The Virtual Simulation Process

Week 5 – Gaming Element

Welcome to Week 5!

**Part 1**

Many of you are at the stage where the outline of the virtual simulation is completed and you’re beginning to think about the various gaming elements. You want to choose gaming elements that will help enhance your storyline and motivate students to engage with the simulation.

Here’s a list of content types from the Affinity Guide (2021) document:

Custom

* Rich text, images, videos, audio files, downloadable files, and embedded iframes.

Branching Question

* A branching choice for learners to select their learning path.
* Note: This can also be configured via the Map View.
* Supports scoring.

Multiple Selection

* A multiple selection inquiry that supports the learner selecting multiple choices at a time.
* Supports scoring.
* Can be configured to prevent the learner from continuing until some or all correct responses are provided.

Multiple Choice

* A multiple choice inquiry where the learner selects one choice at a time.
* Can be configured to prevent the learner from continuing until some or all correct responses are provided.
* Supports scoring.

Order the Steps

* Provide learners with a list of steps to be arranged in the right order.
* Can be configured to prevent the learner from continuing until some or all correct responses are provided.
* Supports scoring.

Text Response

* A free-text inquiry type where the learner types their response using their own words.
* Can be configured to prevent the learner from continuing until they have entered a response.

Linked Response

* Display a text response submitted by the learner earlier in the scenario - useful for displaying a learner’s response alongside an expert response.

Learner Results

* Display a full summary of the learner’s responses to inquiries, and their total score for the scenario.
* Provides learners with the ability to export a PDF containing their responses during the scenario, for later review.

Vitals

* A configurable vital signs simulator, where a list of vital sign codes and values can be added.

Patient Chat

* A natural-language based interaction with a simulated human avatar, where the learner interacts with the avatar using their own words.
* Note: Chat avatars require some extra setup from our team. Please contact [team@affinitylearning.ca](mailto:team@affinitylearning.ca) for assistance in creating a natural language avatar.

360o Video

* Upload or embed a 360o video file.

Image Hotspots - \*\*New\*\*

* A Hotspots can either be visible or discoverable.
* Visible hotspots show up initially on the image, but discoverable hotspots are only shown when the learner hovers (or taps on mobile) on them.

360o Image Hotspot - Coming Soon!!

* The 360 image hotspot is coming soon to Affinity very shortly

The RRT can help you brainstorm which content types will work best with your vision and goals of the virtual simulation.

This is where the fun begins!

**Part 2**

By now, you have drafted the outline and flow of your virtual simulation storyline, including decision point questions, answers, and feedback. From the outline, you can begin to think about the pre-brief and debrief. A positive learning experience occurs when clear directions are provided to the students.

Pre-brief

The pre-brief occurs before the students play the virtual simulation and explains the purpose and goals of the virtual simulation.

The pre-brief should identify:

* The learning outcomes
* If the virtual simulation will be graded (including due dates) or not. The recommendation is the virtual simulation not to be graded to support experiential pedagogy, which allows students to make mistakes and facilitates learning from their mistakes. The Affinity Learner Results content type can encourage this aspect allowing students to see where they did well and where there are gaps in the knowledge. Identifying gaps will supports students self-directed learning.
* The purpose of virtual simulation
* The assigned reading or homework required prior to playing the virtual simulation
* How to use Affinity. This may include where the link if located on the LMS, explanation that the link will transfer them to the Affinity site, an orientation to the platform in class, who to contact if they need technological support, trouble shooting
* How to play the game. For example, need to complete text inquiry boxes before the proceed button activates or need to answer question correctly before proceed activates. This will be specific to the content type your team chooses.
* The time needed to play the virtual simulation
* What is expected from the students regarding participation (e.g., self-debrief and group debrief requirements)
* Due date to complete the virtual simulation and any additional requirements.

The more familiar the educators are with the virtual simulation can help avert any potential challenges that may be experienced by the students.

Psychological safety is enhanced and fostered when the instructions are clear and concise related to the expectations of the student’s participation with the virtual simulation.

Debrief

The debrief is where the learning occurs. It is a series of questions that focus on the students’ learning process.

There are various methods to debrief and it is important to choose the best method for the virtual simulation you created and your students’ learning needs.

