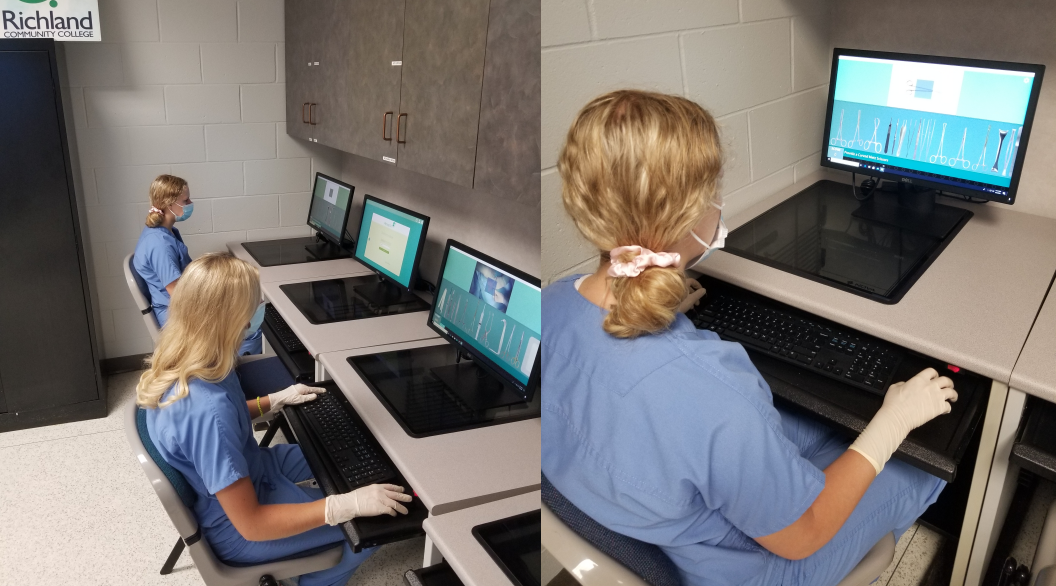




RICHLAND COMMUNITY COLLEGE



THE DISCOVERY

The COVID-19 pandemic really put a damper on the Surgical Technology program at Richland Community College's face-to-face learning and clinical experiences. Brooke Oliver, Assistant Professor of Surgical Technology, was looking for an alternative to increase her students' anticipation skills when they could not be in the clinical or lab environment.

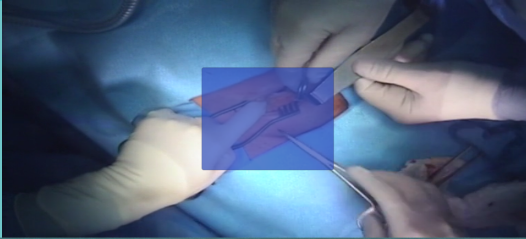
Information about the PeriopSim Learning and Assessment Platform had come across in an email that she received a few months back, but at the time it was only available on iOS and not PC or android. Brooke contacted



Angela Robert, CEO at Conquer Experience, to get more information and see if it was a good fit for the program, but ultimately could not go through with it because not all of the learners were using Apple products.

With the urgent needs identified with the COVID-19 pandemic, PeriopSim's focus expanded towards Surgical Technology programs and the PeriopSim team increased the platforms to include Mac, PC, Android and Android tablets. When Brooke received the email saying that PeriopSim was available on more devices, she jumped at the chance to use PeriopSim in her program.

Brooke's college had previously purchased another simulation software in January, but it is only available to use in lab, not at the students' home. Due to the pandemic, her students were not able to utilize it and only used it for five weeks before the school had to turn to online learning. All the Surgical Technology program's clinicals and face-to-face labs were paused due COVID restrictions.



THE SOLUTION

PeriopSim is a surgical training and assessment platform that combines virtual simulations, neuro-education and game-based learning to save time. When experience is in short supply or too expensive/challenging to attain, simulation training is an ideal option. Pilots have been using simulation for decades and it is a gold standard for certifying and re-certifying competence to fly some of the most complex planes in the world. Healthcare education is catching up.

