

Student Satisfaction to a Multimedia Approach to Engaged Learning

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Faculty Disclosure

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Conflict of Interest: None
Sponsorship/Commercial Interest: None

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Session Objectives

- Identify effective and dynamic teaching strategies to promote active learning in the classroom.
- Identify student preferences for teaching-learning strategies.

Purpose of Multimedia Approach

- Increase use of technology in classroom
- Address multiple learning styles
- Address learning styles of millennials
- Promote an active learning environment
- Decrease compartmentalization of course material



Active Learning

- Involves students in the learning process - makes them active participants in the learning process which makes learning meaningful.
- Provides opportunities for students to actively become engaged in learning.

learning is
NOT
a spectator
sport.
so let's
PLAY!

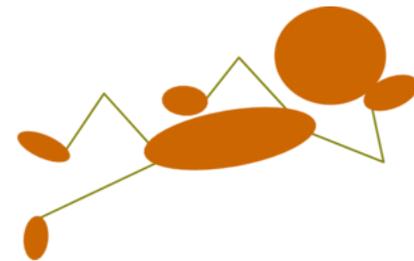
Active Learning & Technology

- Addresses multiple learning styles
- Maximizes students' attention during class
- May help undergraduate students gain competency (Nicholson et al., 2009; Shin et al., 2014).
- Technology promotes active learning.

Learning by...
Listening,
Seeing,
or Doing

Passive Learning - Lecture

- Allows for little student interaction;
- Not as effective in developing critical thinking or clinical reasoning skills;
- Best for auditory learners;



Passive Learning - Lecture

- Utilized in most classrooms today;
- Does not address visual, tactile, or psychomotor learners;
- Encourages learners to be passive



Student Preference - Passive

- What they have been socialized into
- Decreases their anxiety
- Provides a sense of security that they are being given the information needed to be successful (Billings & Halstead, 2012, p. 171).



Process

- Combined lecture content through case studies & animation, to change the platform for course content delivery from passive (lecture) to active.
- Integration of real life scenarios demonstrating nursing care and assessment;

Process Cont'd

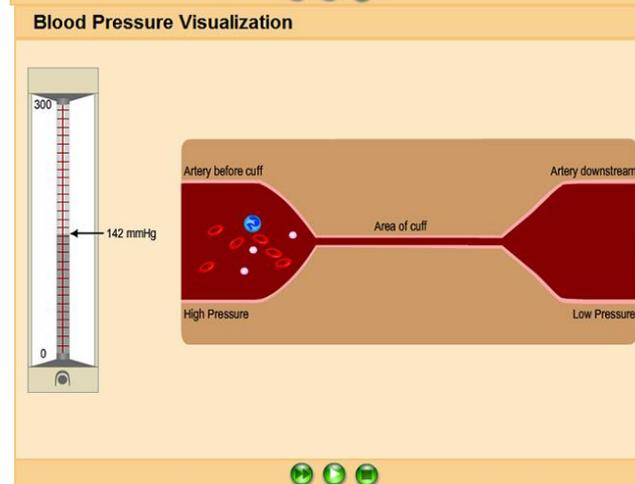
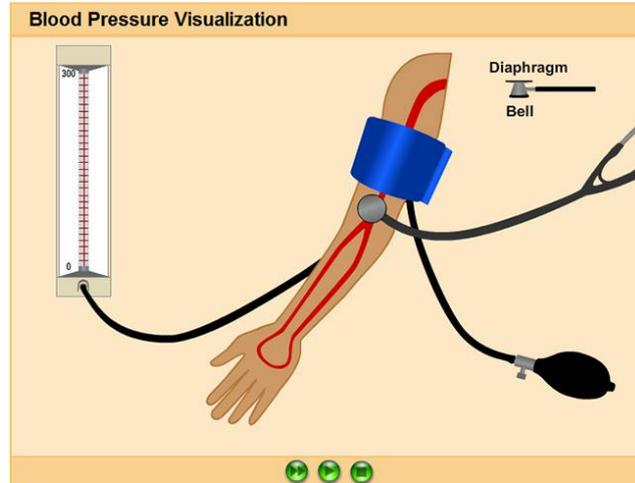
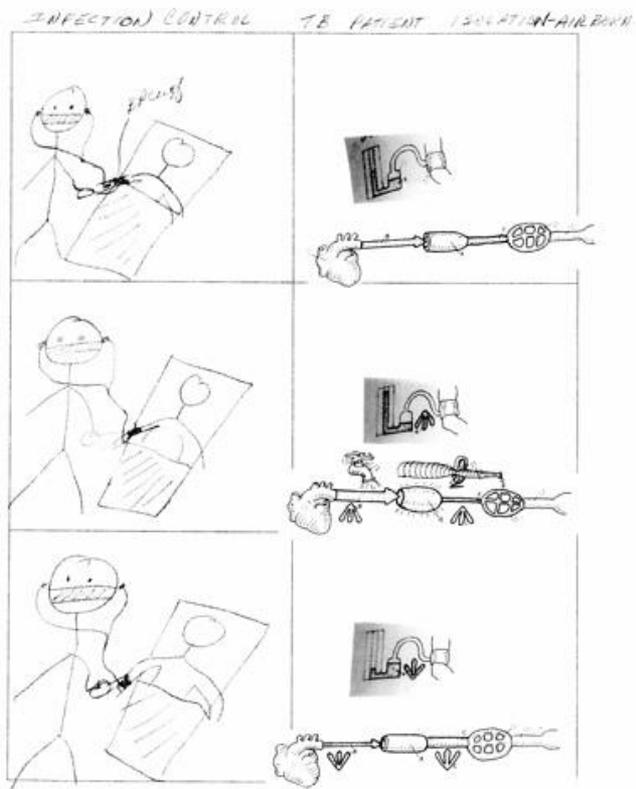
- Animation to illustrate difficult pathophysiological processes;
- Integration of multiple forms of technology to present complex material to meet different learning styles.

