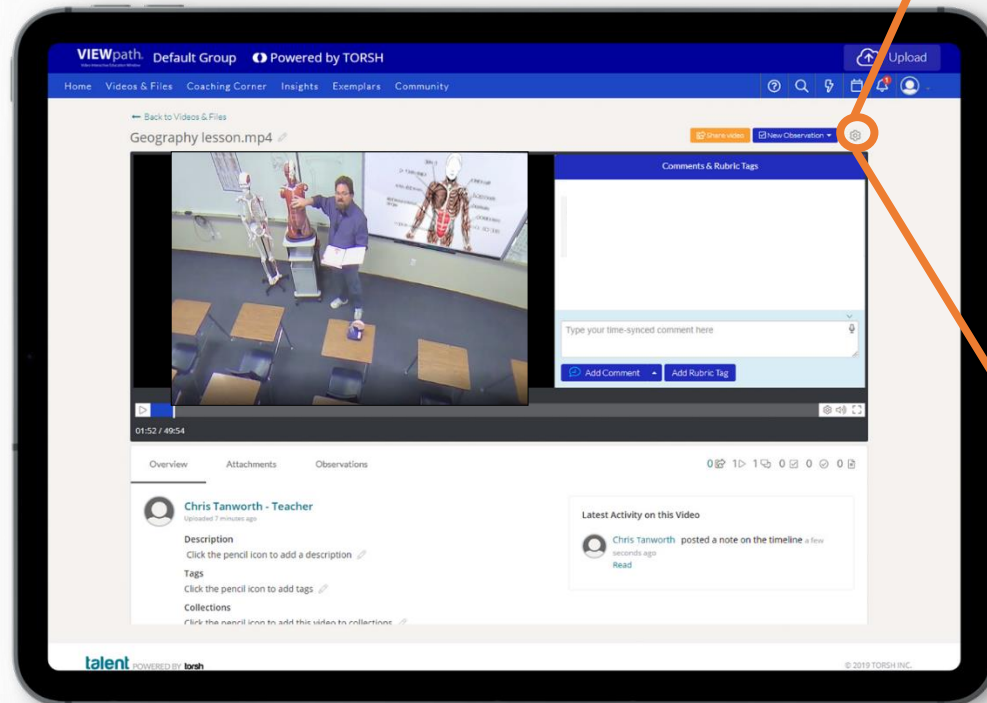
All Groups

Attached Supplementary
Materials

With VIEWpath

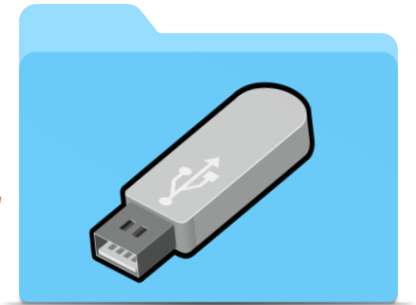


Deliver lessons to students



- Export Comments to CSV
- Duplicate
- Clip
- Merge With
- Download
- Download Original
- Manage Collections
- Quick Archive
- </> Get Embed Code
- Add to Exemplars
- Rotate
- Share
- Delete

AUDIO ENHANCEMENT®



VIEWpath[®] **LIVE**

Video Interactive Education Window

Blended Learning

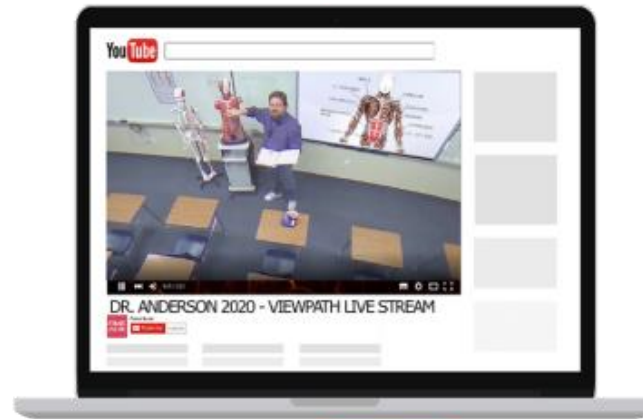
AUDIO ENHANCEMENT[®]



Deliver instruction
to students



Google Hangouts



You Tube
• LIVE

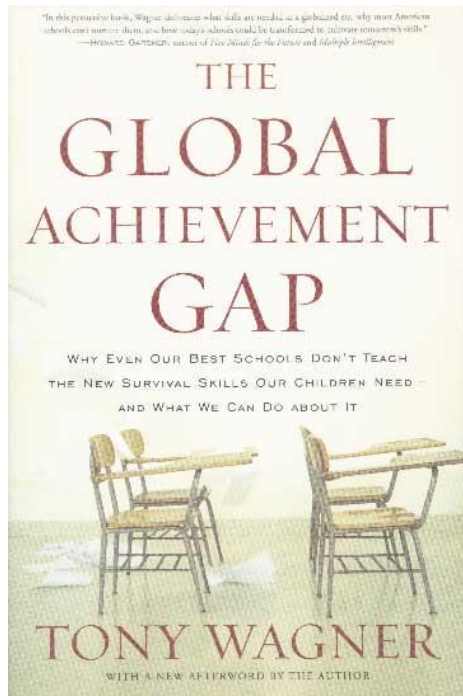


Microsoft Teams



zoom

Tony Wagner, Author of *The Global Achievement Gap*



“I truly believe that viewing and discussing videos of teaching and supervision is the single most effective strategy for improving instruction for all schools....”