A National Simulation Study (<https://www.ncsbn.org/685.htm>) was conducted and the study provides substantial evidence that up to 50% simulation can be effectively substituted for traditional clinical experience in all

prelicensure core nursing courses under conditions comparable to those described in the study. It is a study that we use as a foundation in describing how PeriopSim can benefit educators in terms of flexibility in education and timesaving. Additionally, we have been the subject of a number of research studies that you can find more information about here: <https://www.periopsim.com/research/>

PeriopSim takes live video footage of a one-hour long procedure and creates a Virtual Simulation that is 10 minutes long giving a 6x in time savings for that experience. 1 Experience Hour = 10 minutes in simulation with PeriopSim.

Prior to the COVID-19 pandemic, PeriopSim has been used by Educators in Departments of Surgical Services in hospitals across Canada and the US for the last few years. Educators use PeriopSim to improve confidence and competence of perioperative Registered Nurses (RNs) and Surgical Technologists (STs) during their orientation curriculum. PeriopSim can be combined with other learning tools such as AORN's Periop 101, videos, live simulations and preceptor job shadowing. PeriopSim is used to bridge the gap between classroom and the OR.

There are over 35 Virtual Simulation Experiences on the platform and over 15,000 of these experiences have been completed by learners at our customer sites.

To build these Experiences, we partnered with our customers at leading healthcare facilities to record the procedures, capture instrumentation and materials. We

Surgical Training and Assessment for the Operating Room Team



combine these assets with evidence based guidelines from leading sources including AORN and ORNAC. The Educator and Surgeon working with us confirm the quality of the module prior to release. We currently have a large pipeline of modules that are at different stages of development and we provide releases on a regular basis.

When COVID-19 impacted healthcare education more abruptly in mid-March 2020, we had some conversations with leaders in the Surgical Technology area as well as with our customers across the US and Canada in hospitals and we knew we had to act quickly and do something.

PeriopSim was designed to be used on iPad and in Virtual Reality with HPs WMR Reverb Headset or HTC VIVE. This would not work for Surgical Technology Programs that now had to move to 100% online learning. Students did not have access to iPads or Virtual Reality at home. We shifted our entire focus to launching PeriopSim on PC/Mac/Chromebook and Android/Windows Tablet as quickly as possible.

At the same time we had to come up with a low cost pricing package that would be easy to understand and make sense for schools in the short term as well as in the long term. We created our Educational Institution Package with limited pricing for COVID-19 and went live with communications. This allowed for the early leaders to share the information and get the innovative schools onboard and making simulation for procedures accessible within weeks.

We were incredibly impressed by the resilience, grace and energy from both the educators and learners in this new education configuration. The technical aptitude and speed at which all the Surgical Technology programs adopted PeriopSim was incredible and it was an honor to see this unfold.

A key aspect of PeriopSim that didn't require any adjustment is the learning data system that does assessments on learners. A grade of C or a D means they are learning and focusing on accuracy rather than speed. A and B grades mean that they are focusing on speed and delivery because they are already accurate. Incomplete means that they haven't done more than 3 simulations which is required to get an assessment. The effort it would take to do these detailed assessments is near impossible without technology like PeriopSim. For more information see here: [https:// support.periopsim.com/learner-competency-levels](https://support.periopsim.com/learner-competency-levels)



THE OUTCOME

Jumana Mascati, the PeriopSim Customer Success Manager, and Brooke had two meetings. The first meeting was to set up PeriopSim and the second was a 30-day check-in. At the set-up call, Jumana went through everything with Brooke and installed PeriopSim easily. Although there was a minor issue, it was easily solved and Brooke felt comfortable after the Zoom session. Her plan was to have a Zoom call with her students a few days later to help them set up their PeriopSim accounts and download the simulation software. Most of the students had no trouble getting PeriopSim set up. There was one student

who had the same problem as Brooke did during the set-up call, but it was an easy fix that Brooke was able to walk her through.

