

Technology-Enhanced Peer Role-Play: An Effective Teaching Method Empowering Students for Active Learning



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I hear and I forget.

I see and I remember.

I do and I understand.

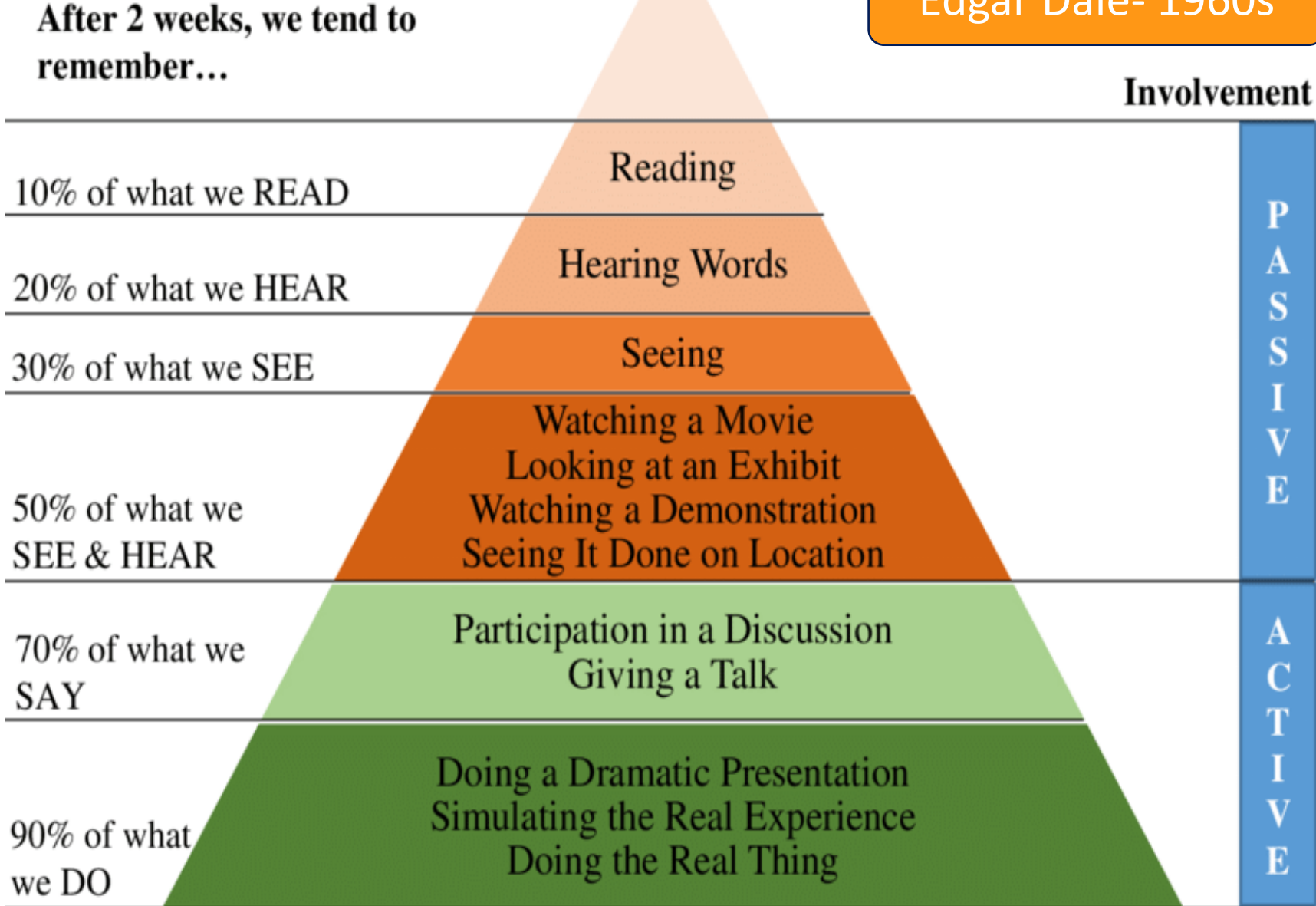
I reflect and I learn.



Confucius (551 BC to 479 BC)

Cone of Learning

Edgar Dale- 1960s



Introduction:

01

Student Peer role-play (PRP) is a simulation-based teaching method that involves students actively engaging in a scenario by taking on specific roles

02

Student PRP in corporations with technology can be used for Case-Based learning

03

Virtual clinical cases were prepared using the latest e-Learning tools like Articulate Storyline 360.