Case History

Mr. Jason Hill, a 29 year old Caucasian male, presents at the Emergency Department (ED) with complaints of a productive cough of greater than 3 weeks, night sweats, loss of appetite, and fatigue. He appears very thin, pale, and tired. When asked for a home address and emergency contact information, Mr. Hill reports that he has been homeless for over a year after losing his home to foreclosure. He states he is estranged from his family. Based on his history, what actions should be taken by the nurse?

[Introduction](#)[The Case](#)[Patient Care....](#)[Interactive Questions....](#)[Transmission of TB...](#)[States of Infection....](#)[Patient Assessment....](#)[Pathophysiology Images and Sounds....](#)[Patient Care Continued....](#)[Credits](#)

Storyboard



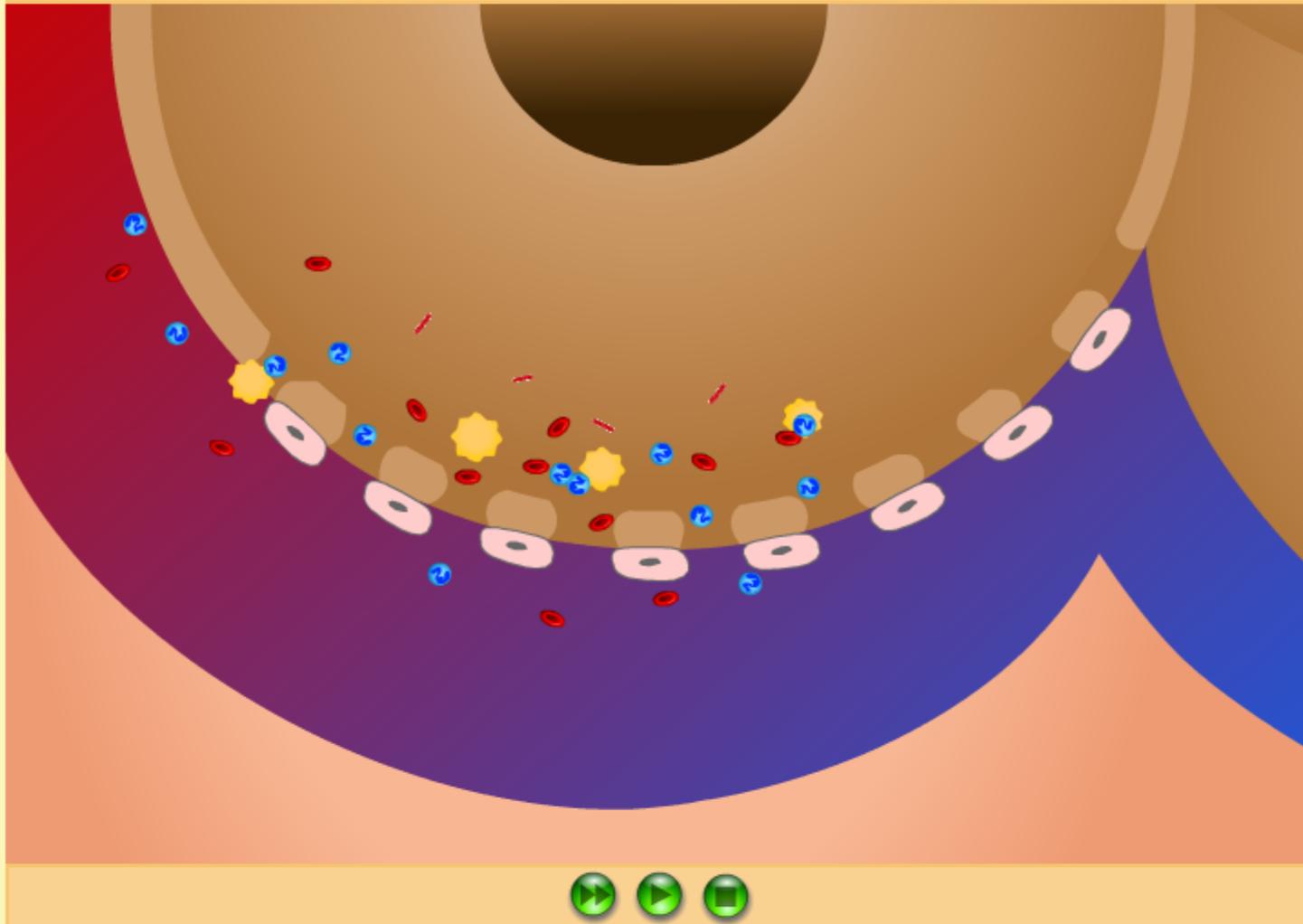


Infection Control

Tuberculosis



Vasodilation And Vascular Permeability



Introduction

The Case

Patient Care....

Interactive
Questions....

Transmission of TB...

States of Infection....

