



# Enhancing Continued Medical Education with Shared Immersive Spaces

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## 1 Company Description

### 1.1 Med Learning Group

Med Learning Group, a division of Ultimate Medical Academy, is a full-service accredited medical education company. It focuses on developing and implementing continuing education that improves the ability of healthcare professionals (HCPs) to provide optimal care to their patients. It designs programmes for physicians, nurses, pharmacists, and other HCPs and has a deep understanding of how to educate both specialised audiences and general practitioners.

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## 1.2 Igloo Vision

Based in the UK, with offices across America and Australasia, Igloo Vision develops software that powers shared immersive spaces. This software takes any digital content, including immersive VR or 360° content, and puts it into a space that anyone can get inside. The technology is used by clients across a wide range of industries including education, healthcare, utilities, real estate and more. By showing content in this way, groups can experience educational VR content at the same time, making it a shared learning experience.

## 2 Project Summary

Med Learning Group owns three Igloo immersive cylinders that it deploys at healthcare shows across the USA. The cylinders, which Med Learning Group calls its VR Rooms, immerse groups of HCPs in 3D content to educate them across a range of disciplines such as neurology, ophthalmology, psychiatry, immunology, and medical advancements in these. Med Learning Group applied a robust evaluation technique on two of its events in 2019 with results including:

- A 31% gain in knowledge—with 81% answering knowledge-based questions correctly after the activity compared to 62% beforehand.
- 98% of participants indicated the VR content enhanced the learning experience.
- 90% of participants indicated the VR content would improve recall of lessons learned.

## 3 Project Details

### 3.1 The Situation

Med Learning Group has expertise in developing both live and online activities for continued education programmes that are innovative, case-based, interactive, and patient-centric. Its team are experts in applying adult learning theory and principles to its programmes and, more importantly, understanding the nuances of its various audiences.

Its programmes cover topics and disciplines including:

- Oncology
- Neurology
- Psychiatry
- Infectious diseases
- Immunology
- Cardiovascular
- Respiratory
- Ophthalmology
- Transplants
- New medical advancements in these

The organisation is always looking for creative, innovative, and interactive ways to deliver results and value. It is vital that its education programmes resonate with the HCP audience, to deliver improved competence and improved patient outcomes.

Med Learning Group has been using virtual reality (VR) since 2013. Shortly after the launch of the first commercially available Oculus headset, Med Learning Group acquired 100 headsets and deployed them at a meeting. At the time of writing, it now owns over 600 headsets that it incorporates into its programmes.

Both medicine and technology are constantly evolving, along with the ways that people learn. As such, Med Learning Group wanted to remain innovative in its methods of education.

## 3.2 The Solution

Med Learning Group began investigating ways of sharing its immersive content with groups of people, so that they could experience the content all at the same time. In the course of its research, the company came across Igloo Vision's shared immersive spaces. Following a series of demos, Med Learning Group made an initial purchase of one Igloo cylinder. It now owns three Igloo immersive cylinders.

## 3.3 Details of the Igloo Immersive Spaces

Igloo Vision's immersive workspaces come in many shapes, sizes, and degrees of sophistication, from simple sales and presentation suites to powerful CAVE-type solutions. They are available to be retrofitted in existing rooms, as custom-built configurations, or stand-alone pop-up structures.

These workspaces integrate with any digital content and a wide range of everyday enterprise tools, including standard video conferencing platforms. They allow teams to work with several different types of content, in different formats, from different sources, all at the same time. Display technologies can be customised to suit a client's needs, whether LED screens or projectors.

Each Igloo immersive workspace is powered by an Igloo Immersive Media Player (IMP) and Igloo software.

Med Learning Group's cylinders are portable and deployed at various trade shows across North America. Each cylinder is equipped with 3D projectors. At shows, delegates are handed a pair of active-shutter 3D glasses, so that they can almost reach out and touch the content they're viewing. So that Med Learning Group could get the most out of the technology, Igloo provided training on the set-up, running, and derigging of the cylinders, enabling Med Learning Group to deploy them wherever it chooses.

The cylinders are branded with new covers for each trade show so that they make attractive showpieces for the delegates.

### 3.4 Why Med Learning Group Was Attracted to Igloo Immersive Technology

With its early investment in headsets, Med Learning Group had already seen great success with VR content and learned valuable lessons about how best it could be deployed. It wanted to find a way to extend the benefits:

- *Sharing the experience*—with Igloo’s shared immersive spaces, whole groups could experience the VR content together and discuss it with each other in real time. Additionally, the 3D projection in the VR Rooms adds another level of immersion to the experience.
- *Leaving a lasting impression*—it’s important that the care providers, clinicians, and other HCPs can apply their learnings to their work with patients. With the VR Rooms, the experience is more engaging than reading or watching a video and leads to higher levels of retention.
- *Expanding the content*—Med Learning Group had found that, when designing content for just VR headsets, it was best to keep it only a few minutes long because of the audience attention span. Inside its VR Rooms, it could make use of longer pieces of content. This also enabled it to incorporate the broader perspectives of the faculty that had advised on the content.
- *A portable solution*—Igloo’s shared immersive spaces come in many shapes and sizes, including as custom-built configurations or stand-alone pop-up structures. Med Learning Group has been able to take its education programmes on the road across the USA with its travelling VR Rooms, sharing the experience with an even wider audience.

