

# National Quality Improvement Conference

## Enhancing Operating Theatre Newly Hired Nurses' Knowledge And Self-efficacy with Game-based Pre-training

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### Problem Statement

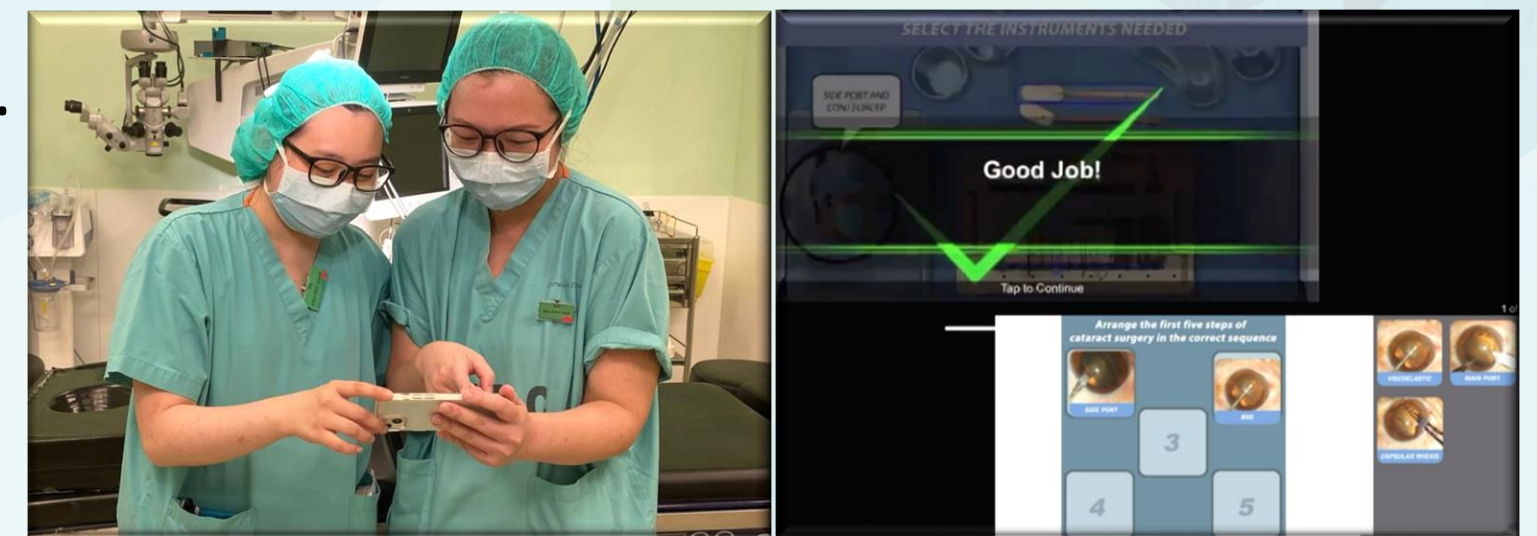
#### Singapore National Eye Centre (SNEC)

Operating Theatre (OT) is a fast paced, high patient turnover and highly specialized unique clinical field.

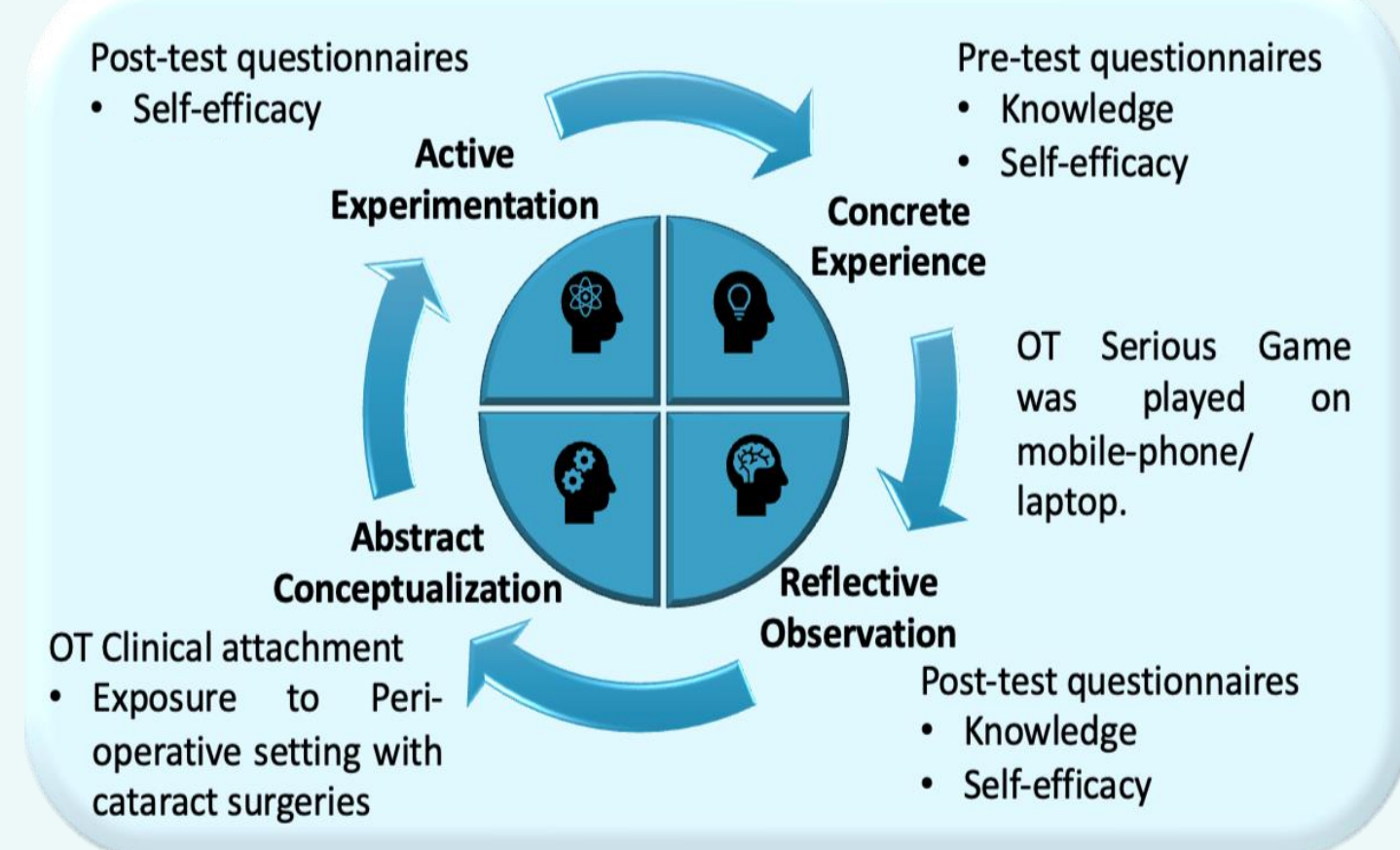
The **steep learning curve** posed challenges for newly hired nurses to acquire knowledge and skills especially when they do not have any prior OT experience.

