



UNSEATED:

how chairing young people is a barrier to student achievement.



About

Brightbeam lifts up the important stories in education that too few are telling. With this report, our team committed to raising an issue—specifically, the widespread practice of chairing students in public schools—that is too important to receive so little attention.

Tens of millions of our nation's youth are chaired as a normal part of their educational lives, but there is nothing normal about the practice. Throughout the developing world there have been cultural practices, such as squatting, that are superior to what we do in the United States, but we have yet to learn from their success.

With “**Unseated: How Chairing Young People Is a Barrier to Student Achievement,**” we hope to gain the attention of parents, communities, and policymakers so that our children can finally be free.






A Different Classroom Evaluation

A skilled evaluator visiting any American public school classroom might sit at a child's desk surveying the room, taking in all of the information about how the teacher has arranged it for student learning, and determine "what in this room works" and "what doesn't?" Is the room arrangement aligned with the school's instructional goals and activities? Are high traffic areas free of clutter? Are the most used materials easily accessible? Are there clear resource prompts neatly displayed on each wall so that the room is a continuous learning environment with information wherever the students' eyes might wander?

A growing body of research details the surprising ways in which classroom organization impacts student learning. Of course, school districts have long maintained systems of evaluating a teacher's room arrangement that provide feedback and guidelines for how a room should look. Yet, in many cases, one of the most deceptively simple and ultimately important barriers to student achievement is hidden just below the evaluator's rear end. That barrier is one of the most costly and dangerously overlooked problems in public education: chairs in classrooms. Or, better stated, sedentary education.

A young boy with dark hair, wearing a light blue short-sleeved shirt and dark pants, is sitting on a metal school chair. He is resting his chin on his right hand, looking off to the side with a thoughtful expression. The background is a blurred indoor setting. The entire image is overlaid with a semi-transparent blue and green gradient.

Sedentary Learning Is Harming Our Children

While researchers have reconsidered almost every aspect of public education, from pedagogy to school governance, to the architectural design of school buildings, we have had a long-living achievement killer literally sitting in classrooms since public schooling began. Even as times changed the way schools considered and reconsidered school uniforms, bell schedules, new math vs. old math, phonics versus balanced literacy and so on, it remained true that multiple generations of students have sat in the same model of chair manufactured by the same furniture supplier.

The original classroom chairs were hard, wooden and stiff. Those were replaced in the 1990s with the colorful “super stacker” model 114. And, today, there is a cottage industry of “ergonomic” chairs that are marketed with the promise of being part of a therapeutic classroom.

This longstanding addiction to seated children, and to the chairs we seat them in, has gone curiously unchallenged even as there has never been any research to support the connection between chairing students and their student achievement. In fact, there is plenty of evidence that chairing young people is responsible for negative effects such as declining physical health and a host of disruptions to teaching and learning, including fidgeting, lethargy and mental wandering.

Education “reformers” have spent millions of dollars to rethink other foundational issues in education only to find years later through emerging research that their big bets are not directly related to student achievement.

This has been the case with the well-funded focus on teacher evaluations, test-based accountability, school improvement grants, school choice programs, and many other reforms that have recently been shown to have marginal impacts on student learning. Media reports about the failure of these marquee reforms that were once the darlings of education philanthropy have overlooked the far more foundational problem with chairs in classrooms, perhaps because the issue will not generate clicks and internet traffic or generate controversy. That is a shameful oversight, given the number of downstream issues that are caused by chairing young people.



It's the Sitting, Stupid

While disputes in education about teachers, teaching and public school governance will always warrant research and advocacy, one of the greatest dangers today is also one of the lesser-known education issues facing both children and adults: sitting.

According to 2019 study by the American Association of Pediatric Cardiovascular Surgeons (AAPCS) 84% of our nation's public school children sit for longer periods of time than recommended for good health. The longer children sit, the more likely they are to experience serious health consequences over time. In fact, recent medical studies show that students who sit for longer than 60 minutes at a time without getting up and walking can shorten their lives due to increased risk of serious diseases such as heart disease, diabetes, and more.

The problems go beyond health too. According to surveys of teachers by the National Education Association, 68% of teachers report their students disrupt classrooms more often and have more mental health needs as a result of extended periods of sitting.

Of course, there is ample evidence that extended sitting can harm adult health. Numerous epidemiological studies have found links between long hours of inactivity and an increased risk of diabetes, obesity, heart disease, liver disease, metabolic syndrome, and other conditions, including premature death.

There are growing concerns about the time people spend on inactive behavior, including screen time, entertainment, and sitting at work. The number of large research studies (published studies) and reviews in this area of research has grown rapidly. A summary of the highest level of evidence is needed, which provides a broader quantitative synthesis of the different types of interventions.



The Effects of Chairing

The effects of excessive sedentary behavior, specifically chairing of children in classrooms, are becoming increasingly more pronounced, with emerging research showing that 3 hours of continuous sitting leads to a 33% decrease in vascular function in girls and 58% decrease in boys. Children in schools that are heavily oriented toward unstructured outdoor activities that require plenty of physical movement are 80% more likely to graduate high school, enter and complete college with a degree, and report having healthy family relationships as adults. By contrast, students who attend schools with a higher than average number of chairs in their schools are more likely to lose interest in school, drop out, turn to drugs, and become incarcerated. Ironically, for those unfortunate enough to end up in prisons, one of the few jobs they may get is manufacturing chairs for public schools.

