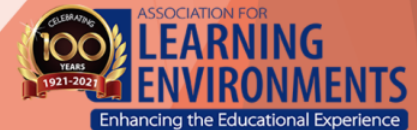


School Safety & Well-Being

Enhancing the Outdoor Environment



A4LE ASSOCIATION DAYS





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learning objectives

- ▶ understand how outdoor education can lower stress levels and decrease disruptive classroom behavior
- ▶ understand how outdoor play promotes exploration and discovery, and helps development of attention skills and social interactions
- ▶ understand how outdoor experience encourages caring and empathy for other life forms, translating to social behaviors
- ▶ understand how outdoor exposure enhances positive perceptions and academic achievement
- ▶ understand how outdoor environments impact learning on a day-to-day basis - Case Study - Douglas Creative Arts and Science Elementary School

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Questions related to specific products and services may be addressed at the conclusion of this presentation.

agenda

- ▶ school safety - high level view
- ▶ nature deficit disorder
- ▶ outdoor education
- ▶ outdoor play
- ▶ outdoor experience
- ▶ outdoor exposure
- ▶ case study - Douglas Creative Arts and Science Magnet Elementary School



Carolina Day Lower School, Asheville, NC

introduction



A4LE national task force for school safety

- ▶ educators, students and community
- ▶ school facilities
- ▶ preparedness and response
- ▶ policy and procedure



safety in schools

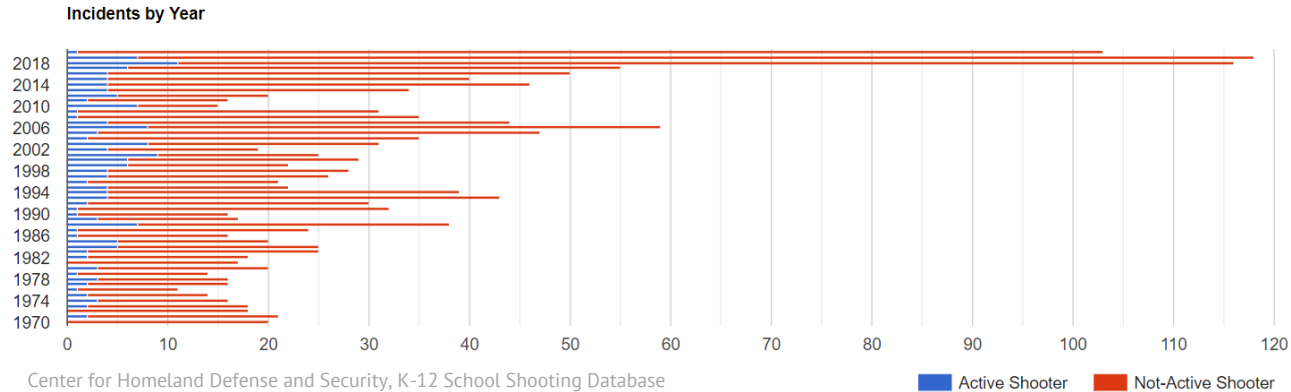
- ▶ student fights
- ▶ bullying (in person or cyber)
- ▶ self harm
- ▶ natural disasters
- ▶ violence from family strife
- ▶ active shooter
- ▶ global pandemic



Sandy Hook Elementary School, Newtown, CT, photo credit: Robert Benson

safety in schools

- ▶ student fights
- ▶ **bullying (in person or cyber)**
- ▶ self harm
- ▶ natural disasters
- ▶ violence from family strife
- ▶ active shooter
- ▶ global pandemic



Centers for Disease Control and Prevention, Violence Prevention



safety in schools

- ▶ streamline entrances
- ▶ create open design / clear sight lines
- ▶ provide wider corridors and stairs
- ▶ create neutral learning commons
- ▶ make schools community-centric



Sandy Hook Elementary School, Newtown, CT, photo credit: Robert Benson

safety in schools

- ▶ promote open communication
- ▶ check your climate
- ▶ show kindness
- ▶ carefully consider site design
- ▶ connect to the outdoors



Sandy Hook Elementary School, Newtown, CT, photo credit: Robert Benson

nature deficit disorder

“More than 50% of people now live in urban areas, and by 2050, this proportion will be 70%.”

