



Choose Your Own Pathway

A scenario based learning activity

PRESENTED BY: Emily Elliott PhD, RN, CEN and Jenny Firkins PhD, RN

Drs Elliott and Firkins have no
financial disclosures.



Objectives

- By the end of this presentation, learners will be able to describe how gamification can be used in the classroom setting.
- By the end of this presentation, learners will have explored how to use a “Choose your own pathway” design and describe the pros and cons.
- By the end of the presentation, learners will be able to describe the benefits of using gamification case based study design to augment current active learning in students.



Oregon Health & Science University School of Nursing

- Primary campus located in Portland, Oregon with regional campuses in La Grande, Monmouth, Ashland, Klamath Falls and Bend.
- Offer BSN, MNE, DNP (Pediatric, Family, Gerontological, Midwifery, and Psych), CRNA, and PhD.
- Offer 3 tracks to a BSN
 - Traditional 3-year program (158 students AY 2022-23)
 - Accelerated – 15 month, must already have an undergraduate degree (160 AY 2022-23 at 2 campuses only)
 - RN to BSN (117 AY 2023-24)
- Rolling admission for Accelerated Program with 3 entrance dates (Summer, Fall, and Winter term)
- OHSU Portland NCLEX Pass rate 95.88% AY 2022



What is GAMIFICATION?

- Use of gaming principles such as challenges, feedback, and interactivity in a learning context.
- Has been shown to be an effective learning strategy in high risk disciplines (law enforcement, pilots, air traffic control).
- Offers supportive, low stakes environment for students to have exposure to high risk, high stake, clinical situations.
- Using games in education has been shown to elicit a significant emotional reaction that can significantly positively improve learning through providing instant feedback allowing for better information retention.

What is Choose Your Own Pathway?

- An interactive gamified learning approach to case study implementation that leverages gaming principles to optimize the learner experience through active learning.
- The original design was structured to promote autonomy of nursing actions from the student perspective, ultimately helping students learn prioritization through data and assessment approaches.
 - One aspect of this was to prevent students from “changing” their minds in the care they provided virtually of these patients.
- The ultimate goal was to put students in the position of power to choose what the next steps should be in their care of complex acute patients and experience what happens.

Actions = Set Outcomes



CONGRATULATIONS! Your podium presentation has been accepted for the National League of Nursing Annual Meeting!

You need to get to the airport so that you can fly to Washington DC for your presentation. How do you want to get to the airport?

Drive yourself

Uber/Taxi

Phone a friend



Drive yourself

- UGH!!! Due to construction at the airport there is no open parking spot in long term parking! You end up having to pay \$23 a day to park your car at the airport! Better add that to your school reimbursement form...

At least you made it to the airport and are ready to go through security.

Uber/Taxi

- There was a 45 minute wait for an Uber/Taxi in your area, now you are running SUPER late and your anxiety is highly activated.

At least you made it to the airport and are ready to go through security.

Phone a friend

- Your friend agrees to give you a ride to the airport. You now owe your friend a favor. They always collect and it is going to cost you!

At least you made it to the airport and are ready to go through security.

Are you an Emily or a Jenny?

This is no way reflects an actual travel experience Emily and Jenny had.

Emily

- Packs everything in a single backpack – rustic style
- TSA Pre-Check

Be like Emily

Jenny

- Packs everything in a single carry on
- No TSA Pre-Check

Be like Jenny

Emily

- With a hop-skip and a jump you throw your backpack up on the TSA belt and walk through the pre-check scanner in 5 minutes. YAY!
Totally worth the money.
- What would you like to do now?

Wait for Jenny

Get an
overpriced
Coffee

Find a cozy
corner to relax

Wait for Jenny

- You stand impatiently at the other side of TSA security and watch as Jenny gets pulled for additional screening, twice...
- And then she attempts to go through again....
- 30 minutes later – grumpy – you finally meet up with her outside of security...

