NORTHWESTERN MICHIGAN COLLEGE

THE DISCOVERY

Above: Northwestern Michigan College Campus.

COVID-19 was a challenge that many Surgical Technology Programs had to overcome so that the learners were still able to gain experience and hours while studying from home. Northwestern Michigan College was one of those schools that had to find solutions quickly. The Surgical Technology Program Coordinator, April Kesler, was looking to purchase something that

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PeriopSim

would help with lab sessions when she came across PeriopSim. She recognized it from when it was brought up before in the Surgical Technology Instructor group on Facebook and decided to look into it further.

All of the learners in the Surgical Technology Program are required to have their own iPad. So, April had to find something that would integrate smoothly with their current devices. She wanted a tool that could be used inside and outside of the classroom. This was a big priority for her because of COVID-19. If the learners could not come into the lab, it was important that they were still able to get the practice they needed. April said it was the right time and the right tool that she needed at the moment.

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- April Kesler, Surgical Technology Program Coordinator

Above: Surgical Technology students at Northwestern Michigan College 2020.

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"We are still in the online environment and we haven't gone into clinicals. PeriopSim helps learners feel like they are getting ready for the real world."

- April Kesler, Surgical Technology Program Coordinator

After a few months of using PeriopSim, April got an opportunity to order the Travelling PeriopSim VR demo Kit. With the limited time they had, April mentioned in the next Educator Success call with Jumana that she and two of her advanced learners were able to complete a procedure and go through it really quickly. The newer learners were just getting started and learning the basics. So, April felt that using the VR would be better for them after they got familiar with the instruments and procedure.

During the same educator success call, April expressed one factor that still continues to excite learners: the Leaderboards. Learners really like the competitive nature of it when seeing their names on the leaderboard. They like to review their scores and try to perfect it to obtain the highest score level. Learners especially love how the moderator encourages and tells them they did a good job.

The feedback given motivates and helps the learners gain confidence. April highlights that knowing that positive feedback will be given when a learner is trying something new for the first time, makes the operating room appear less scary for them.
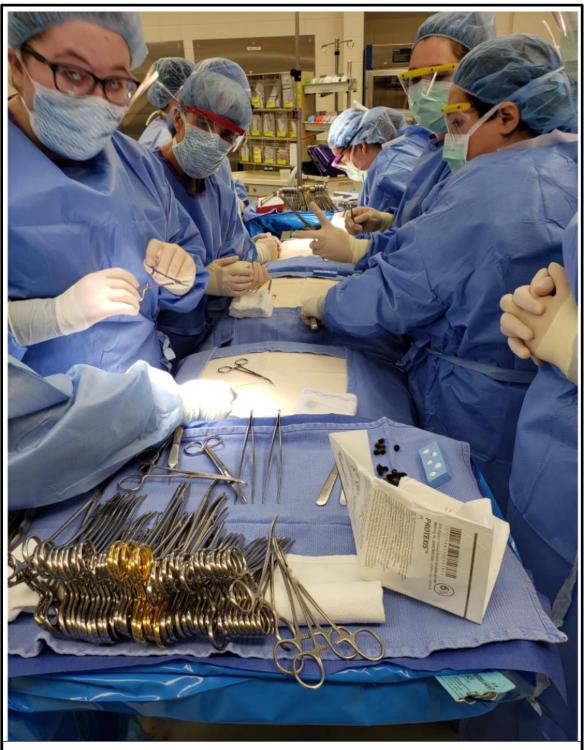
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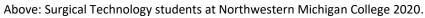
- April Kesler, Surgical Technology Program Coordinator

In fact, April said humorously that one student expressed her passion in learning on PeriopSim so far as to say that one of the procedures shown in a lab setting was "not exactly how it went in PeriopSim." April laughed and said "[she was] glad you know the procedures on PeriopSim, but there can be more than one way to do certain steps in a procedure! "

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Above: Surgical Technology students at Northwestern Michigan College 2020.

