

Wall-to-wall projection a game-changing immersive space

By Rosie Clarke, *Editor*

Opportunities for learning are endless when your classroom can relocate to the deepest depths of the ocean or the farthest reach of space.

Massey University's sensory science facility can shape-shift into any environment, using state-of-the-art wall-to-wall projections to recreate the ambiance of a supermarket, space rocket, an ancient marketplace, or even the Amazon rainforest.

The Food Experience And Sensory Testing (FEAST) lab is part of the university's astonishing consumer testing facility—the only lab of its kind in Aotearoa New Zealand that can boast an entirely immersive space—and it allows researchers to simulate different eating and drinking situations. As Sensory Research Officer, Dr Amanda Dupas explained: "We can introduce sounds, smells, change furniture and accessories as we need for each study [and] we can maintain scientifically-control over our experiments."

"It is fantastic to be able to alter settings in the room!"

Massey approached Epson NZ to help facilitate their vision for a fully immersive space that would enable users to experience different real-world problems. Interactive



Technologies Technical Lead, Yousuf Baig knew this needed to be achieved with a wall-to-wall projection: "We were looking for a projection solution that could provide large images from a short distance. This was important due to the room dimensions and a low ceiling as we didn't want to create shadows on the projection wall."

The proposed solution? An ultra-short throw immersive projection system comprising EB-L1065UNL projectors combined with Epson's unique ELPLX01S ultra short throw "snorkel" lens.

Yousuf points out "there are few products available in the market that provide such a solution" and "apart from technical specification, other important factors included ease-of-use, versatility, installation options, compatibility with the control

system and cost". This is where Epson NZ came in. "They were very helpful throughout the duration of the project: they sent us a projection lens for a trial without any commitments, which not only provided us the chance to check the product works but also to think about designing a system in the room for mounting the projector on the ceiling," Yousuf recalls.

From Epson's perspective, the project was an opportunity to partner with a leading NZ University on a ground breaking teaching space which offers a true immersive experience.

Institutions looking to design a similar space should ideally aim for something purpose-built to provide an immersive environment, advises Yousuf: "Retrofitting a room will be challenging. Another important

point is to check if ceiling can hold the projector weight properly and proper mounting is used, which is resistant to earthquakes, etc."

The new technology is revolutionising the traditional learning environment. For schools, this technology could elevate learning across all subject areas as it allows students to experience a range of different environments without having to leave the school.

Epson representative, Graeme Durham, advises that the use of immersive spaces is increasing, especially in the simulation & training verticals.

Likewise, Professor Joanne Hort, Director of the Food Experience and Sensory Testing Laboratory at Massey University explains how it is enhancing research experiences: "Traditionally, consumer testing is done in a controlled setting like a meeting room or sensory booths, however, these do not reflect real consumption contexts."

"For example, we recently immersed participants in a bar restaurant setting to evaluate consumer response to burger patties, with and without the sauce and bun! We've also used a supermarket setting, followed by a home dining room setting, in a single session to track consumer response to a plant-based product from purchase through to consumption." ▲