Meet up with
Jenny

Get an overpriced Coffee

- You eyeball Jenny at the back of the slow security line and decide you need to fuel your caffeine addiction.
- You find a coffee shop in the terminal and stand in line to order your morning cup of Java.
- Jenny then sends you a text – 30 minutes later – letting you know she made it through security.

Meet up with
Jenny

Find a Cozy Corner

- You walk the terminal to the nearest gate and find a cozy chair to sit in.
- Bonus!! There are additional outlets next to this chair. You get to charge up your electronics.
- 30 minutes later – Jenny texts you to let you know she finally made it through security.

Meet up with
Jenny

Jenny through security

- Security line moves along pretty well. You fly frequently so you already have your laptop out and shoes off.
- As your carry on bag goes through security it gets flagged. A very annoyed TSA agent comes over and yells at you for not taking your CPAP out of your carry on bag.
- How do you react?

Turn around and go home, this is a bad omen of things to come.

Remove your CPAP and make a repeat trip through security.

This is ridiculous, you grab your bag and make a run for it to your gate.

You go home

- Emily goes to NLN alone and makes the presentation. She is seen by a representative from Kaplan who gives Emily a million dollars for the copyright to CYOPs. Emily takes the money and moves to a yacht in the Mediterranean never to be seen again.

Click here to go back and make a different choice.

Security Re-Do

- You smile, killing the agent with kindness, and remove your CPAP and it sails through security.

Meet up with Emily

Did you really think that was a good choice?

- Unsurprisingly you are not very fast. You quickly get tackled by 5 TSA agents. Turns out it is a federal crime to run away from airport security. TSA reports you to the state board of nursing and your license is now on probation along with a lifetime membership on the global “no fly” list.

Click here to go back and make a different choice.

Meet up

- Emily and a very annoyed Jenny meet up and you start making your way to the gate.
- As you are walking, all of the sudden a man walking in front of you collapses. His partner immediately starts screaming for help.

Quickly walk past the couple, you are not on the clock.

Tell the couple you are both nurses and here to help.

Keep on walking

- You continue walking to the gate. Your mom texts you the next day how awful it was that someone died at the airport the day before. She says that she wished you had been there to help them. Your guilt slowly begins to eat away at you, driving you out of health care and back to your very first job at Dairy Queen.

Turn back time and go back to the airport and make a choice more in line with your profession ethics.

What do you want to do first?

Check for breathing and a pulse

Start CPR at a rate of 30:2 compression to breaths

Ask someone in the growing crowd to call 911

Tap man on the shoulder and ask if he is ok

Connect the AED and follow the instructions

Send someone to grab the AED you see down the hall

Based on the AHA guidelines,
this was not the correct choice.

Click here to go
back and try
again.

Correct! He does not respond. What next?

Check for breathing and a pulse

Start CPR at a rate of 30:2 compression to breaths

Ask someone in the growing crowd to call 911



Tap man on the shoulder and ask if he is ok

Connect the AED and follow the instructions

Send someone to grab the AED you see down the hall

Correct! Multiple people call 911 and go to get an airport employee. Next?

Check for breathing and a pulse

Start CPR at a rate of 30:2 compression to breaths



Ask someone in the growing crowd to call 911



Tap man on the shoulder and ask if he is ok

Connect the AED and follow the instructions

Send someone to grab the AED you see down the hall

Correct! He does not have a pulse and is not breathing. Next?



Check for breathing and a pulse

Start CPR at a rate of 30:2 compression to breaths



Ask someone in the growing crowd to call 911



Tap man on the shoulder and ask if he is ok

Connect the AED and follow the instructions

Send someone to grab the AED you see down the hall

Correct. A group of people run down the hall to the waiting AED. Next?



Check for breathing and a pulse

Start CPR at a rate of 30:2 compression to breaths



Ask someone in the growing crowd to call 911



Tap man on the shoulder and ask if he is ok

Connect the AED and follow the instructions



Send someone to grab the AED you see down the hall

Correct, Emily and Jenny start CPR. One last choice!



