

# VR: Enhancing Social and Emotional Learning

By Julie Mower, MA, Ed

## Can virtual reality (VR) enhance social and emotional learning curricula for students with autism?

In 2019, Vanderbilt University inaugurated the Frist Center for Autism and Innovation. This research hub develops tools and technology to transform the workplace for individuals on the autism spectrum.

The center creates computer-simulated and virtual reality [job](#) interviews, specialized driving challenges, and a block design test. These innovations are designed to help companies evaluate the visual problem-solving abilities of potential employees.

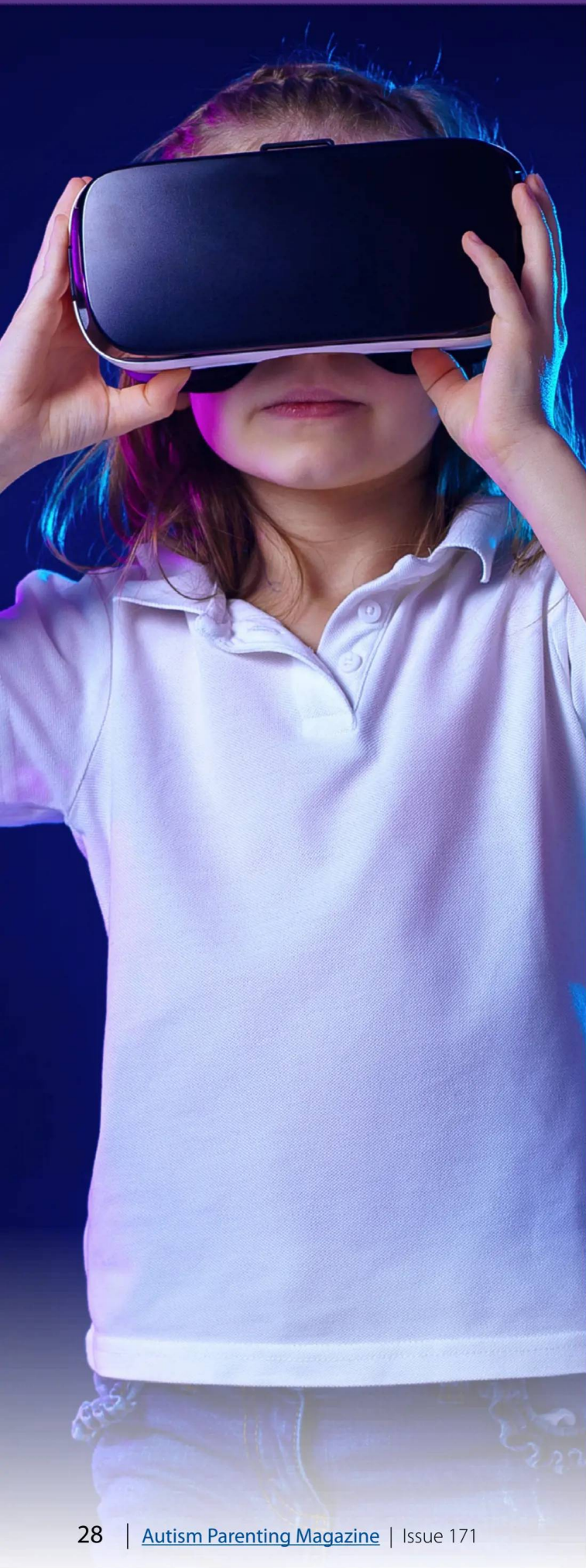
While this is helpful for adults with autism, studies have shown that virtual reality (VR) interventions can also improve children's and adolescents' social skills and [emotional recognition](#).

### Why VR therapy?

VR therapy offers several unique advantages and can be more targeted to each child. Typically developing (TD) children and children with neurological and neurodevelopmental disorders, both facing more significant challenges with Social and Emotional Learning (SEL), will benefit.



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VR therapy provides realistic life scenarios in a safe and controlled environment. This treatment creates opportunities for learning and adaptation through technology-driven immersive experiences that help children apply new [skills](#) they've learned to real-life situations.

Virtual reality's potential lies in its ability to create structured and predictable environments tailored to individual needs. This is particularly beneficial for children with autism, who often thrive on [routine](#) and clear expectations. VR allows therapists to create customized tasks and stimuli, exposing children to various social, emotional, and daily living activities that can be practiced repeatedly.

The controlled sensory environment of VR helps children with autism develop tolerance and adaptive responses to sensory inputs, such as sound, light, and visual effects, thereby reducing [anxiety](#) and managing sensory overload.

## How is VR being used today?

Virtual reality can simulate everyday scenarios, such as dining out, which helps children on the autism spectrum practice social rules and behaviors before facing real-world situations. This immersive training builds confidence and reduces anxiety associated with new experiences.

### Tech camps

Programs like tech camps for young people with autism can use VR to teach programming, job simulation, and other STEM skills. These camps provide hands-on experiences that foster interest in science and technology careers, helping to bridge the [employment](#) gap for individuals with autism.

### Coding programs

Other programs are specifically designed to teach individuals with autism coding and computer programming skills, providing them with the necessary tools and support to succeed in the tech industry.

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These programs offer students a structured learning environment that fosters interest in science and technology [careers](#), helping to bridge the employment gap for individuals with autism.

## STEM resources

Additionally, initiatives led by the University of Texas at Austin provide comprehensive STEM resources tailored to students with autism. These programs encourage engagement and skill development in astrophysics, chemistry, biology, and environmental science.

The programs aim to make STEM education accessible and engaging for young people on the autism spectrum, thereby enhancing their career prospects in these fields.

Furthermore, research discusses the use of VR in STEM career development, demonstrating how virtual learning environments can effectively prepare students with autism for future careers in science and technology. By simulating real-world job scenarios and providing hands-on experience, these programs help students build confidence and acquire practical skills needed for the workforce.

## Autism-accessible cities and learning apps

An additional example of VR in action is an initiative led by the University of Florida, which aims to create autism-accessible cities. By offering 360-degree VR tours of public spaces, such as museums and restaurants, children with autism can familiarize themselves with these environments, making real-world visits less daunting.

The father of a child on the autism spectrum co-founded one VR platform. The evidence-based learning app uses virtual reality to teach social, communication, and [life skills](#) to individuals on the autism spectrum. Schools, therapy practices, medical practitioners, and parents currently utilize the app as a supplementary learning tool.



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Some VR scenarios that support neurodiverse children include those that facilitate the development of language and social skills. Students can engage in virtual conversations to identify emotions and respond to social cues. There are also some tools to help nonverbal individuals express themselves.

One lesson helps children navigate a virtual store, following directions, visually scanning for items, and making selections. This helps develop problem-solving skills, executive functioning, and the ability to follow instructions, all in a controlled environment that allows for repeated practice without real-world pressures.

For movement, VR-based [yoga](#) lessons provide an engaging way for children who struggle with self-regulation and body awareness to practice attention, gross [motor skills](#), coordination, and balance.

For those who need anxiety management, virtual aquariums provide a calming environmental experience to help children develop strategies to manage stress and anxiety. Immersed in tranquil underwater surroundings, students can engage in interactive activities that promote self-awareness and [emotional regulation](#).

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# SOCIAL SKILLS



## A promising future for autism

With innovative programs and ongoing research, VR is a transformative tool in making everyday scenarios more accessible and less daunting for children with autism. These advancements not only enhance their current quality of life but also pave the way for greater independence and opportunities in the future.

Virtual reality's potential to impact autism therapy becomes increasingly promising as technology evolves, underscoring the importance of integrating these cutting-edge tools into educational and therapeutic practices.

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