-Bratman et al: Nature experience reduces rumination and subgenual prefrontal cortex activation



outdoor education



image credit: www.forestkindergartenassociation.org



image credit: www.forestkindergartenassociation.org

outdoor education

- ▶ improved mood, lower stress level
- ▶ increased academic achievements, attention
- ▶ promotes physical activity
- ▶ fosters community
- ▶ promotes student emotional control
- ▶ more open communication with teachers



Apex High School, Apex, NC

outdoor education

- ▶ risky play
- ▶ caring for other living things
- ▶ feelings of self-worth
- ▶ healthy social interactions
- ▶ involuntary learning



Carolina Day Lower School, Asheville, NC



Carolina Day Lower School, Asheville, NC



Apex High School, Apex, NC

outdoor education

“You don’t feel like you’re actually learning, you just feel like you’re on an adventure.”

“Incidents between students would occur inside the school building, but not one incident occurred [in the] wooded areas.”

- Chawla et al: Green schoolyards as havens from stress and resources for resilience in childhood and adolescence



Abbotts Creek Elementary School, Raleigh, NC

outdoor education

- ▶ COVID-19
- ▶ resurgence of need for outdoor environments
- ▶ rethink existing spaces
- ▶ rethink delivery of curriculum



Carolina Day Lower School, Asheville, NC

outdoor education

95% of students surveyed agree outdoor learning makes lessons more enjoyable

90% of students said they felt happier and healthier

72% of students said they got along better with others

93% of schools said outdoor learning improved students' social skills



outdoor education

92% of schools said it improved students' health and well being, and engaged them with learning

72% of schools agree that outdoor learning had a positive impact on teachers' health and well-being

85% of schools saw a positive impact on behavior



outdoor play

- ▶ relieve pent up energy
- ▶ alleviate hyperactivity
- ▶ “their” time
- ▶ freedom
- ▶ importance
- ▶ decision making
- ▶ ownership



Innovative High School, rendering, Flat Rock, NC

outdoor play

- ▶ fixed equipment / paved areas vs. loose parts / variations in landscape
- ▶ gender-neutral play
- ▶ varied play
- ▶ levels of play
- ▶ self-paced challenges



Joyner Park Community Center, Wake Forest, NC

outdoor play

- ▶ self-led exploration
- ▶ manipulation
- ▶ discovery and imagination
- ▶ negotiating social interactions



Edneyville Elementary School, Hendersonville, NC



Bryan Road Elementary School, Raleigh, NC

outdoor play

- ▶ positive mood
- ▶ reduced stress and anger
- ▶ lower rates of depression
- ▶ restored “mental fatigue”



Edneyville Elementary School, Hendersonville, NC

outdoor play

“Boredom is a factor that can lead to increased aggression on school grounds, it may be that the decrease in aggression is related to more diverse and interesting play spaces.”

- Evans: *In search of peaceful playgrounds*



“Green schoolyards...” Chawla et al



Halifax Community Center, Raleigh, NC

outdoor play

Bullying is real, but teachers agree recess can help

67%

of teachers have observed bullying among students



64%

of teachers agree that recess reduces bullying



Teachers say recess is essential to student development, behavior and social interactions

81%

of teachers said that kids' behavior changes positively after recess

97%

of teachers agree that recess improves the behavior of students who tend to behave badly

95%

of teachers said recess improves their students' social interactions

100%

of teachers agree – recess is essential for young students' mental and physical development

outdoor experience

- ▶ walking, sitting reading
- ▶ reduced rumination
- ▶ behavioral and cognitive benefits
- ▶ promotes caring and empathy
- ▶ social interactions



Apex High School, Apex, NC

outdoor experience

“The more stressful events that children experienced, the more strongly nature acted as a buffer.”

“Young people classified with poor behavior experienced the greatest benefits [of being outside] in terms of greater energy, happiness and less stress.”