At the 30 day check-in call, Brooke informed Jumana that they had already gotten back into clinicals, but PeriopSim helped her students transition easily into the clinical setting by allowing them to practice surgical procedures and instrumentation competencies virtually during the time they were off. Within a month, the learners already completed 11 simulation hours which translates into over 66 experience hours.

Brooke is a really big fan of PeriopSim and what it does its capabilities. She likes how it really develops the anticipation skills of her learners and mimics the real life scenarios that are found in the OR. Due to the pandemic, she was missing two key factors of 1) student participation in surgical procedures in the clinical setting and 2) student competencies on instrumentation sets in lab. Thankfully PeriopSim was able to provide both of these via an online learning environment.

“They really like going through the instruments first and then participating in the procedure virtually.”

Brooke likes that PeriopSim has a variety of instrumentation sets, including large orthopedic sets that are broken into smaller modules. It gives the learners get a chance to familiarize themselves with the modules little by little and then piece it together at the end.

Since PeriopSim has its own grading and assessment system, Brooke raised the standards. In order for her learners to pass and get credit for the module, they need to get an A or B. The learners need to complete each module three times in a row with 0 mistakes. Her reasoning for the high standard is,

“In surgery, if you make 2 or 3 mistakes during the case, that is going to cost the surgeon time and the hospital money, so this is a real life situation. Mediocrity is not okay in the OR.”

Brooke has gone through the Educator Portal and downloaded the assessment reports by module and learner. She was able to see which instruments her students are missing and how long it takes the them to achieve and A or B. When going through it, she saw which learners were already competent on the procedures and which students need more practice. For the students who need more time, PeriopSim gives them a chance to develop their skills and



understanding of the procedure, which is invaluable for the students when they transition into the clinical setting.

Student feedback is essential to Brooke and she always tries to implement feedback surveys in her classroom. She asked her learners what they thought about PeriopSim and here is what they had to say.

“I really like the PeriopSim software, I think that it is a good learning tool to help us revisit instruments we have maybe forgotten the name of, and to learn the sequence in which instrumentation may be asked for in procedures. The software helps a lot with anticipation and knowing what is next.”

“I like the fact that it gets us prepared for anticipation while being in the OR. Also, the instruments are not always called

what we are used to so it allows us to learn all the different names for them.”

“I like that it is refreshing the instrumentation but sometimes it is hard because the names of the instruments aren’t always what we are used to.”

“I really like how it is easy and fun to use. It is almost like we get to play a game with learning. I like how each time you actually get to see yourself improve with the score going up and you are also able to learn the sequence of the overall operation and instrumentation.”

“I really like the program. Especially the procedures, it is showing what the instruments are actually used for and it is making a lot more sense to me. It is also helping me with anticipation. All in all, though it is great and actually a fun program.”

In the feedback survey, there were only a few suggested improvements. Some of the students felt the scroll feature on the instrument task bar slowed down their ability to pick and pass instruments. One of the students mentioned how the instrument names are different, but Brooke said that was an important part of learning instrumentation. The instrument names vary throughout hospitals, so it is essential for the learners students to learn the different names they are called. Overall, her students are really enjoying PeriopSim.

“The students just love it. They love how easy PeriopSim is to use.”

There is another cohort of students coming in August, who will be using PeriopSim in the Spring. Although PeriopSim was purchased with the special COVID-19 pricing, Brooke sees the value in PeriopSim and hopes to renew it once the subscription ends in May. Brooke is really glad that her college was able to purchase this with CARES funding and is a big fan of PeriopSim.

“I can see this growing and becoming phenomenal the farther the company (Conquer Experience and PeriopSim) progresses by adding more procedures and instrument trays.”

THE FACULTY



BROOKE OLIVER, CST, M.ED

Assistant Professor, Surgical
Technology