Experiential Learning



Evolution of Teaching & Learning



“Sage on the stage”

“Guide on the side”

**EMPOWERING
STUDENTS**

Technology-Enhanced Student Peer Role-Play: An Effective Teaching Method Empowering Students for Active Experiential



Students PRP is an innovative method and can be used effectively for Case-Based learning



Articulate storyline technology used in creating this project

Scenario

A simulated scenario was created, involving a motor vehicle accident resulting in traumatic dislocation of the hip in a young adult.

Fourth-year medical students participated in this simulation, assuming the roles of Emergency Room doctors and a simulated patient.

They actively engaged in history taking, physical examination, and the various steps of management.



A patient arrived at the ER



Doctors examining the patient



Examining the Sciatic Nerve



History

Examination

Diagnosis

Treatment

Finish



IMU
UNIVERSITY

eLearning

A case of Traumatic Dislocation of the hip Updated link

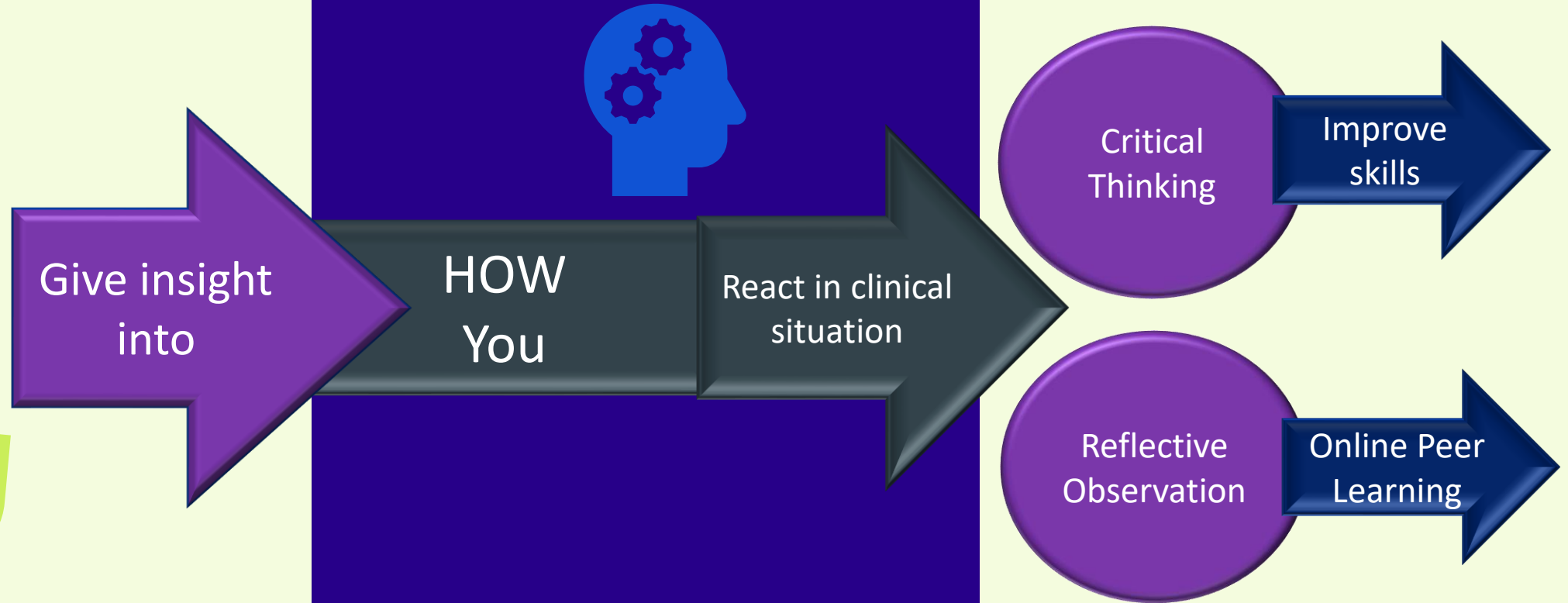
<https://elearn.imu.edu.my/mod/scorm/view.php?id=380627>



Click to start

INNOVATION

Students
ROLEPLAY
in
VMC



Practicality & Usefulness



Students PRP- can act as a patient



Junior faculty can learn as the case is recorded and converted into interactive virtual scenarios- SCORM (Sharable Content Object Reference Model)