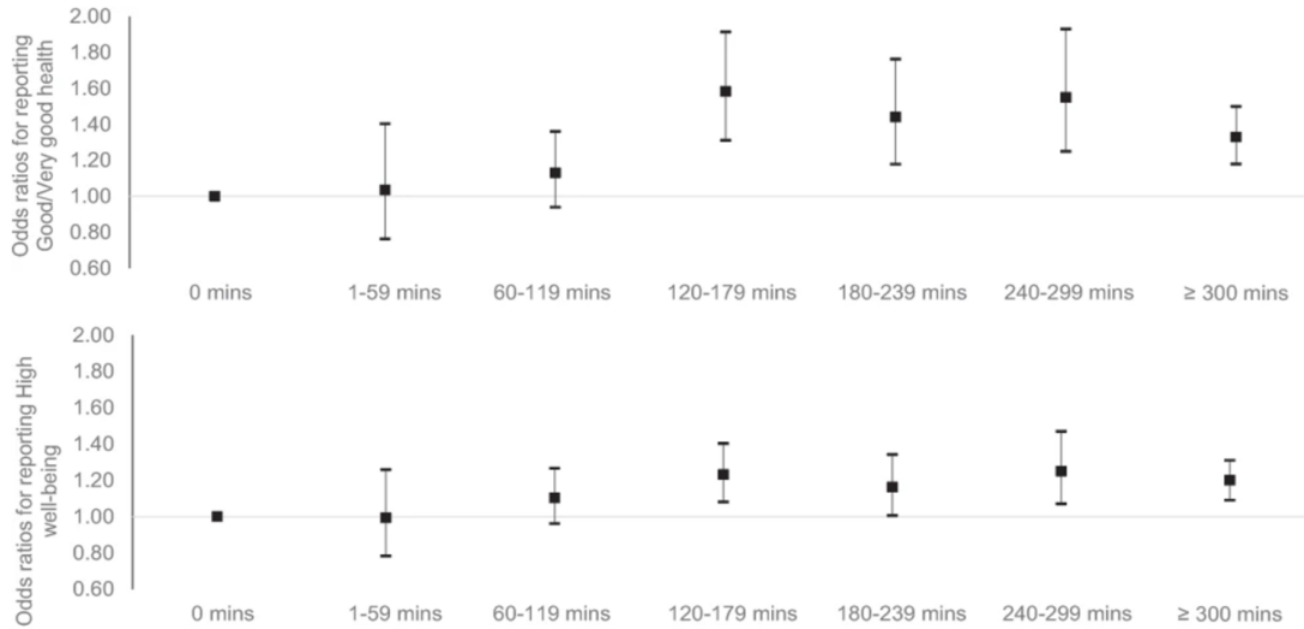
- Chawla: *Benefits of Nature Contact for Children*



Carolina Day Lower School, Asheville, NC

outdoor experience

Spending at least 120 minutes a week in nature is associated with good health and wellbeing



Time spent visiting in Nature in last 7 days

outdoor exposure

- ▶ visual
- ▶ auditory
- ▶ positive perceptions of place
- ▶ academic achievement



Edneyville Elementary School, Hendersonville, NC

outdoor exposure

- ▶ behavioral and emotional benefits
- ▶ views to outdoors (particularly during less focused activities)
- ▶ higher engagement and performance
- ▶ less behavioral incidents
- ▶ reduced violence



Bryan Road Elementary School, Raleigh, NC



Innovative High School, Flat Rock, NC

outdoor exposure

“Even six limitedly visible plants in the classroom had an immediately significant and positive influence on students’ perceptions of preference, comfort and friendliness.”

- Han: *Influence of Limitedly Visible Leafy Indoor Plants on the Psychology, Behavior, and Health of Students at a Junior High School in Taiwan*



outdoor exposure

“It was so successful in driving awareness and reducing bullying amongst these children that more schools ... have approached us to conduct the experiment at their locations.”

- Vinod Jayan, managing director of IKEA UAE, Qatar, Egypt and Oman

this plant
was bullied

this plant was
complimented



IKEA Bully A Plant #SayNoToBullying

outdoor exposure



involve students

- ▶ ownership
- ▶ responsibility
- ▶ negotiation
- ▶ compromise
- ▶ sharing
- ▶ caring
- ▶ process is as important as result



Apex High School, Apex, NC



Carolina Day Lower School, Asheville, NC

involve students

“Through interactions with their environment, children were learning about themselves as much as they were learning about their world.”