Check for breathing and a pulse



Start CPR at a rate of 30:2 compression to breaths



Ask someone in the growing crowd to call 911



Tap man on the shoulder and ask if he is ok

Connect the AED and follow the instructions



Send someone to grab the AED you see down the hall

Correct!

- The AED instructs you to deliver a shock. After safely delivering the shock, you check and the man now has a pulse and is breathing on his own.
- You put him in the recovery position as airport personnel arrive to take over.

Our Mixed-Methods Study

- Conducted over two terms of Acute Care with accelerated undergraduate students.
- Students completed weekly content quizzes and three surveys regarding confidence to provide care.
- Students were invited to a forum after the completion of the term to discuss their experience with the CYOP.

Our Mixed-Methods Study con't.

- 3 primary CYOP's were built and average approximately 875 slides each.
- Variable pathways were integrated in each design with student touch points being 35-45 slides per pathway.
- CYOP content was directly based on 3 weeks of content covered in didactic course each time as a study tool.

- Design process for one CYOP



Demographics/Quantitative Findings

- N=60 (36 spring term, 24 summer term)
- Age= 32 years old
- Average # of children under 18 = 0.62
- Average study time prior to exams = 17.7 hours
- Confidence level = 6.2 out of 10 (for both terms)
- Average time using CYOP = 1.2 hours

Qualitative Findings

- **Theme 1**: Challenged thinking and clinical judgement through realism and prioritization of nursing decisions.

Subtheme 1: Interaction Variety

Subtheme 2: Putting Pieces Together

- **Theme 2**: Interactive engagement facilitating knowledge application through adaptive learning, not memorization.
- **Theme 3**: Technology design interference with learning.

Theme 1

Challenged thinking and clinical judgement through realism and prioritization of nursing decisions.

- Most dominant student reported perception
- CYOP design helped to approximate clinical realism of sitting in clinical setting:
 - Being expected to make decisions with the information provided in the chart and through assessments
 - Allowed them to make their own choices in a safe environment that provided high stakes low occurrence situations

Theme 1 Student Feedback:

“...in the CYOP, I am the role of the nurse, I’m seeing myself as a nurse, I’m taking actions as a nurse and I’m going to see the consequences of the nurse. So, I think really putting myself in the role or that mindset is kind of preparing me for future nursing practice”

“...it’s a way of practicing clinical judgement. It integrates the knowledge and helps you apply that knowledge to situation in a way that you’re really working on your clinical judgement”

Subthemes 1 & 2

- **Interaction Variety:** CYOP design provided multimodal interactive design inciting positive engagement in content and corroborated the feeling of clinical realism.

“I liked that it wasn’t so clear that you just moved in a linear fashion. I liked the dimensionality of being able to say, well actually they’re not leading me to think like I should look at the lab values next, but that I could go all different places”

- **Putting Pieces Together:** CYOP design allowed students to follow their own thought process, to allow them to put the clinical picture together.

“...the hardest and most beneficial things was that it exposed my own ignorance, it exposed the information that was there in front of me but that I had looked past the first time I went through. I should have thought more about why that might have been the case based on what we were learning in the class”

Theme 2

Interactive Engagement Facilitating Knowledge Application through Adaptive Learning, Not Memorization

- Students reported the CYOP design facilitated direct knowledge application in nursing actions and not memorization.
- Adaptive learning design integrated in CYOP's allowed students to evaluate their own understanding of the content.

“I don’t like to just memorize information, but that’s kind of what I felt I was doing [in nursing school] and the CYOP let me really try it on and see how it fit, like trial and error and practice it in a way that was more effective for learning”

Theme 3

Technology Design Interference with Learning

- CYOP framework was solely based in a PowerPoint file and was a subsequent elements students had to adapt use for.
- The student identified issues were predominantly based on file size, navigation challenges, and instructional confusion.
- Students did not like the inability to go backwards in the game – but this was an intentional design feature.

“I would get kind of lost in the slides. I know you said don’t click back or, you know, don’t try to go backwards. But you know people... people like to do things that they’re told not to...”



Thank You