

### THE ORANGE GROVE CENTER

#### THE CHALLENGE:

- Students with intellectual and mental health disabilities have a hard time functioning in everyday society. They have short attention spans and minimal coping or "calm down" skills to communicate and cope with anger.

#### THE SOLUTION:

- Milo and the robots4autism curriculum
- Repetition of lessons
- Reinforcement for positive behavior

#### THE IMPACT:

- Improved attention span
- Development of "calm down" and coping techniques when communicating
- Increased interaction and engagement during sessions

#### BACKGROUND

Sam\* is a 39-year-old man who lives in a support facility run by The Orange Grove Center in Chattanooga, Tennessee. He has significant intellectual and mental health disabilities, making it difficult for him to function in everyday society. His attention span is extremely short, he has trouble picking up on human emotions, and he has minimal coping and "calm down" skills to communicate when he is feeling upset or uncomfortable.



In October 2017, Sam met Milo, the facially expressive humanoid robot. After all those years of communication struggles, Sam had finally found a friend he wanted to spend time with, and who wanted to interact with him. "It's a different modality of someone else supporting Sam," said Amy Jo Schamens, a behavior analyst at Orange Grove Center. "Milo says the same thing over and over, but Milo never gets frustrated, which even the most patient person in the world may have trouble doing."



Sam works with Milo one to three times a week and asks for him by name every time Schamens comes to work with him. "He goes straight in, sits down, I turn Milo on, and Sam just starts interacting and paying attention," said Schamens. She said that Sam responds well to Milo's repetitive nature during the modules because people with autism and/or mental health issues are not always able to understand concepts the first time they hear something. Milo's three- to five-minute lessons are engaging and easy for students of all ages to repeat.

Sam has not exhibited any problem behaviors during sessions with Milo, even when Schamens redirects him away from the robot. "I'll ask him questions like, 'Do you want to take a break and leave Milo?' And he simply says, 'Yes.' This is a huge milestone for him as he communicated and responded to a question appropriately. We've gotten to a point during the Milo sessions where he will ask to leave and I'll ask him to finish the lesson, and he does so without getting angry or emotional."

Milo has the proven ability to engage learners with autism spectrum disorder more than 80% of the time, whereas these students engage with human therapists only 3-5% of the time.

## THE ORANGE GROVE CENTER

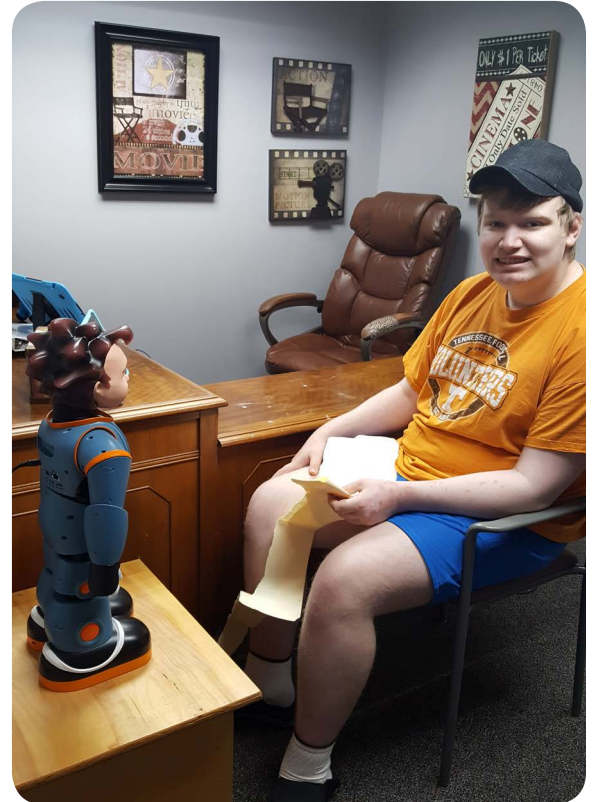
### RESULTS

Since using Milo, Sam's attention span has improved and he is able to sit through entire five-minute modules. He is starting to develop "calm down" and coping techniques like counting to 10 and taking deep breaths to communicate when he is starting to get angry or frustrated.

Sam isn't the only student using Milo and seeing results. Orange Grove has 10 students who work with Milo a few times a week. Seth, age 18, and Kyle, age 20, both have severe autism. Although both are non-verbal, Schamens said they respond to Milo by nodding or demonstrating what he is asking. "As soon as I walk in the classroom, they're both coming up to me and they're trying to pull me out of the room to go work with Milo," Schamens laughed.

Sam, Seth, and Kyle have all experienced success using Milo to develop "calm down" techniques and proactively communicate when they are angry, frustrated, or need a break. Milo has taught them that, instead of showing their anger physically or attempting to walk out of the room, they can take deep breaths, count to 10, squeeze stress balls, or use sign language. Students are rewarded for good behavior: when they interact with Milo, they get a small piece of candy or a fun drink after the session.

"It has been really fun to watch my students interact with Milo and develop skills they can use to communicate with others and feel more comfortable in the world around them," said Schamens. In the future, Schamens also hopes to use Milo with adults with Alzheimer's and dementia to see how they respond.



*The Orange Grove Center was established 60 years ago, and currently serves 700 individuals with intellectual or developmental disabilities.*

*\*This student's name has been changed for privacy.*

Have you been looking for the right  
tool to help learners with ASD improve  
their social and behavioral skills and  
gain the confidence to succeed  
academically and socially?

[Schedule a Demo Today!](#)

