Flipping a Lab Course to Virtual Learning

Assistant Professors: Brenda Orazietti & Sarah Evans
York University, School of Nursing
Learning Objectives

1. Understanding the similarities and differences between the virtual environment & the classroom environment
2. What do faculty need to do to address this difference
3. Learning styles and how faculty can use these different styles to address their student needs.
4. Taking a practice course and incorporating theory and practice skills in a virtual environment
5. What are the pros and cons of testing performance of skills in a virtual environment
• Open your zoom lab earlier
• Chat, get to know your students
• I address each student by name as they first log into the classroom, and say hello, ask how they are doing?
• I have my cat on top of my books, on my computer, on my shoulders.......Scooter has become a hit!
• We chat about news, weather, my cat, anything but class

Create a Sense of Community

Be genuine
Truly Care
Connect with your students
Started off with Ice Breakers

**WHAT DOES BREAKING THE ICE DO, ANYWAY?**

- **Positive Atmosphere**
  Icebreakers help lighten the mood and create a general feeling of well-being among the group, which leads to more engagement.

- **Helps People Relax**
  Meeting can be tense, they can deal with stressful topics, but an icebreaker can cut through that tension.

- **Breaks Down Social Barriers**
  By getting the group to work together and see each other as familiar but unique individuals, there's less separation.

- **Motivates**
  Icebreakers are fun and inject needed energy into the group, with that comes the inherent motivation to tackle the work.

- **Think Outside the Box**
  Icebreakers work like brainstorming by getting the group to bond by bouncing ideas off one another and think more creatively.

- **Get to Know One Another**
  Icebreakers are really ways to get to know more about the people you work with on a personal level, which helps to boost productivity.
Dicebreakers

- If you were invisible for a day, what would you choose to do?
- If you could choose a unique super power, what would it be?
- What is the grossest food you have ever tried?
- Who is your favorite movie character?
- What is your favorite game to play?
- What is one thing you are really good at?
Teach Students How to use Zoom Functions &
Your classroom etiquette

1. When to speak, how to speak, use of raising the blue hand
2. How to use the chat feature, when to use it
3. How to use the share screen feature, when to use it
4. How to use the annotate feature
5. How to use the polling feature
6. How to view a video link
7. How the break out rooms function & for how long
8. Breaks: washroom, eat, drink
9. How to deal with unstable internet, family, pets.......
Learning Styles

VERBAL
Words are your strongpoint! You prefer to use words both in speech and in writing!

VISUAL
You prefer to use pictures, diagrams, images and spatial understanding to help you learn.

MUSICAL / AUDITORY
You prefer using sounds or music or even rhythms to help you learn.

PHYSICAL / KINAESTHETIC
You use your hands, body and sense of touch to help you learn. You might ‘act things out’.

LOGICAL / MATHEMATICAL
Learning is easier for you if you use logic, reasoning, systems and sequences.

SOCIAL
You like to learn new things as a part of a group. Explaining your understanding to a group helps you to learn.

SOLITARY
You like to work alone. You use self-study and prefer your own company when learning.

WHAT’S YOUR LEARNING STYLE?

COMBINATION
Your learning style is a combination of two or more of these styles.
Theory of Teaching On-Line

• Teaching Commons offers courses on how to teach well online: BOLD free of charge!

• York University Faculty Expert: Ron Owston gave 2 free webinars on the topic of online teaching

• Also COOL CAMP course USA, $200.00

• There is no rule book just for labs! Take what works for your course from on-line teaching practices

• Key Principles: Active Learning

• Mix strategies up, not the same methods each item, have students present, show video, use zoom features

• Check their understanding - ask questions, take a poll
Emphasize the Benefits to Learning Virtually

- Faculty should be optimistic & positive
- Saves time traveling
- Save $ travelling
- More relaxed atmosphere
- Can be private vs in the lab
- Can still get to know classmates
- Can still interact with faculty
Students Need Equipment for the Virtual Lab

Pen Lights, Tongue Depressors, Stethoscopes, Table top Mirrors, Rulers, Measuring tapes, Textbooks, Papers, Pens, Privacy
Physical Assessment Course HH-NURS 1543

12 weeks of lecture - 2 hr/wk

Followed by Labs – 2 hrs/wk

Followed by OSCE’s
Prioritize
What needs to be taught

Plan how to teach it
Virtually!

Check in
Ask if the lessons are meaningful towards their learning

Assessment - Cornerstone of nursing practice
How to Flip the Lab to Virtual?