Practicality & Usefulness

Traumatic Hip Dislocation

History

Examination

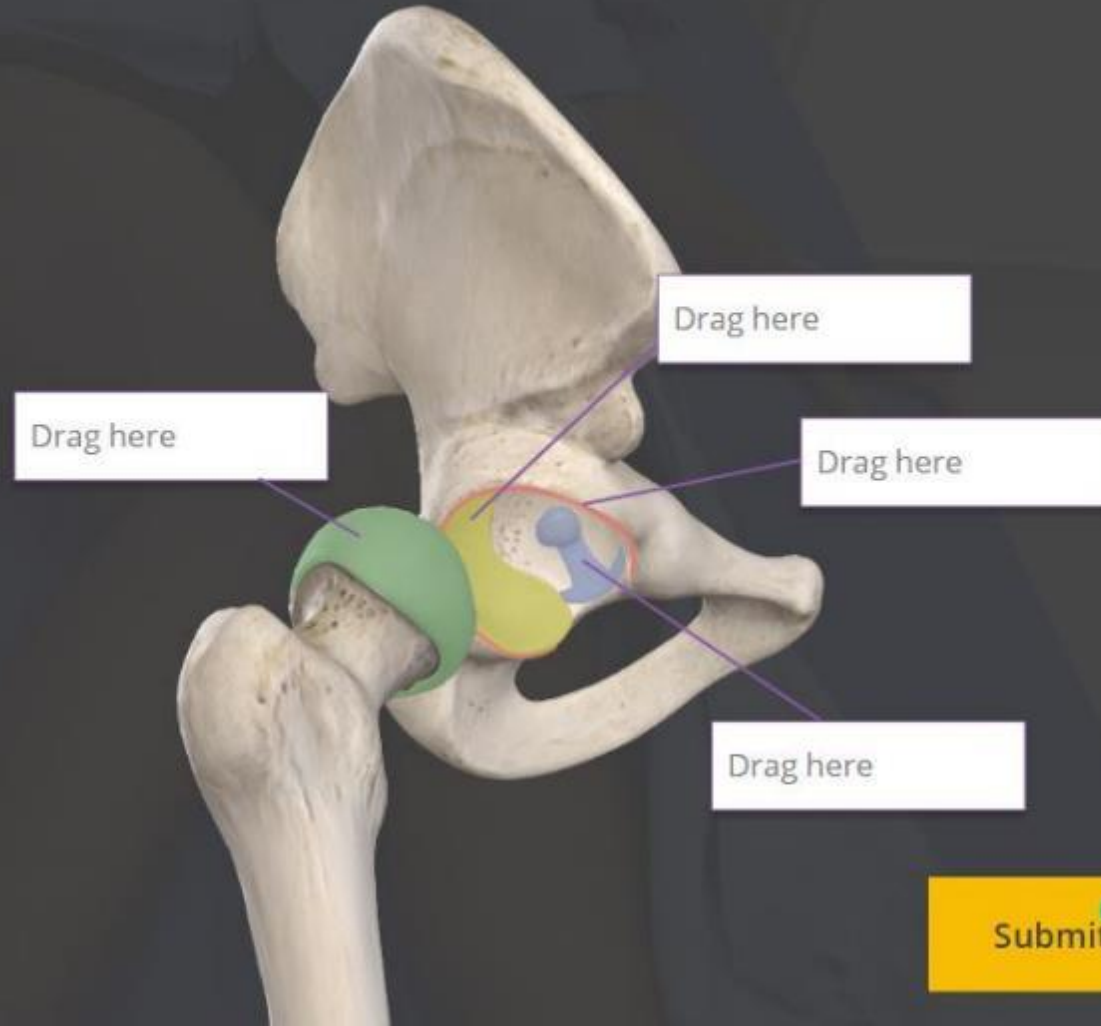
Diagnosis

Treatment

Finish

Question | Anatomy

Please select correct response and drag to the corresponding box



Answers:

Ligamentum teres of femoral head

Acetabular labrum

Acetabulum

Femoral head

Submit

ASSESSMENT OF BASIC SCIENCE KNOWLEDGE

Traumatic Hip Dislocation

History

Examination

Diagnosis

Treatment

Finish

Question | Anatomy

Please select correct response and drag to the corresponding box

Answers:

