

CASE STUDY

Groesbeck ISD: Enhancing Indoor Air Quality for Early Learners



BACKGROUND

Groesbeck Independent School District (GISD), located in Central Texas, serves approximately 1,600 students across five campuses. With a strong commitment to providing a top-tier education, the district emphasizes the importance of optimal learning environments, especially for its youngest students in Kindergarten, PreK, and daycare programs. Early education is crucial for developing social, emotional, and cognitive skills, including language development and self-regulation, which lay the foundation for future academic success. GISD recognized the significant role of maintaining healthy indoor air quality in supporting early learners. By ensuring a clean, safe indoor environment, the district aimed to foster an environment where young minds can flourish, which also helps increase and sustain enrollment in these programs.

THE CHALLENGE

In 2020, like many districts across the nation, GISD invested in air purifiers that required frequent filter replacements in 2020. However, when filters became scarce due to increased demand, the devices were no longer effective, leaving classrooms with subpar air quality. This issue was particularly concerning in the district's early childhood classrooms and daycare, where the youngest and most vulnerable learners, along with the children of district employees, spend their days.

POOR INDOOR AIR QUALITY (IAQ) POSED MULTIPLE RISKS, INCLUDING:

- Increased absenteeism due to illness
- Lowered academic performance
- Strained teacher and staff well-being
- Heightened transmission of respiratory viruses, including COVID-19 and influenza

THE SOLUTION

To address these challenges, GISD partnered with Protect|ED, a leading provider of Indoor Air Quality (IAQ) solutions for education spaces. Together, they implemented the medical-grade air disinfection technology NanoStrike in GISD's early childhood classrooms and daycare facilities.

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For the first time, Kindergarten attendance is at 98%, which is huge for October—usually the month where viruses spread.”

Shonuh Jackson

GISD Elementary Teacher

BENEFITS

Improved Attendance

The district noticed a significant decrease in absenteeism among early childhood students. Kindergarten attendance reached 98%, with GISD aiming to maintain an overall attendance goal of 96% in the next five years.

Enhanced Learning Environment

Teachers reported that classroom odors were no longer an issue, contributing to a more pleasant and focused learning space.

Staff and Volunteer Satisfaction

Employees using the district daycare expressed peace of mind, knowing their children were breathing cleaner air.

Employee Wellness

The air disinfection measures have been critical for GISD's volunteer grandparent program, where older adults work one-on-one with students. The improved air quality ensures these vulnerable volunteers feel safe.

Reduced Virus Transmission

GISD observed a reduction in illness transmission, contributing to a healthier school environment overall.

Broader Community Impact

By potentially reducing virus spread within schools, GISD helped curb outbreaks in the larger community as well.

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THE SOLUTION

NanoStrike technology, originally developed for healthcare settings such as neonatal ICUs, eliminates airborne viruses, bacteria, and mold spores. This innovative solution was selected for its proven efficacy in healthcare environments and adapted for use in schools to ensure the air quality met the highest standards. Protect|ED has deployed NanoStrike in schools across the United States, helping to protect the health of students and staff in a variety of educational environments.

KEY ADVANTAGES OF NANOSTRIKE TECHNOLOGY INCLUDE

- Elimination of airborne pathogens, including viruses and bacteria
- Reduction of allergens and mold
- Quiet operation that minimizes classroom disruption
- Low-maintenance, cost-effective operation with no need for frequent filter changes

CONCLUSION

The success of NanoStrike air disinfection technology in Groesbeck ISD's early childhood spaces has been clear: improved attendance, enhanced wellness for students and staff, and a healthier learning environment.

As one teacher noted, "For the first time, Kindergarten attendance is at 98%, which is huge for October—usually the month where viruses spread."

By creating safer environments for young students, GISD is not only protecting its current students but also setting the stage for long-term academic success. As a result, the district is working with Protect|ED to explore opportunities to expand NanoStrike technology across all campuses.

For other schools seeking to enhance air quality, GISD's experience offers a compelling case for adopting NanoStrike technology. With Protect|ED already deploying this solution in schools throughout the U.S., it's clear that protecting students' health through advanced IAQ solutions is an investment in their future—a future where learning continues uninterrupted, and schools remain safe havens for students, teachers, and staff alike.

The results speak for themselves: clean air in schools makes a difference.

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"January and October are usually the months where viruses spread, but I noticed we don't have as many students out. I may have one or two here and there, as opposed to half of the class."

Shonuh Jackson

GISD Elementary Teacher