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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

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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

Surgical Training and Assessment for the Operating Room Team

PeriopSim

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 combine these assets with evidence based guidelines from leading sources including AORN and ORNAC. The Educator and Surgeon

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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 they 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. C or a D means they are learning and focusing on accuracy rather than speed. A and B means 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.

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For more information see here: https:// support.periopsim.com/learner-competency-levels

SCORE 717

Provide a Curved Mosquito Forceps

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THE OUTCOME

After 90 days, Jumana Mascati, the PeriopSim Customer Success Manager, had a check-in meeting with April. When they met, April was already comfortable using PeriopSim and had easily gotten the account set up. Right away, she used the dashboard reports to keep track of her learners' progress.

Above: Test results for Surgical Technology students at Northwestern Michigan College 2020.

Although Northwestern Michigan College's Surgical Technology Program had only had PeriopSim for three months, the learners were able to achieve many A's.

Usually, each experience module takes around seven to ten times before a learner is able to achieve an A grade. As all learners were heavy users of PeriopSim, April noticed a huge improvement in learning and said, "Their testing is better than my cohorts in the past and I can see the difference. The learners understand the instruments and procedures better since they can anticipate what is going to happen."

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- April Kesler, Surgical Technology Program Coordinator

An Educator tip that April shares is that she uses the PeriopSim grading system to grade learners accordingly. Learners that achieve a Level A competency rating receives full marks, and at each lower level, April takes five points away. Mainly used in labs, April plans to continue this grading system when learners start other surgical courses the next year.

April also shares that learners tend to work on PeriopSim assignments first before completing other exercises assigned. They like PeriopSim so much, learners claimed PeriopSim was the best tool that April has purchased so far.

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- April Kesler, Surgical Technology Program Coordinator

With the leaderboard feature, PeriopSim can create friendly competition and help generate an enjoyable platform for learners.

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Additionally with the leaderboard feature visible, PeriopSim can create friendly competition and help generate an enjoyable platform for learners.

With the special priced PeriopSim COVID-19 package, April mentioned that buying PeriopSim was not expensive in comparison with other tools. Recognizing that she is receiving good value and amazing results, April has started to share data with colleagues in the college to encourage usage.

All of the testing done shows that learners are performing better, when using PeriopSim, than they have in the past. Their results are outstanding and they have done extremely well, especially in the Neurosurgery procedures. April said that, "It's interactive and it teaches them how to anticipate instructions. They can practice the night before a case to review. They can also get a feel of it before they enter the lab with an instructor and it takes away the nervousness factor from them. This is why they have really enjoyed it, and get the "beforehand feel." It takes all those 'what ifs' out of it."

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- April Kesler, Surgical Technology Program Coordinator

Also in the educator success call, April expressed how her new cohort of learners are able to catch up on the instrumentation knowledge much more quickly compared to just labs. Whether it be understanding a concept of a surgical procedure or passing a certain instrument, learners are able to have a better understanding and anticipate the
next steps.

"The advantage of having both lab and PeriopSim and being able to work with them simultaneously, is definitely helping Learners tremendously."

- April Kesler, Surgical Technology Program Coordinator

The use of the procedure videos are also helping clinical learners review and refresh surgical procedures when switching clinical cases.

With the newly renovated building, April plans to purchase PeriopSim VR to put to use in their new virtual reality room. PeriopSim will offer many benefits, one being that learners can learn multiple names of one instrument and accommodate for what the surgeon asks for. This will definitely help learners reinforce, review instrumentation names, and clarify the procedure.

The Surgical Technology Program at Northwestern Michigan College lasts for four semesters, which is a little over a year. April plans to use PeriopSim throughout the whole program. With a new cohort and 10 more learners coming in the fall, April plans to add them all to the PeriopSim subscription and is considering a PeriopSim VR subscription upgrade.

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PeriopSim gives the Surgical Technology learners at Northwestern Michigan College an enjoyable learning experience, one of them even says,

"PeriopSim is the best tool purchased so far!"

THE FACULTY

April Kesler-Johnson

**Surgical Technology Program Coordinator
at Northwestern Michigan College**

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