- Chawla: *Benefits of Nature Contact for Children*



Conn Elementary School, Raleigh, NC

case study - Douglas Elementary School



“If you don’t go all in, it’s not going to work.”

- Derek Burns, Principal



**THE
POSITIVITY
PROJECT**



Magnet Schools of America Merit Award
School of Distinction



WAKE COUNTY
PUBLIC SCHOOL SYSTEM



case study - Douglas Elementary School

- North Hills, Raleigh, NC
- revitalized area
- 728 students
- 37% free and reduced lunch
- 27% Hispanic
- 13% African American
- 14% IEPs
- 34% magnet students
- 100 ESL students
- #1 magnet school in America, 2016





case study - Douglas Elementary School

creating culture



Douglas Elementary @DouglasESDragon · May 19, 2018
Our Douglas Run Club participants for the Catching Fireflies 5K...#proudfourkids @PTADouglasES @WCPSS @wcpssmagnets



Douglas PTA @PTADouglasES · Sep 18, 2019
Mr D and the Douglas Dragon are bringing the #Dragonfire moves!! @DDprincipal @DouglasESDragon



Derek Burns @DDprincipal · Oct 5, 2018
#bowtiewednesday is so two days ago...Fly Kicks Friday in full effect! #whatarethose #sneakerheads @WCPSS @wcpssmagnets @RootElem @PTADouglasES @DouglasESDragon The Grind Includes Fly sneakers @PhilEchols