T Primary and Secondary

Breathed into Lung

Macrophages

T Vasodilation

Vasodilation

T Lymph System

Tubercle Formation

Caseous Necrosis

Ghon Complex



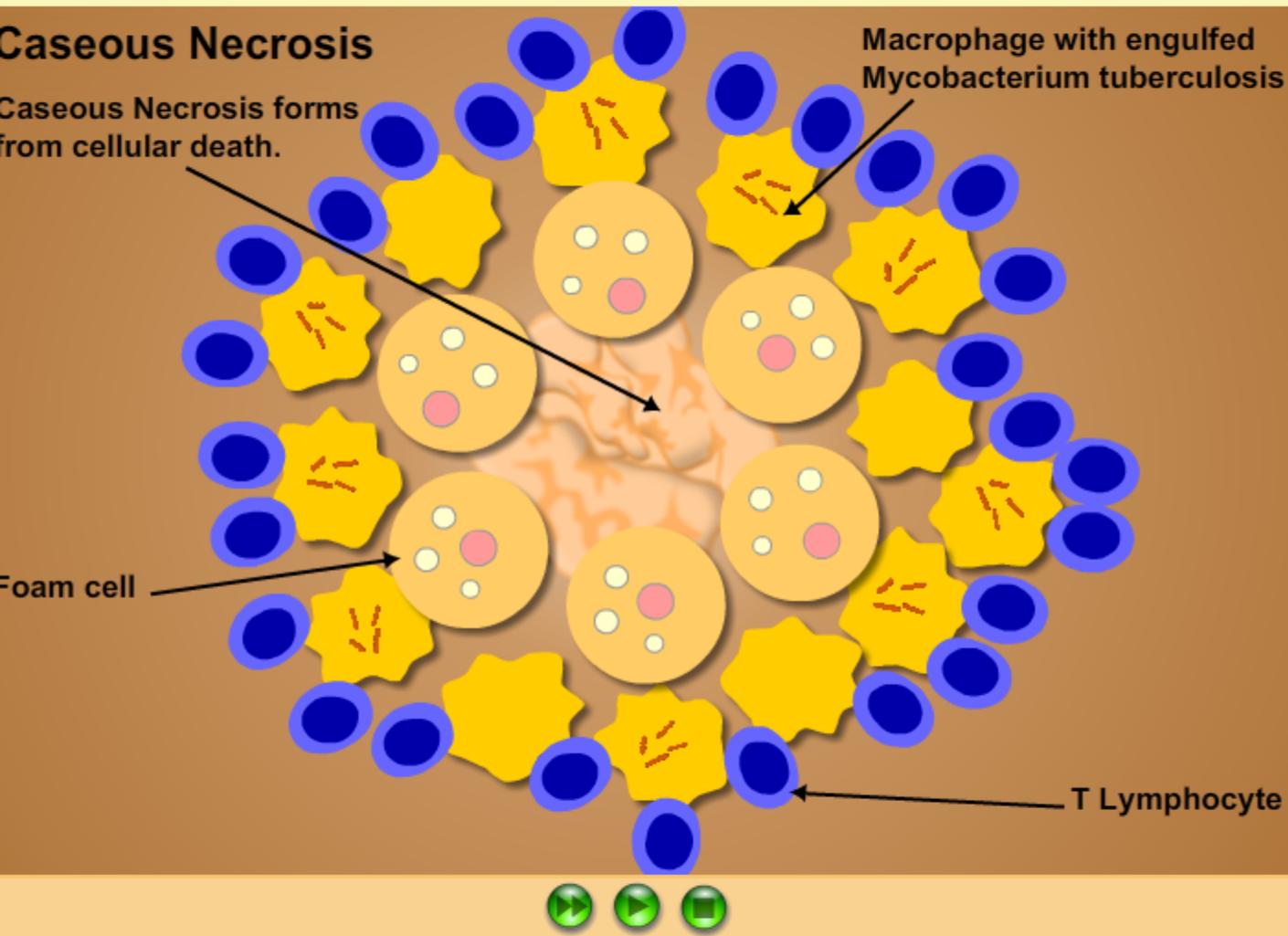
Infection Control

Tuberculosis



Caseous Necrosis

Caseous Necrosis forms from cellular death.



Introduction

The Case

Patient Care....

Interactive Questions....

Transmission of TB...

States of Infection....

- T Primary and Secondary
-  Breathed into Lung
-  Macrophages
- T Vasodilation
-  Vasodilation
- T Lymph System
-  Tubercle Formation
-  Caseous Necrosis
-  Ghon Complex

Previous Screen



Next Screen

Informed Consent

- Although not a research project, IRB approval was obtained.
- Informed consent obtained.



Participants/Demographics

- Convenience sample:
 - 154 generic & accelerated BSN sophomore students.
- Enrolled in Fundamentals of Nursing.
- 3 accelerated BSN cohorts & 3 generic BSN cohorts (6 semesters).



Demographics cont'd

● Female:	99	(66.9%)
● Male:	49	(31.8%)
● <20 – 30 years of age:	128	(83.1%)
● African American	12	(7.8%)
● Caucasian	128	(83.1%)
● Asian	5	(3.2%)
● Hispanic	6	(3.9%)

Evaluation Findings

Students with lower GPA's felt that:

- Seeing the video & animation facilitated a better understanding of the lecture content ($-.284$ $p = 0.01$).
- Learning in this format helped to see how content of all classes fit together ($-.73$ $p = 0.01$).

Evaluation Findings

- They would use if available ($-.297 p = 0.01$).
- Lecture & animated patho & PA facilitated a better understanding of ND ($-.411 p = 0.01$).
- Availability of the video & animation would assist with studying ($-.298 p = 0.01$).

Evaluation Findings

Younger students felt that:

- The video & animation would help them study (-.208** $p = 0.01$).



Student Comments

- It helped me stay focus. Put both classes [fundamentals & patho] together.
- I liked the visualization because it helped me further understand the material.
- Tied all the material together.

Student Comments

- I wish I had seen this presentation when I was taking microbiology or patho.
- I liked that different aspect[s] of nursing were brought together.

Conclusion

- Use of multimedia engages students by actively involving students in the learning process. Overall, students voiced a preference for all instructional materials to be presented in an animated format. This is consistent with the literature which states that students are more successful when actively engaged in the learning process (Swanson et al., 2011).



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