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Additional effects to consider:

Physical activity can reduce the symptoms of depression and anxiety

Depression and anxiety are on the rise in children and adolescents, so it is important to find ways to address them. Experts say exercise can reduce depression and anxiety and help reduce symptoms in children. Physical activity releases endorphins and helps children think about what is bothering them. Exercise provides a useful coping mechanism. As students become less anxious and depressed, they are more likely to interact with others and adopt healthy behaviors, which further alleviates their depression. Instead of helping with these mental problems, an all-day chairing session can only exacerbate the problem by limiting the necessary physical activity.

Movement creates new brain cells, essential for learning

Many studies have concluded that exercise has several benefits for the brain, all of which are important for students who try to learn different classes every day. When children move and not just sit, they can benefit from increased blood flow to the brain. And according to a study by the Department of Psychology at the University of Illinois, exercise can change the shape and function of the brain in children.

"Improved aerobic fitness in children is associated with greater dorsal striatal volume and is associated with improved cognitive control," the authors concluded. "As children become obese, unhealthy and inappropriate, understanding the neurocognitive benefits of an active lifestyle in adolescence has important implications for public health and education."

Sitting kids are not focused kids

Many parents are told that their children are likely to be confused and distracted in the classroom. Some people are diagnosed with ADHD because of these problems, but many are tired of sitting. Experts say that shaking is often a symptom in children who need more opportunities to move during the day. When children feel frustrated that they cannot get up and move, they are more likely to be confused and lose their classroom attention, which will ultimately affect their academic success.

What the U.S. Can Learn From Other Cultures

Chairing is the uncontested norm in our country, but while the practice is a widespread phenomenon in American schools, much of the rest of the world has found more humane ways to educate the whole child (including the child's body). If one were to poll those countries and ask them what cultural practice is most related to improving the attention span of students, they would probably point to one activity above all others: squats.

Squatting is a major part of our evolutionary history. A big swath of the planet's populace does it on a daily basis for relaxation, prayer, cooking, proportioning meals, and to exercise their bowels. On that last one, squat-fashion bathrooms are the norm in some cultures, and pit latrines in many rural regions require squatting. As they learn how to walk, babies around the world squat—and arise from a squat—with grace and ease.

In nations wherein hospitals aren't widespread, squatting is an essential part of giving birth. And, while many American traditionalists may look down their noses with scorn at practices that seem to lack modern research to support, squatting has been studied and proven to have health benefits. In this case, our chairing practices are primitive in comparison to indigenous cultures.

Here in the West, we spend a lot of time with our heads in the Cloud, and our eyes glued to phones. We sit in cars, buses, and living room chairs, never knowing that squatting could greatly reduce our need for chiropractic appointments, yoga classes, and massage therapy to correct our poor posture. Childhood is when we can teach children to become limber and grounded long before they form the bad habits of sitting.



So why hasn't America learned its lesson about chairing students? One uncomfortable answer is found in the racist origins of "seat time." Early American educators saw as their goal the assimilation of immigrant populations into an orderly society. It is a little-known fact that there was a period in the late 1800s where many schools were outfitted with rows of communal wooden standing desks. When it became clear that some ethnicities were taller than others, there was a push to chair students so they could all be viewed as the same—thus, lowering the esteem of some, while raising it for others.



There was also a dominant ideology that chairing students tamed them, especially those who were not considered to come from families with puritan values. A popular slogan used among educational leaders was "chair the boy, raise him up." Once chairing became synonymous with civilizing and Americanizing, supplying schools with chairs, a tool of oppression, grew into Big Business. According to Education Week, providing schools with furniture is now a \$2 billion dollar industry that requires major furniture manufacturers to compete for district contracts.

Recommendations

At brightbeam, we believe in the power of storytelling to spur social change on behalf of children. This report is our way to introduce a hidden issue that has an enormous impact on the academic outcomes (and lives) of students. We expect “Unseated” to be more than a report, but, instead, a movement to demand schools stop chairing children and impairing their growth.

We do not have all the answers about how the movement should form, but we offer three recommendations that we think must be included in the effort to unseat children.

Ask legislators to curb the chair lobby

Currently, school furniture manufacturers spend \$115 million annually lobbying state and local governments to increase chairing and seat-time dependence. Most parents are unaware that there is a national entity working behind the scenes to keep children in chairs.

Pressure schools to unseat children

According to Dr. D. Breithecker from the Federal Institute for Posture and Exercise Development, the school day should be divided into 50% sitting, 30% standing, and 20% movement that fosters “learning on the move.”

Raise public awareness

There isn’t broad support for unseating children because the public doesn’t know that there is an issue with chairs in the classroom. But, given all of the health problems associated with sedentary learning, chairing must be seen as a cruel practice. Activists who are concerned about the hidden issues that prevent high levels of student achievement must take this issue on and use their channels to educate the public.

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