HARVARD
UNIVERSITY



Center for Education Policy Research
HARVARD UNIVERSITY

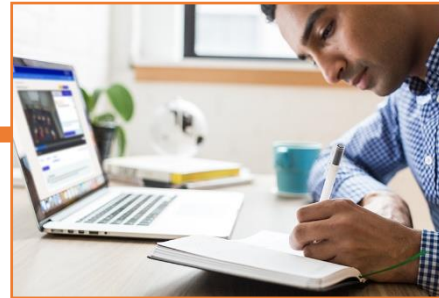
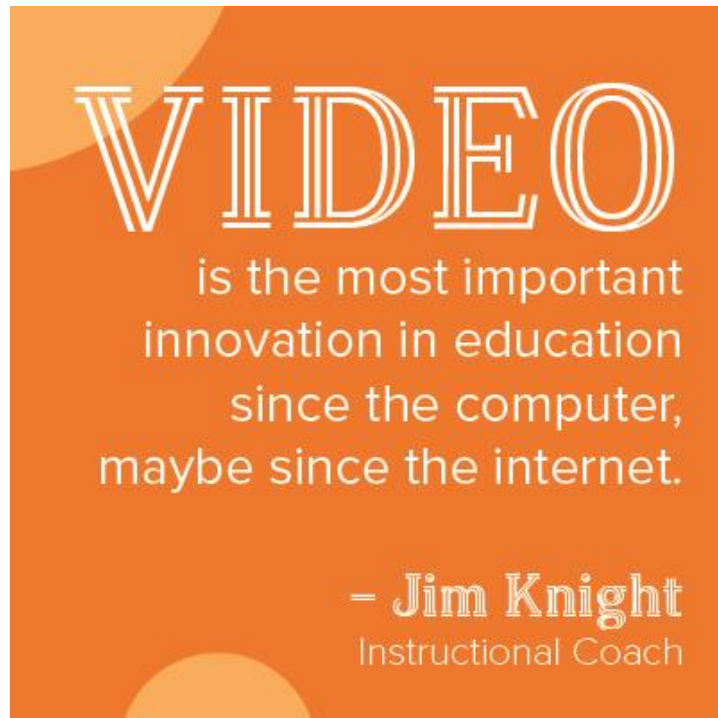
What did we learn from teachers?

13

Teachers recorded an average of 13 videos of their own lessons—more than the 5 videos they were asked to collect.

▶▶ | BEST FOOT FORWARD

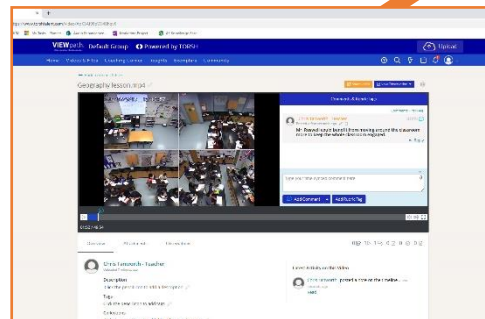
Professional Learning



Self Reflection



Professional Learning Communities



Virtual Coaching



Teacher Observations

VIEWpath AE VIEWpath Demo

[Home](#)
[Videos & Files](#)
[Coaching Corner](#)
[Insights](#)
[Exemplars](#)
[Community](#)

[Back to Home](#)

[Share video](#)
[New Observation](#)

Lecture Capture Clip.mp4

DemoClassroom12 05-18-2020 10:44:33 AM

Comments & Rubric Tags

Kevin Mitchell - Teacher
 Posted a minute ago

This is REALLY good Tony! Thank you for putting this together for us!

[Reply](#)

Kevin Mitchell - Teacher
 Danielson Framework for Teaching 2007
 Planning and Preparation

- 1a. Demonstrating Knowledge of Content and Pedagogy

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Kevin Mitchell - Teacher
 Uploaded 6 minutes ago

Video Description
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Kevin Mitchell posted a note on the timeline a few seconds ago



PBIS

Positive Behavioral
Interventions & Supports

OSEP TECHNICAL ASSISTANCE CENTER

Time Cost of a Discipline Referral (45 minutes per incident)

Administration Time – 30 minutes

Teacher Time – 15 minutes

Student Time – 45 Minutes



Clemens Middle School

Covington, Georgia

Year 1—1023 Referrals
Year 2—802 Referrals (PBIS)
Year 3—82 Referrals (Classroom Cameras)

What does a 720 referral reduction mean in instructional hours saved?

540 Hours

Protect Teachers



- Nearly 30% of teachers will be victims of a false accusation in their career¹
- One in seven male teachers will be falsely accused of inappropriate behavior involving a female student²

1. Bradley, Jon, et al. "False Accusations: A Growing Fear in the Classroom." *EdCan Network*, 6 Jan. 2011, www.edcan.ca/articles/false-accusations-a-growing-fear-in-the-classroom/.

2. Quinn, Ben. "Teachers to Be given Protection against Pupils' False Allegations." *The Guardian*, Guardian News and Media, 4 Apr. 2011, www.theguardian.com/education/2011/apr/04/teachers-protection-against-false-allegations.

Dual Stream Camera

Stream 1 **SECURITY**

360° Classroom View

Surveillance

Watermarked Video

24/7 Recording



Stream 2 **INSTRUCTION**

Multiple 4K Camera Views

Closable Lens

Teacher Controlled

Won't Impact Security Stream

Camera Views



Quad View



Double Panorama



Single View





Audio Enhancement Case Study: <https://youtu.be/zFGK7CnurzA>

- *Dr. David Schuler, 2018 National Superintendent of the Year*
- *Dr. Curtis Jones, 2019 National Superintendent of the Year*
- *Samantha Fuhrey, 2020 National Superintendent of the Year Finalist*
- *Dr. Morris Leis, Coffee County, GA Superintendent*

Questions?

Spencer Anderson • Spencer.Anderson@AudioEnhancement.com • 801-819-6990

Gary Evans • Gary.Evans@AudioEnhancement.com • 561-635-3076