case study - Douglas Elementary School

student ownership



case study - Douglas Elementary School

student ownership



case study - Douglas Elementary School

hands on learning



case study - Douglas Elementary School

hands on learning



case study - Douglas Elementary School

hands on learning



case study - Douglas Elementary School

musical playground



case study - Douglas Elementary School

structured play vs unstructured play



case study - Douglas Elementary School

structured play vs unstructured play



case study - Douglas Elementary School

community garden



case study - Douglas Elementary School

butterfly garden



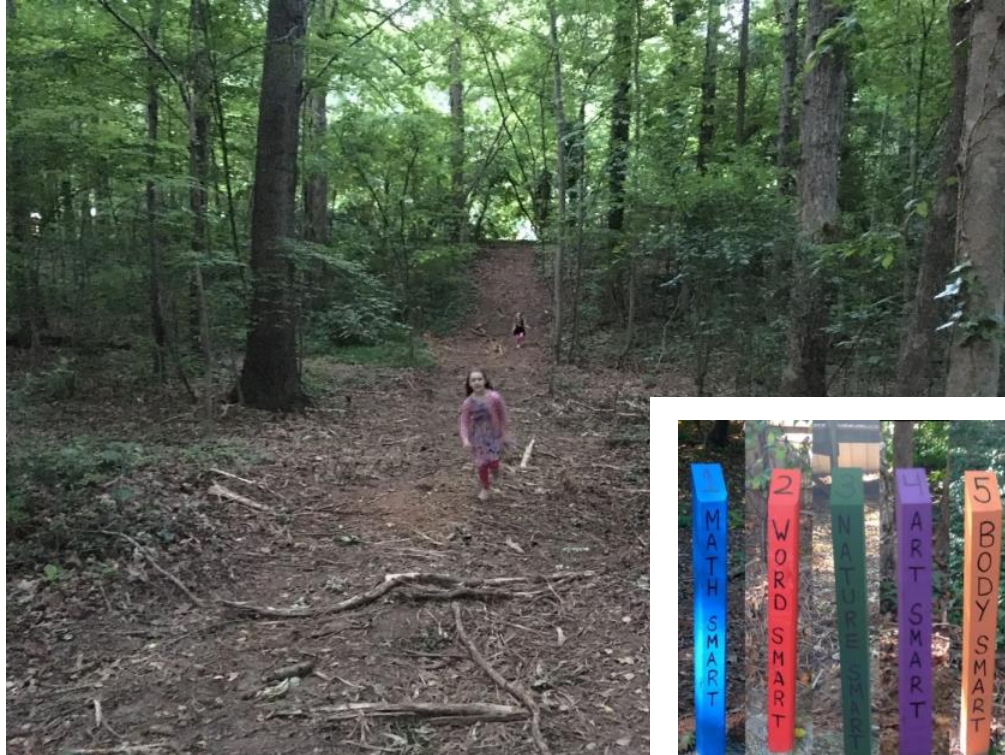
case study - Douglas Elementary School

peace garden



case study - Douglas Elementary School

nature trail



case study - Douglas Elementary School

amphitheater and pavilion



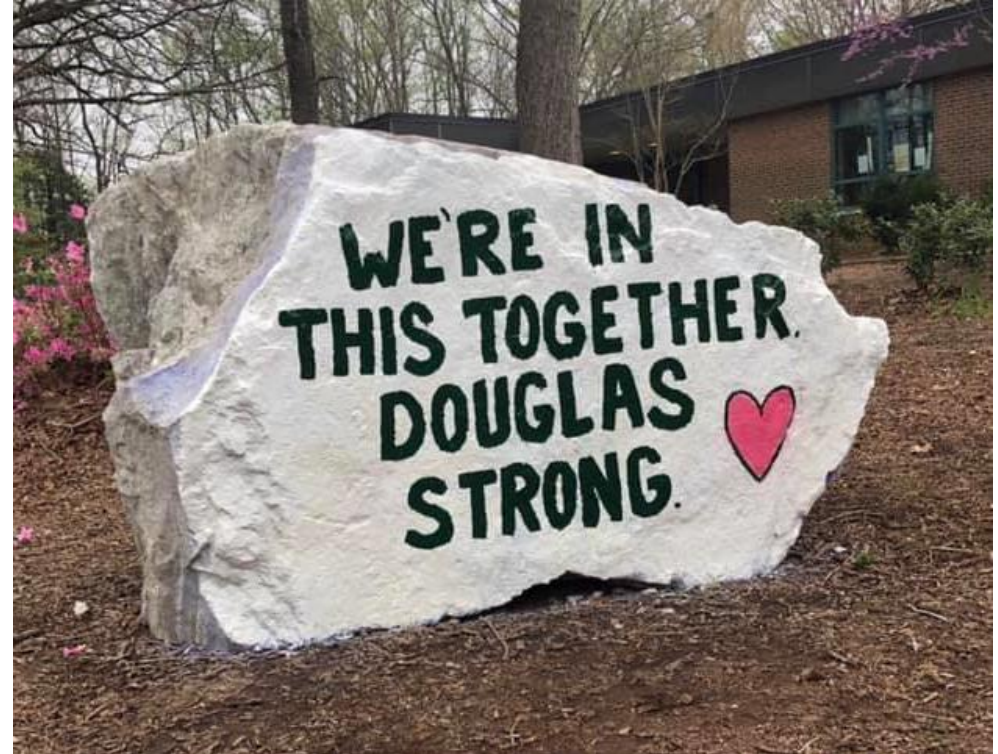
case study - Douglas Elementary School

adapting for COVID-19



case study - Douglas Elementary School

spirit rock



metrics - Douglas Elementary School

95% of students surveyed agree outdoor learning makes lessons more enjoyable

90% of students said they felt happier and healthier

72% of students said they got along better with others

93% of schools said outdoor learning improved students' social skills

“Being outside makes it easier for me to focus.” -Crawford, 4th

“Being outside helps me relate more with nature.” -Celia, 5th

“Being outside helps me learn.”
–anonymous (student), 4th

98% of 4th and 5th grade students interviewed agreed they would like more time outside during classes

metrics - Douglas Elementary School

92% of schools said it improved students' health and well being, and engaged them with learning

72% of schools agree that outdoor learning had a positive impact on teachers' health and well-being

85% of schools saw a positive impact on behavior

“The teachers there seemed to honestly care about how I did in school and my happiness at home. They were very supportive. We had an extra science class that was very hands on and added a lot to the whole experience. **There were never any fights or problems and I never saw much bullying.**”
-anonymous (graduated student)

contact

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WAKE COUNTY
PUBLIC SCHOOL SYSTEM

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