For example, if the students will be playing the virtual simulation prior to class, a self-debrief is beneficial to capture their initial thoughts. The self-debrief is recommended to be completed immediately after the virtual simulation. If you include the Learner Results Affinity content type in your virtual simulation, the students can use their summary report to reflect on their progress through the virtual simulation. Then, when you see the students at the next class, you can complete a group debrief. The self-debrief questions can be the same as the group debrief. An additional option, is to add an addition self-debrief to help the student process the group discussion.

If you are going to play the virtual simulation together as a group in class, then a group debrief first would be used. However, you can also include a self-debrief to encourage further reflection on their process during the virtual simulation, as well as on the group discussion.

During the debrief, it is important to ensure psychological safety of all the participants. Similar to the pre-brief, psychological safety is enhanced when the clear instructions and expectation of student’s participation are provided regarding the process of the debrief. For example, do you expect all students to complete a self-debrief, will all students be expected to discuss their process during the group debrief, will you call on each students to share their thoughts on one of the questions or is it voluntary based. The more the students are aware of what is expected, the more satisfied they will be of their experience and learning achieved.

Mohawk follows the PEARL (Promoting Excellence And Reflective Learning in Simulation) debrief format. The PEARLS framework focuses on: learner self-assessment, focused facilitation, and providing direct feedback (Eppich & Cheng, 2015). Review the Debrief 2 Learn website to download the PEARLS pocket guide: <https://debrief2learn.org/pearls-debriefing-tool/>

PEARLS start with Setting the Scene. During this time, you want to create a safe environment and explain what will occur during the debrief (e.g., purpose, goals, structure).

Once the scene is set, then you will begin the debrief inquiring about the students’ initial Reactions about how they felt during the virtual simulation. During this time, allow the students to purge the emotions and feelings. You will learn a lot from the discussion.

The next phase is the Description phase. This is when you will get the students to begin to focus on the key areas and concepts in the virtual simulation. Ask open-ended questions about their perspective and knowledge related to the content. During this time you will clarify any gaps and link the gaps back to the course content. It’s important during this time not to ‘teach’ the students, instead allow them the direct the learning and discussion. Open ended reflective questions will help you to understand their thought process and supports a collaborative environment for everyone to participate.

The next step is the Analysis. This is when you can focus the discussion on the virtual simulation to the course learning outcomes and objectives. It will assist students to make the connection to their individual learning throughout the virtual simulation and the course learning objectives.

The final step is the Summary. This is a good time to ask each student to identify one key takeaway from the virtual simulation. Going around the room allows students to share their final thought. You can also include anything that may have been missed or aspects you summarize from the students Learner Result summaries.

Here are some examples of debriefing questions used in previous virtual simulations (<https://pressbooks.library.ryerson.ca/healthhistory/chapter/reflective-or-self-debrief-questions/>). The reflective questions are aligned to the PEARLS format below:

Setting the Scene:

* Instructions: In the XX virtual simulation, you assumed the role of the XX in a XX setting. The following is a series of questions to guide your reflection on your simulation experience. The questions will help you express your reactions, analyze issues, reflect on your performance, and make connections to future clinical practice. There are 8 questions to be answered. It will take you up to 60 minutes to complete the questions.

Reaction:

* What were your thoughts and feelings while playing this virtual simulation?
* How did you feel in the role of the XX (name of discipline) during this simulation? Did anything surprise you?

Description:

* Did you learn anything about … (link to learning objective of the simulation)?
* Did you make any judgments about …. (link to images, language, behaviours used in game)?

Analysis

* Reflect on what you learned in relation to …..
* What can you take away from the incorrect decisions/responses you made?
* What are your own key learning points related to the learning objectives of this simulation?
  1. List learning objectives.
* What questions remain unanswered for you in relation to this simulation scenario?

Summary

* What will you take away from this simulation to incorporate into your clinical/professional practice?

As always, remember to reach out to us anytime you have questions and want to brainstorm together on the next steps in your virtual simulation process.

Remember this is an itervative learning journey and to enjoy the process!

Reference

Eppich, W., & Cheng, A. (2015). Promoting excellence and reflective learning in simulation (PEARLS): Development and rationale for a blended approach to health care simulation debriefing. Simulation in Healthcare : Journal of the Society for Medical Simulation, 10(2), 106.

[Health History Interview - Virtual Gaming Simulation](https://pressbooks.library.ryerson.ca/healthhistory) by Jennifer Lapum, Michelle Hughes, Joy Garmaise-Yee, Sara Richie, Sherry Espin, Don Rose, Susana Neves-Silva, Oona St-Amant, and Anneke Rumens is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/), except where otherwise noted.