

CUSTOMER: UNIVERSITY OF UTAH

Vidyo on Kubi helps connect University of Utah psychologists with autistic students



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Summary

A team of behavioral psychologists from the University of Utah deployed Vidyo on Kubi to help reach autistic students—as well as their teachers and caregivers to provide fact-to-face personalized evaluations and more efficient teacher training.

Challenge:

With approximately 1 in 68 children being identified with autism spectrum disorder (ADS) how do school psychologists make the most of their limited time and resources and help as many special-needs students as possible, by providing a level of personalized interaction and assessment with each individual student and additionally provide training to the teachers who interact with them on a daily basis?

Solution:

Pairing Vidyo's high-quality, reliable video conferencing on tablets with the Kubi telepresence solution by Revolve Robotics allowed psychologists from the University of Utah team to interact with autistic students in a much more natural and engaging manner, while also providing valuable coaching services for their teachers.

Key Results:

- Vidyo's integration with the Kubi telepresence robot gives the University of Utah team the ability to examine a room from different angles by leveraging far end camera control via the Vidyo desktop client, which in turn helps them observe student behavior and student-teacher interactions in a manner that would not have been possible with traditional, legacy, hardware-based video solutions.
- The “analyze, prescribe and coach” model that Vidyo on Kubi enables led to a 70 percent increase in student compliance with teacher instructions in classrooms that have worked with the University of Utah psychologists.
- Teachers have found the new solution easy to use, and feel empowered by having psychological resources at their disposal that they would not have otherwise.
- The team at the University of Utah can deploy Vidyo on Kubi endpoints thousands of miles away, and make assessments with no travel time or expense, providing psychological support for autistic students is a problem that requires an innovative solution. Across the United States, a shortage in the number of qualified school psychologists has made it difficult to connect teachers in special-needs classrooms with the level of psychological insight they need to be able to truly help their students.

Teams of behavioral psychologists, such as the one at the University of Utah led by Dr. Aaron Fischer, have put a lot of work into understanding the needs of autistic students, and developing coaching methods to help teachers meet those needs. However, these teams simply don't have the time or resources to be everywhere their help is needed.

Video conferencing seemed like a clear solution to the problem. In fact, the idea held so much promise that Dr. Fischer chose to write his dissertation on the subject of video conferencing in school psychology.

Dr. Fischer and his team identified tablets as a relatively inexpensive and easy-to-use method of getting the video feeds into the classrooms, but even tablets have their limitations. For one, their static point of view makes it very difficult for behavioral psychologists to look around the room and analyze students from different angles. Dr. Fischer came to the conclusion that he needed to make telepsychology feel more like the kind of traditional behavioral psychology his team would do if they were in the room with their subjects.

"Our question was: how can we get into schools and provide services at the snap of a finger?" said Dr. Fischer. "How do we maximize the time we are spending assessing kids?"

The team tried several robotic solutions, but with the Kubi robot from Revolve Robotics, available as

an integrated offering with Vidyo, Dr. Fischer and his team found the right inobtrusive solution to their problem.

Controlled from a laptop, psychologists can simply change their point of view of with Vidyo on Kubi, almost as easily as turning their heads while video conferencing.

The Vidyo on Kubi solution helped the University of Utah team "be" in classrooms and interact with autistic students and their teachers in a manner that they never would have been able to using traditional videoconferencing.

At the same time, the solution was affordable enough to fit within the team's budget.

With the help of Vidyo on Kubi, Dr. Fischer and his team now pursue a three-part approach to helping autistic students and their teachers:

Analyze

The University of Utah team starts by observing students for any signs of problematic behavior, such as feeding problems. Throwing food or refusing to eat is an issue that is observed in as much as 80 percent of all autistic children, and addressing these problems is a high priority for Dr. Fischer and his team. The team uses Vidyo on Kubi to observe these problems as they occur, in real time.

Prescribe

Once Dr. Fischer and his team have completed their analysis of the students, they can begin to identify why their problem behaviors are taking place. For instance, the students may be using their inappropriate behavior to get attention from teachers or to avoid having to do schoolwork.

Coach

Finally, the team would work with teachers to help them understand the problem, and to know what to do when the problem occurs. This last step is crucial, because it ensures that teachers will be able to continue applying the expertise of Dr. Fischer and his team, even after they have moved on to work with different teachers.



University of Utah Campus

Using Vidyo on Kubi to take the “analyze, prescribe, and coach” approach helped teachers experience better results when working with their autistic students. In fact, Dr. Fischer and his team found that student compliance with teacher instructions increased by 70 percent as the result of their work with Vidyo on Kubi.

When evaluating the team’s decision to use the Vidyo on Kubi solution, Dr. Fischer said the team is enthusiastic about the solution because it allows them to have an added level of control in the classroom that may not be possible with other video solutions.



“We’re really excited because we’re able to get teachers to implement intervention the way we ask them to do it,” said Dr. Fischer. “This is key, because if we can’t get them to do intervention the way we ask them to, then what’s the point?”

In addition, teachers enjoyed working with the Vidyo on Kubi solution because it easy to use. In short, anyone who can use a tablet can used Vidyo on Kubi. As a result, teachers did not need any special technical know-how to be able to connect their students with top-notch behavioral psychology support.

Now that the Vidyo on Kubi solution has been used successfully to help autistic children in the classroom, Dr. Fischer and his team hope to expand their program by bringing it into the homes of students. This would help parents implement many of the same techniques that Dr. Fischer has used before with teachers.