

# DXSTORIES

DIGITAL TRANSFORMATION | *Teaching & Learning*

## 1. WHAT WAS THE PROBLEM?

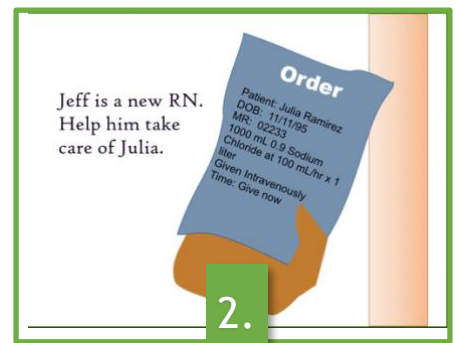
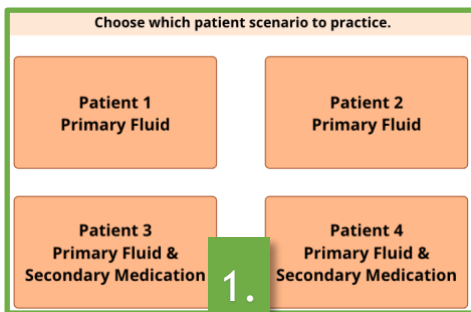
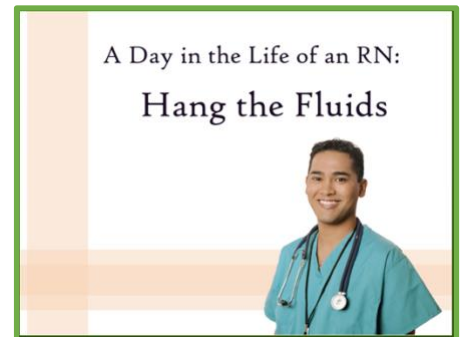
“As someone who’s worked in the medical field and been teaching for 10 years, I’ve noticed that the best learning for nursing students happens in an in-person setting. And one important skill they learn early on is how to run an IV pump to give intravenous fluids to patients. It’s something they’ll end up using multiple times a day in their career. And once they start learning, they often say, ‘I just wish I could keep practicing over and over until I know it cold!’ Frankly, that’s what we as instructors want, too. Muscle memory is an important part of how they learn this new skill. But each pump costs over \$2500; we have ten, and IV tubing and supplies can run \$50, for EACH practice. So, when you have 300 students you can imagine just how expensive this training can be.”

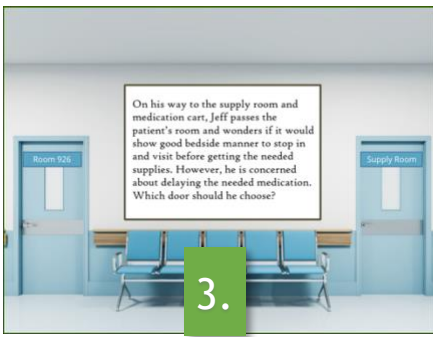
## 2. HOW DID THE PROJECT LEADER(S) APPROACH SOLVING THE PROBLEM?

“To address this problem, I expanded our students’ access to IV pumps--using simulation. Partnering with OTL’s Instructional Designers, we used Storyline and Qualtrics to make a 2-dimensional virtual machine for the students to practice with.”

Using the IV Pump, nursing students get to “choose-your-own-kind-of-adventure” through these steps:

1. Choose a patient scenario to practice.
2. The IV Pump displays the doctor’s order and patient information appear on the screen.



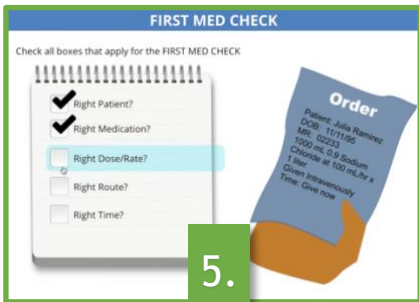


3.

3. Make “Choose-your-own-kind-of-adventure” along the way. 4. Choose potential equipment and supplies.

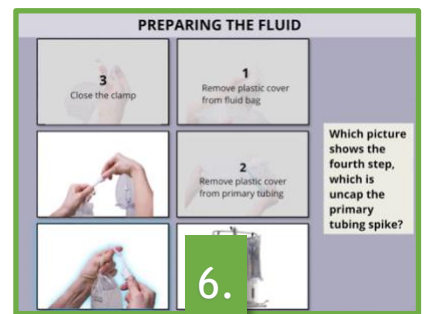


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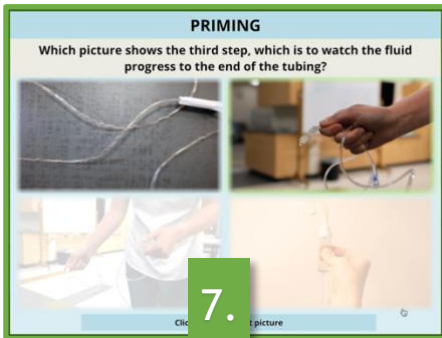
5.

5. Work through safety checks. 6. Practice the order for setting up the equipment.

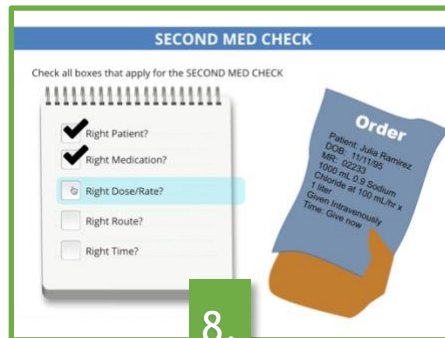


6.

7. Prime the tubing. 8. Work through another safety check. 9. Program the pump. Enter the rate and the volume to be infused where the IV Pump displays what is programmed, and the fluid counts down.



7.



8.



9.

“The great thing about [the IV Pump] is that the students can explore this process in a low-stress, controlled environment. Best of all: the Pump IV game is posted in Canvas so every student—all 300 of them—can practice as much as they would like.”



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### 3. WHAT WERE THE RESULTS?

“The Pump game has been available for two semesters now and my fellow instructors and I have noticed a big difference in students’ preparedness and comfort working with the pumps!

It’s the student’s response that means the most to me. I remember what it was like to be in their shoes, so to see their confidence improve so much is really gratifying.”

### 4. WHAT ARE THE NEXT STEPS?

“I couldn’t have created this tool on my own—I don’t have any programming skills. If you want to expand your students’ exposure to skills or tasks, don’t hesitate to start a conversation with OTL.”

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### 5. WHO TO CONTACT FOR MORE INFORMATION?

Dr. Francine Jensen, Associate Professor in the Department of Nursing, [francine.jensen@uvu.edu](mailto:francine.jensen@uvu.edu).

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