

# The Future of Education and Interactive Learning: A Case Study at Eastern Suffolk BOCES



ACTIVE FLOOR  
Jump 'n' Learn



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## INTRODUCTION:

Join the future of education! EdTech is constantly transforming to enhance educational environments and meet the needs of student and teacher. By implementing EdTech into educational environments, educators will engage students in new and motivating ways and eliminate barriers and encourage inclusivity. The EdTech evolution will enhance innovation, teaching methods, assistive technology, and interactive learning. This case study highlights interactive learning in special needs education and empower all in actively shaping the future of education.

## THE RISE OF INTERACTIVE LEARNING.

Interactive learning has proven to promote student engagement and active participation through creativity, movement, teamwork, collaboration, and communication. With interactive learning, educators can choose to leverage various technological tools and platforms to create immersive experiences that provide children with equal access to auditory, visual, and kinesthetic learning. Most educators of children with Special needs understand that one-size-fits-all instructional approaches are impractical and ineffective in their unique learning environments. So now we see that, more and more educators have followed the EdTech evolution and are experiencing how learning can transform from a passive process into an exciting interactive adventure by implementing gamification, virtual reality, simulations, collaborative online platforms, and more in the different educational environments.

In conclusion, the integration of EdTech goes beyond enhancing interactive learning – it represents a revolutionary approach to education that acknowledges and embraces the diverse learning needs of all students. By leveraging technology in educational settings, educators can create personalized, engaging, and inclusive learning experiences that empower students to become active participants in their own education journey. As the EdTech evolution continues, it promises to reshape education and unlock the full potential of every student, ensuring a brighter and more equitable future for all.

## COMBINE THE BODY AND THE MIND.

When children engage in traditional free play at school, they experience many benefits. During playtime, they use their senses and interact with the environment, which helps them develop in different areas. One way to approach how implementing EdTech can have a positively impact children's development is from the perspective of Embodied Learning (EL). EL combines the body and mind in the learning process and has been proven to enhance children's development in three areas:

- the physical development,
- the cognitive development,
- and the social development.

Focusing on EL in the learning process has a positive effect on the overall educational performance. Not only does it improve the memory and the transfer of learning to other areas, but it also fosters a positive attitude towards learning. Physical actions during embodied learning also enhance immersion and the understanding of the content being learned.

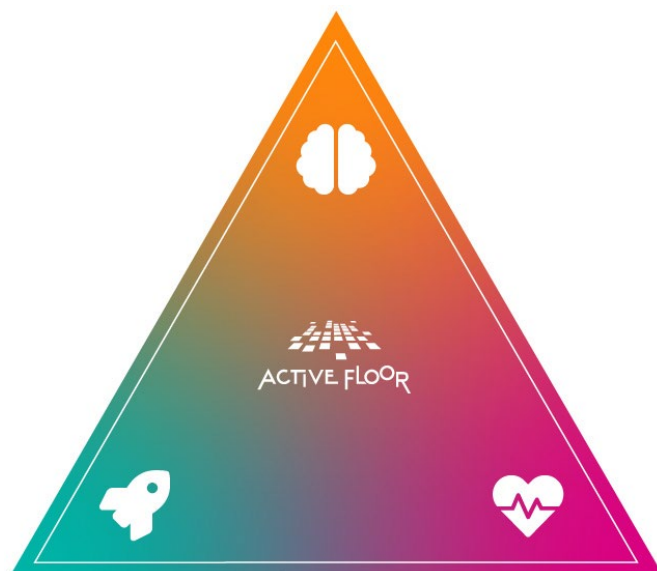
Many interactive playgrounds in the EL approach have been designed to develop at least one of the three development areas of EL, but ActiveFloor is designed to effectively address all three! ActiveFloor significantly improves children's overall development, with a particular emphasis on the cognitive and social areas. Advanced interactive playgrounds play an increasingly important role in enhancing education environments in the future.

Therefore, the use of technologically-based EL tools like the ActiveFloor has the potential to greatly improve child development.

## JOIN THE FUTURE OF EDUCATION WITH THE ACTIVEFLOOR FAMILY LIKE EASTERN SUFFOLK BOCES.

ActiveFloor is a family-owned EdTech company headquartered in Copenhagen, Denmark, that was founded in 2015 with the belief that learning should be fun and with an ongoing mission to provide children of all ages with the possibility to learn and develop both intellectually, physically, and socially in a way that is most natural for them – by using their entire body. The award-winning interactive learning solutions created by ActiveFloor have already been embraced all over the world by schools, daycare programs, museums, children's hospitals and more.