Ligamentum teres of femoral head

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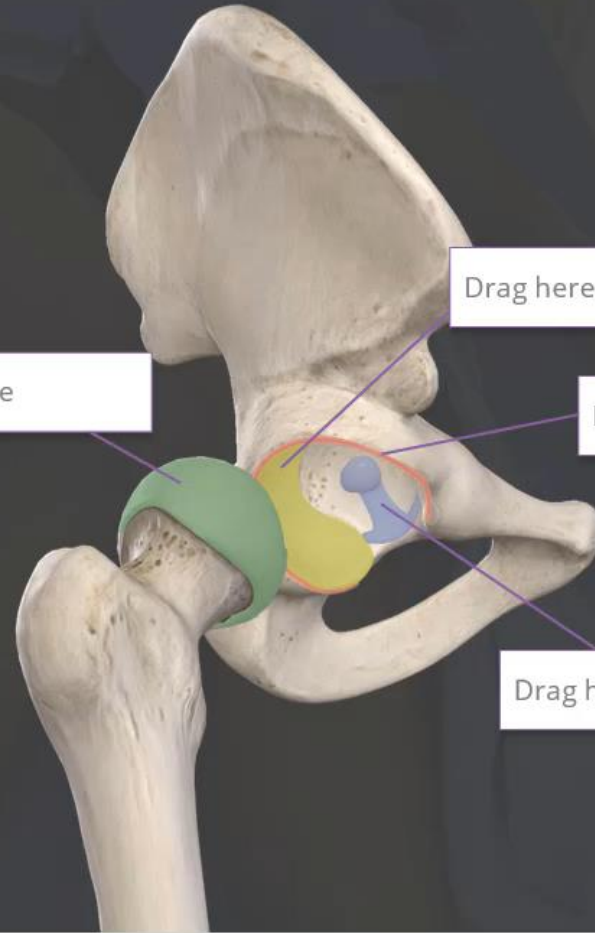
Drag here