- Use textbook resources for faculty
- Use Break-out rooms, where students can pair up to practice

Practice with Each Other

This Photo by Unknown Author is licensed under CC BY-SA-NC
Students can still provide a good assessment in a Virtual World!
Resources Provided for students

**Videos**

- Video links provided on eClass of assessment skills from course text
- Video links from YouTube that are course appropriate are provided on eClass and in the weekly slide decks
- Other textbook and online nursing videos provided from the York Library

**Activities**

- Lab documents provided weekly for students to complete when in a break out room ie complete health history, mini-mental.
- Students are asked to bring to the labs different assessment instruments such as penlight, stethoscope

**Charts & Diagrams**

- Pain Assessment tools,
- scales (Skin assessment)
- charts (percussion)
Resources Created for Virtual Learning

Practice Worksheets

Internet Videos

Google Docs and annotated board activities

Capacity for FT & PT Faculty to learn how to teach this way

Faculty Demonstrations

Opportunities for faculty to provide feedback to students
References for On-Line Teaching


Students work together & take health histories & health interviews - in break out rooms
Communicating verbal and non-verbal
Working together on activities through annotated boards, google docs and shared screens - Eg. CASE Studies
Virtual assessments in the actual world: Where are we today with this technology?
Preauricular nodes:
DRAIN SCALP, SKIN

Differential DX:
Scalp infections, mycobacterial infections

Malignancies:
Skin neoplasms, lymphomas, head and neck squamous cell carcinomas

Posterior cervical nodes:
DRAIN SCALP, NECK, UPPER THORACIC SKIN

Differential DX:
Same as preauricular nodes

Supraclavicular nodes:
DRAIN GASTROINTESTINAL TRACT, GENITOURINARY TRACT, PULMONARY

Differential diagnosis:
Abdominal/thoracic neoplasms, thyroid/laryngeal disease, mycobacterial/fungal infections

Submandibular nodes:
DRAIN ORAL CAVITY

Differential diagnosis:
Mononucleosis, upper respiratory viral/bacterial infection, mycobacterial infection, toxoplasma, cytomegalovirus, dental disease, rubella

Malignancies:
Squamous cell carcinoma of the head and neck, lymphomas, leukemias

Anterior cervical nodes:
DRAIN LARYNX, TONGUE, OROPHARYNX, ANTERIOR NECK

Differential diagnosis:
same as submandibular nodes

Lymph nodes assessment
Palpate the nodes of the head & neck
Extra Images To Support Palpation

The Deep Cervical Chain & Supraclavicular Nodes
Demonstration of assessment of 12 Cranial Nerves
Cranial Nerves in a comical approach

Another more explicit approach
Another approach

• This is a version may be more difficult to understand in a visual context — for some

• How faculty present ideas varies depends

• Variation needs to consider the audience & the complexity that needs to be relayed
Consider what students can use for their practice needs - Innovative approach

• Assessment for other systems - Thorax and Lungs

• Students used t-shirts, tape and dots to create landmarks for assessment of thorax & lungs
Models used to show particular detail to add to in depth discussions & questions with added audio options for increased fidelity

NORMAL Breath Sounds
https://www.youtube.com/watch?v=JFWMJGtmG5E

ABNORMAL
https://www.youtube.com/watch?v=2NvBk61ngDY
Human Lungs – reality at its highest
Visual learners have an easier time with this type of learning/teaching discussion

Understanding the valves in the heart
Students work with their own system (Kinesthetic) and can view normal & abnormal through demonstration and discussion

• Musculoskeletal system comes to life
• Muscles in action
Models can be real or not

- Allow instructor to demonstrate and discuss what students need to be aware of in their assessment process and what is considered within normal range and what is abnormal
Students were guided to use the website set up by Dr. Iris Epstein on Smart Box

Examinations: Student Filmed their own focused physical assessments

(Jarvis, 2019)
Video- Recorded Assignments -

How to test in a virtual world?

- Students can demonstrate to the instructor individually
- Students can use a video to record their performance

What to provide for successful evaluation

- A Rubric
- A Grading scheme
- Direct instructions related to subject area
- Direct instructions for recording – Dos and Do Nots
- A FAQ sheet for all types of questions

Lessons learned

- Students need direction
- Students will not all get 100% because they recorded their performance
- Students will work very hard on this type of assignment
Activity: How can you apply this to your Lab?

Open Discussion Time