Eastern Suffolk BOCES, an inclusive educational cooperative of 51 Long Island, New York school districts, has chosen ActiveFloor for their instructional programs. Brookhaven Learning Center's addition of an ActiveFloor for their students has proven to be a huge success. The interactive technology has connected learning with the entire body, with fun and play for all the students, both in lessons and social activities. BLC Principal, Nicole Drinkwater, and her team discovered ActiveFloor and advocated to acquire it for the students. ESBoces Special Education Department subsequently added ActiveFloor (Model: PRO2) interactive learning solutions to their other departments at Westhampton Beach Learning Center, Samoset Middle School, Sayville Elementary School, Premm Learning Center, and Tecumseh Elementary School.



"The mission and goal of ActiveFloor is aligned with everything that we believe in and do at Eastern Suffolk BOCES, as ActiveFloor believe that utilizing the entire body represents the most natural way for students to learn" - Gina Reilly, ESBoces Director of Special Education.

## UNLOCKING THE POTENTIAL OF ASSISTIVE TECHNOLOGY.

Assistive technology encompasses a wide range of tools, software and devices designed to enhance the educational experience and level the playing field for all learners. From screen readers and speech recognition software to adaptive learning platforms and specialized hardware, assistive technology empowers students with disabilities or learning differences by addressing their unique needs, enabling them to access educational content, participate in classroom activities, and demonstrate their knowledge effectively. By removing barriers and providing personalized support, assistive technology reinforces inclusivity in educational environments.

ActiveFloor is an interactive universe that provides sensory integration and learning games for students of all ages and abilities. Students navigate various activities and education games by using their feet and in some cases their wheelchairs. Incorporating movement and play into learning helps memory, collaboration, focus, motor development and social skills while creating an exciting educational environment.

An ActiveFloor solution in practice consists of a ceiling mounted box, containing a projector and a tracking camera, that projects the games and content on a white vinyl floor (or wall), with the tracking camera allowing the games being assisted and played by the feet, hands, balls, robots, or wheelchairs.



Assembly an online platform (MyFloor) is connected to each floor. In MyFloor you will find a game library of more than 10,000 different games. The games, with content for math, language arts, science and more provide teachers with opportunities to integrate movement and fun into all subjects and lessons. Also, every teacher has the option to create unique learning games to

add to the library and the floor, that allows each teacher to create unique content in the level and ability for all students.



Regardless of age or abilities, ActiveFloor offers content and games for everyone. Even students with multiple disabilities can sit and play in the leaves, watch the fish swim around the floor and splash along with them, or watch bubbles move around the floor.



"What we love most about ActiveFloor, is the ability to customize the games to meet all the needs of our students. Differentiation is key for our population of students." – Colleen Kennedy-Dietrich, Special Education Teacher, Eastern Suffolk BOCES, Brookhaven Learning Center

### BEST PRACTICE OF CUSTOMIZING ADAPTIVE PLAY.

The combination of interactive learning and assistive technology can be very powerful! By creating interactive learning environments that are adaptive to the abilities of the user, the learning experience will become very inclusive and dynamic. For example, in ActiveFloor interactive educational games can be designed with built-in accessibility features, allowing students with visual or hearing impairments to participate in learning activities alongside their peers.

Each class at Brookhaven Learning Center has scheduled times throughout the week to use the ActiveFloor and extra times are available for all students because of all the floor offers



academically and socially. Students are given time to dance and play sports like soccer and air hockey with each other, which have created and even more inclusive environment.

At BLC, students get to utilize the ActiveFloor for a minimum of 30 minutes a week. Each teacher receives a half hour time slot and can use their time as they see fit. Each teacher has a customized playlist where they can easily access games that they have created or found in the general library. Additionally, all the teachers have access to specially customized educational playlists. These playlists include games and activities that pertain to specific seasons, holidays and/or events. Teachers can also access games that reinforce building-wide curriculum. After teaching a lesson in the classroom, the students can complete a follow up activity on the floor that reinforces the content learned in a fun and engaging manner!



“This spring we added a Spring matching game, a Spring Social spinner, as well as a Sock Sorting game to honor World Down Syndrome Day. Our memory matching games can be modified to different levels based on the array of pictures included or the type of matching (picture to picture, word to picture, array of 8 or an array of 16). In addition to academics, our students love using the ActiveFloor as a means of sensory integration. Our floor has a specific playlist dedicated just to sensory integration.” **Tara Rogers, Public Relations Specialist / Communications & Research, Eastern Suffolk BOCES**

## CREATE AN INTERACTIVE LEARNING ENVIRONMENT WITH A FLOOR, WALL OR EVEN A TABLE.

With ActiveFloor, there are multiple possibilities to create a dynamic and inclusive interactive learning environment. The system offers a wide range of models that can be mounted in the ceiling or the mobile versions, to move around where needed. Individually they are capable of projecting onto the floor, wall, or even at a table. This versatility provides users of all abilities with the opportunity to engage and play. The interactive technology fosters active participation, encourages creativity, and caters to diverse learning styles. Whether mounted on a wall, placed on a table, or projected onto the floor, ActiveFloor empowers students to interact and learn in a fun and accessible way.