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Submit



Perception of Student PRP

SAMPLE SIZE

A total of **141**
fourth-year
medical
undergraduates

survey

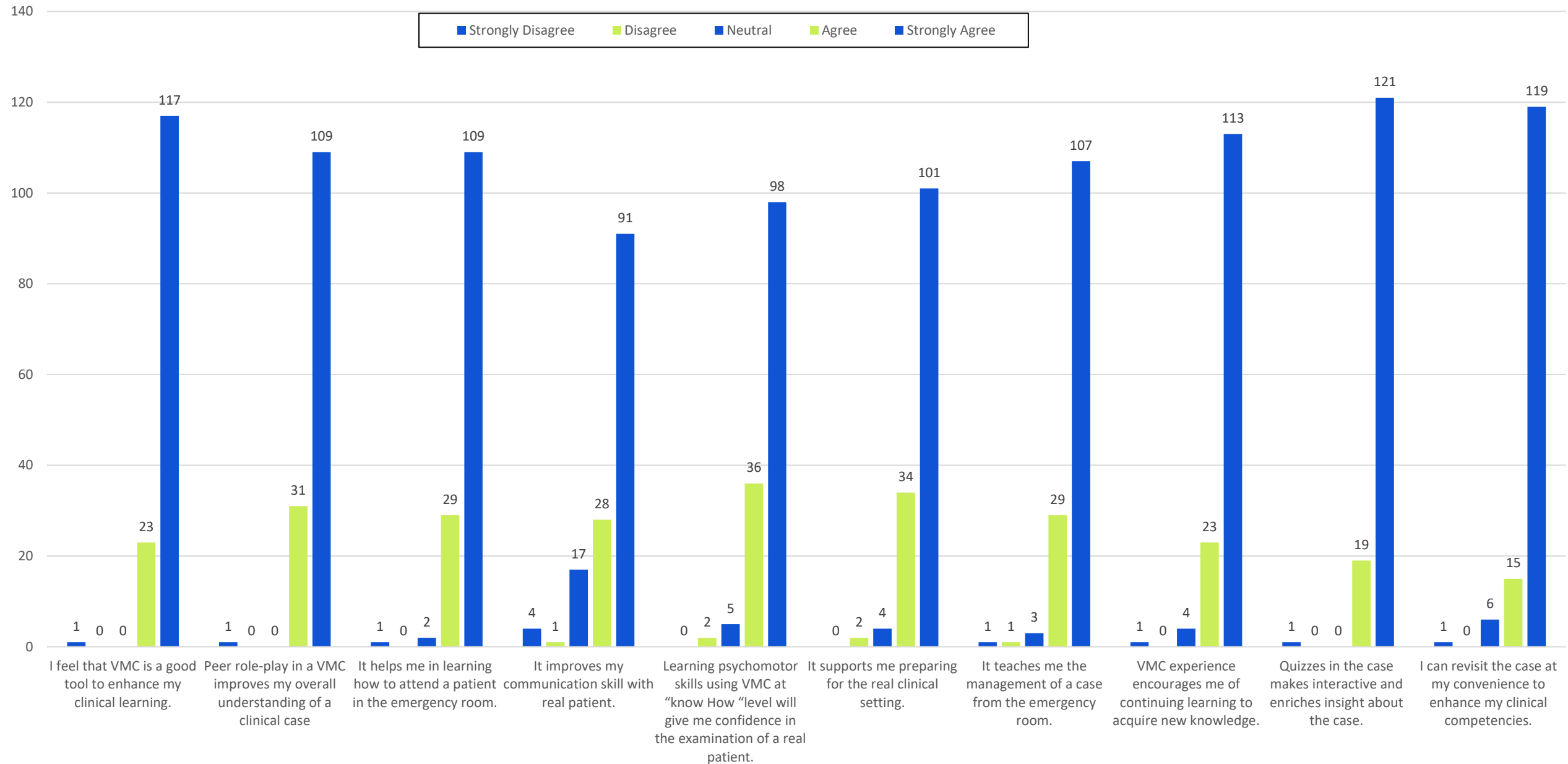
5-point
Likert
scale

perception of
virtual PRP

Cronbach's
Alpha value
0.932

PERCEPTION OF PEER-ROLE PLAY IN ORTHOPAEDIC TEACHING USING VIRTUAL MEDICAL CLINIC

141 responses



Result:



Results indicated that 99.3% of students perceived student PRP as a valuable tool for enhancing clinical learning and preparing for real clinical environments.



Additionally, 95% of students appreciated the convenience of being able to revisit the case as needed.

Take Home Message:

1. Student PRP is an innovative form of virtual teaching
2. Integrating Kolb's cycle could lead to greater engagement among participants.
3. It empowers students by allowing them to actively participate in the design and development of virtual clinical cases, thereby enhancing their learning.



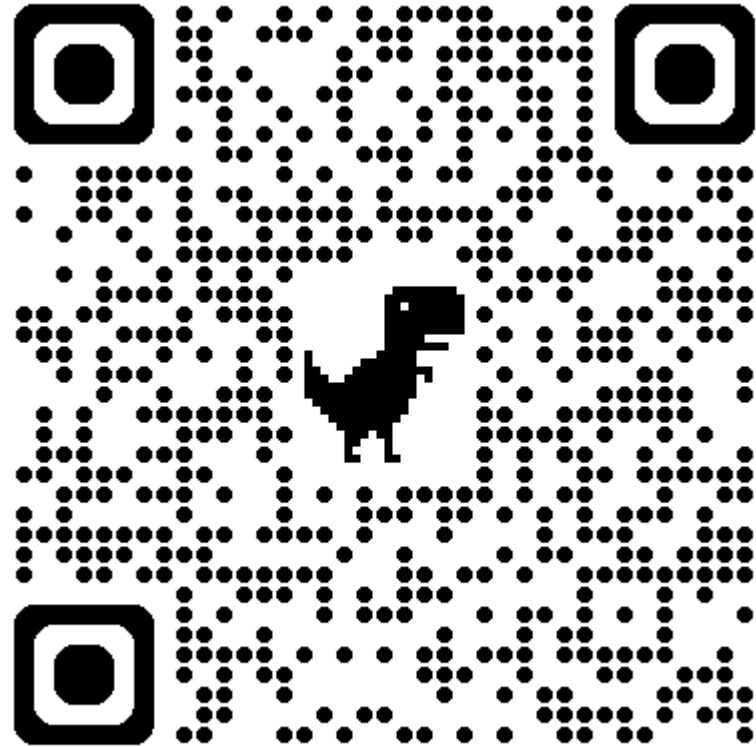
Take Home Message:

4. Peer-role play is an engaging and effective learning tool that can provide opportunities for reflection and self-evaluation.
5. It enhances communication, collaboration, and problem-solving skills among students.



Thank you.

<https://e-training.imu.edu.my/course/view.php?id=440>



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