### 3.5 The VR Rooms in Action

The particular results discussed in this case study follow from Med Learning Group’s use of its VR Rooms at two association events in 2019 as part of educational programmes on diabetes: ADA 2019 in San Francisco, California, and AADE in Houston, Texas.

The ADA VR Room hosted 801 participants, whilst the AADE VR Room hosted 601 participants.

At these events, Med Learning Group delivered education programmes on the impact and progression of diabetes to audiences made up of primary care providers, endocrinologists, nurse practitioners, physician assistants, pharmacists, and certified diabetes educators. Participants could take a pre- and post-event evaluation to measure the impact of the programme.

The VR Rooms were used to show a 4K 360° video of faculty introducing a diabetes case, sharing key data points, and introducing the VR experience to groups of between 5-to-15 people, all wearing 3D glasses. Participants could step right into the visualisations, almost reaching out to touch them.

### 3.6 Evaluating the Impact

Med Learning Group's educational programmes have seen considerable success, with its VR Rooms noted as adding to the learning experience. Highlights include:

- 93% of learners identified a commitment to a practice change based on the education.
- A 31% gain in knowledge—with 81% answering knowledge-based questions correctly after the activity compared to 62% beforehand.
- More than 9 out of 10 participants agreed that they would recommend the programme to their colleagues.
- 98% of participants indicated the VR content enhanced the learning experience.
- 90% of participants indicated the VR content would improve recall of lessons learned.

**Table 1** End user feedback

Creating a memorable and unique experience	<p>"It was a really dynamic experience, it really captured my attention, and everything was presented very clearly—it kept me engaged throughout."</p> <p>"It really brings everything to life, it's not just something you see on a page. You can get inside what you're learning about, and it makes things stick better in your mind when you can physically see the content."</p>
Delivering education in an innovative way	<p>"This was an excellent representation of diabetic retinopathy that was both complex but simplified so that clinicians could understand the impact of the disease."</p> <p>"This VR experience was a great way to learn about the differences between the types of insulin."</p> <p>"The experience puts you in the disease, and you feel like you're exploring it in a very understandable way—it's very impressive."</p>
Taking learnings forward	<p>"It'll be awesome to incorporate the learnings into clinical practice and share it with our patients."</p> <p>"I thought it was very visual and easy to learn, and I'm looking forward to bringing that to my patient care."</p>

## 4 Feedback from End Users

Med Learning Group captured feedback and testimonials from attendees at the two shows across three main areas (Table 1):

## 5 Future Outlook/Roadmap

Going forward, Med Learning Group is building out another programme of events throughout 2022 to deploy its cylinders at.

At the height of the pandemic, the organisation pivoted to online-only events, for which it recreated a virtual exhibition area including a virtual Igloo to give online attendees an experience as close to the in-person one as possible. In the future, these online events will run alongside the in-person events, expanding its audience even further.

## 6 Conclusion

Med Learning Group's educational programmes have achieved excellent outcomes for HCPS, which will be passed on to those HCPS' patients. The use of immersive technology has assisted Med Learning Group in delivering engaging content that resonates with its audience. From the Igloo perspective, there are several key factors that contribute to the organisation's success.

### **Commitment to content creation**

Med Learning Group has been creating VR content since the early days of the medium. For each of its educational programmes, it develops unique content in-house, all introduced by experts in the field, which immerses participants in detailed visualisations. With its background in VR content, Med Learning Group has a deep understanding of how to make outstanding content for its VR Rooms.

### **Making the most of the branding options**

One of the benefits of an Igloo portable structure is that it has a blank canvas for branding. Med Learning Group creates custom covers for its VR Rooms at each event, stamping the rooms with its own identity. By creating such eye-catching showpieces, Med Learning Group ensures that participants are drawn into the space and content.

### **A disciplined approach to evaluation and optimisation**

Med Learning Group is always looking to evaluate and optimise the effectiveness of its educational programmes. Drawing on its scientific background, it uses robust research techniques to judge knowledge acquisition, attitude change, and recall amongst its audiences. And, in a spirit of continual improvement, it feeds its findings into future programmes. By taking such a disciplined approach to measurement and evaluation, Med Learning Group ensures that it gets maximum benefit from shared immersive spaces.