The MobileMax ActiveFloor models, can be positioned at a tabletop height for those who need to be seated and can participate in game-based play using their hands or other pointers.

## LET'S ENTER THE FUTURE OF EDUCATION TOGETHER WITH ACTIVEFLOOR.

Learning through play and movement is an effective and motivating approach to reach students in all stages of their educational development. From early childhood cognitive and motor skills to one-on-one and small group sessions with occupational therapists or speech therapists, there are countless combinations of customizable play-based learning activities available in the ActiveFloor platform.

“Our students love to get up and move!! Soccer may be a fan favorite in our building. Whether the students are dancing to songs on the TV Tube, scoring goals in soccer, or playing Air hockey- they student love being active and social with their peers.” – **Colleen Kennedy-Dietrich, Special Education Teacher, Eastern Suffolk BOCES – Brookhaven Learning Center**

**At Eastern Suffolk BOCES, they are fully immersed in shaping the future of education. Witness their narrative of usage in an insightful Q&A session with Colleen Kennedy-Dietrich, Special Education Teacher and Tara Rogers, Public Relations Specialist / Communications & Research from Eastern Suffolk BOCES.**

***Q) What was the motivating factor for your school to focus on new ways of learning?***

A) Eastern Suffolk BOCES is an inclusive educational cooperative that works with over 51 Long Island Districts. ESBOCES provides direct instruction, behavior management and various support for students with multiple disabilities. Nicole Drinkwater, Principal at Brookhaven Learning Center (BLC), was interested in providing her students with a new and innovative way of learning-- the ActiveFloor was the perfect fit!

***Q) Why did you choose to implement ActiveFloor?***

A) After researching different interactive learning devices, the ActiveFloor seemed like the best fit for our program. It allows all students, both ambulatory students and student in wheelchairs, to access the floor and participate in interactive learning. It included academic material, sensory integration, as well games that promote social interaction. At Brookhaven Learning Center, we are a developmental program and focus on life skills in addition to academic curriculum. The floor allows us to create games that pertain to both areas.

***Q) How many units have you purchased?***

A) Brookhaven Learning Center started with one unit in our main building, and gained a second unit a year later. After seeing the floor in use, Eastern Suffolk BOCES decided to add several more units to other buildings within the organization.

***Q) Where are they located? (classroom, media center, activity room, etc)***

A) Our main unit at BLC is located in a section of our cafeteria that is now designated to our ActiveFloor. The unit in our second building is located in a communal classroom.

***Q) How often are you using ActiveFloor?***

A) At Brookhaven Learning Center, we use the ActiveFloor throughout the entire school day. Each classroom teacher receives a 30-minute time slot, once a week. Our speech teachers are able to sign up for the remaining 30-minute time slots and provide group speech sessions on the floor.

***Q) How many students are using ActiveFloor at one time? Do you work in small groups or one-on-one with a student?***

A) For the most part, the floor is used as a group activity; classes bring anywhere from 5-12 students down to use the floor. During speech sessions, a therapist may bring 1-4 students. The floor is occasionally used for individual sessions as a reward/earning incentive for specific students.

***Q) What kind of improvements have you noticed among your students since using ActiveFloor?***

A) The floor has helped students with turn-taking skills; our students need to wait patiently while other peers are using the

floor. The floor has also promoted socialization. Our students love pairing up with other peers to play games in a team format. The students will cheer on one another and be involved in the game as a spectator. Additionally, the floor is used to reinforce content material learning in class. Classroom teachers are able to implement follow up lessons on the floor and provide their students with a fun and interactive way of learning.

***Q) Do you have specific examples of areas of improvement?***

A) Many of my colleagues have stated that the ActiveFloor has been instrumental in teaching turn taking. Kerrie Clark, a fellow special education teacher states, "Overall the ActiveFloor has helped my class with turn taking and waiting patiently as each student takes a turn. The ActiveFloor has also been instrumental in teaching my students to be part of a team. The students cheer each other on and are learning how to work together in small groups, as team."

***Q) Now that you have created games in MyFloor, do you have any new game template suggestions?***

A) Folders within folders was a big request among our teachers. I am happy to see that ActiveFloor has now added this feature to the floor.

Additionally, being a teacher at a school that focuses on life skills, I would love to see a sequencing game; a game in which creators can make all different type of sequencing activities. The students would select pictures in order of occurrence, text could be added too for higher level learners who are able to read. The games can be general life skills (brushing teeth, making recipes, etc.), academic (sequencing the life cycle or a butterfly or chicken), or teachers can make sequence strips that are specific to their students (ex: reinforcing the daily schedule of a student, or reinforcing school day events for students) ■