Virtual Environment Radiotherapy Training (VERT) was installed at RMIT University in 2011, supported by the Commonwealth as part of the joint collaboration by the Radiation Therapy Project Coordinators (RTPC). VERT utilises a state-of-the-art back projection system, which provides students with an immersive three-dimensional experience of the radiation therapy treatment room and linear accelerator. Students are able to use VERT to explore radiation therapy concepts such as dosimetry, patient positioning, equipment operation and safety considerations, without the need to be in a clinical department.

RMIT has a well-established student volunteer programme, which is employed across many disciplines in the university, including medical radiations. The LEAD (Learn, Engage, Aspire, and Develop) volunteer program is designed to give students an opportunity to improve their leadership and personal skills and enhance their employability upon graduating. Training is provided to the students by the RMIT Study and Learning Centre to prepare them for their roles as mentors. This includes theory about what mentoring is, the challenges faced by first year students, effective communication strategies, diversity in the learning environment, group facilitation, learning styles and reflective practice. Students are required to volunteer for at least fifteen hours, and all students who participate in the LEAD program receive a Certificate of Recognition from the Vice Chancellor, and a record of participation on their academic transcript.

In medical radiations at RMIT, 9 third year radiation therapy students volunteered to participate in the LEAD program and undergo training and to act as mentors to the first year RT students. In semester 2, the radiation therapy LEAD mentors utilised VERT to mentor first year radiation therapy students, helping to prepare them for their first clinical placement block. Each mentor was assigned three first year radiation therapy students. They were required to guide their group of mentees through four VERT activities which were provided to them in a booklet. The VERT activities were designed to introduce students to basic radiation therapy concepts, such as bunker layout; machine components, operation and safety; patient orientation, isocentre positioning and surface anatomy land-marking. This booklet was based on resources produced by the VERT Academic Community of Practice (VACoP) and modified to align with the intended learning outcomes of the first year clinical practice placement.

The mentors organised a time with their mentee group to meet and complete the VERT activities; with each activity taking approximately one hour to complete. While facilitating the tutorials, the mentors provided guidance to the mentees. They helped them to bridge the gap between theory and practice by providing their mentees with an insight into their own clinical experiences. The mentees took it in turns to practice using the hand pendant and problem solve the questions in the activity booklet. The tutorials were completed in the two week period prior to the mentees first clinical practice placement.

To date, no literature has been published that investigates peer mentoring in an undergraduate radiation therapy setting, nor the use of VERT as a platform for peer-to-peer learning. As such, approval from the Science, Engineering and Health College Human Ethics Advisory Network (CHEAN) of RMIT University has been granted to investigate outcomes of the peer mentoring project. Both third year mentors and first year mentees have been given an opportunity to partake in qualitative and quantitative research, via online surveys and focus groups. The objective of the research is to explore how using peer mentoring and VERT can support clinical practice for first year radiation therapy students, and how being a mentor and participating in these sessions has impacted on the third year mentors.

The results from this research are currently being analysed, and preliminary results indicate an overwhelmingly positive response from both mentees and mentors. Mentees in particular seem to enjoy practicing the use of the hand pendant and being able to ask questions of their mentor in a small group setting. Reports from the mentors indicate that the experience of being a mentor has helped improve their confidence, increase their communication skills and helped consolidate their clinical and theoretical radiation therapy knowledge.

Preliminary data from this year’s cohort of students will be used to improve the experience of mentees and mentors using VERT for the coming years, and to inform future change within the radiation therapy undergraduate program within RMIT University.

Marlene Douglas, radiation therapist from Ballarat Austin Radiation Oncology Centre has been working collaboratively with RMIT on this research project.