### Potential Solutions

**Serious game** was incorporated into nurses' pre-orientation training allowing nurses to play multiple times to familiarize with the learning objectives set into the game.



#### Experiential Learning Cycle Theory (Kolb, 2014)



### Project Aim

To measure newly hired nurse's pre and post knowledge and their perception of self-efficacy scores after training.

### Lessons Learnt

#### Challenges

- Difficulty to toggle within the game

#### Strategies

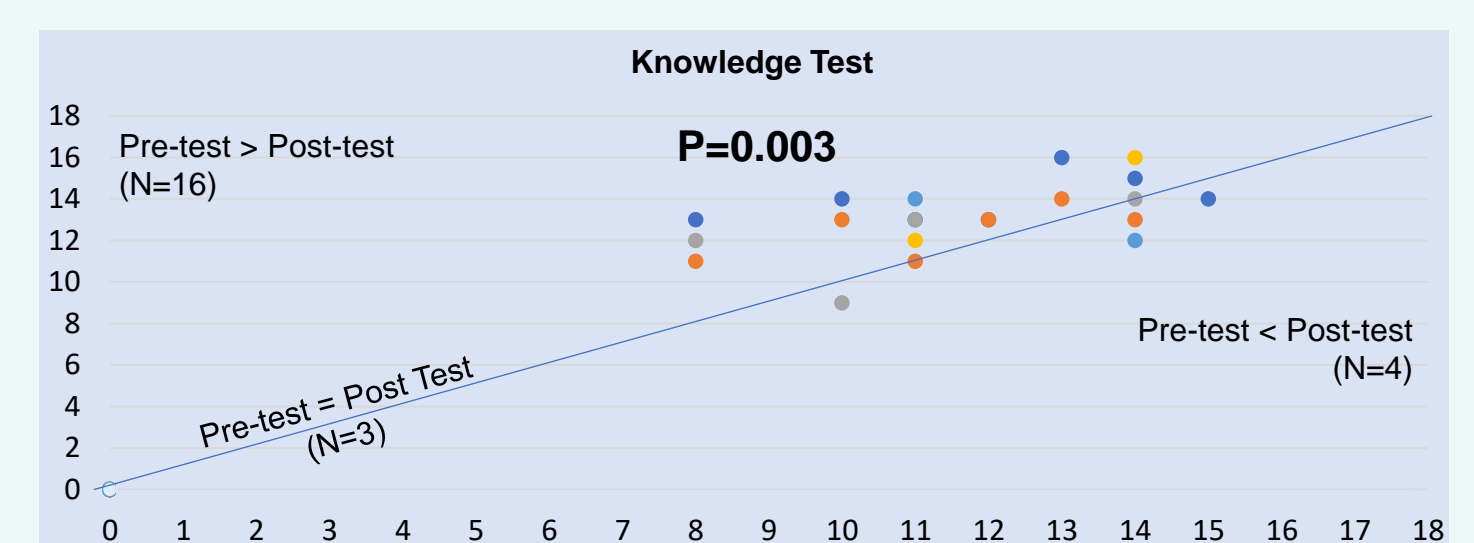
- Game introduction was incorporated into game and explanation was given when playing the game for the first time.

With serious gaming, results presented significant increase in knowledge and self efficacy before actual clinical postings.

### Outcomes & Impacts

#### Knowledge Test

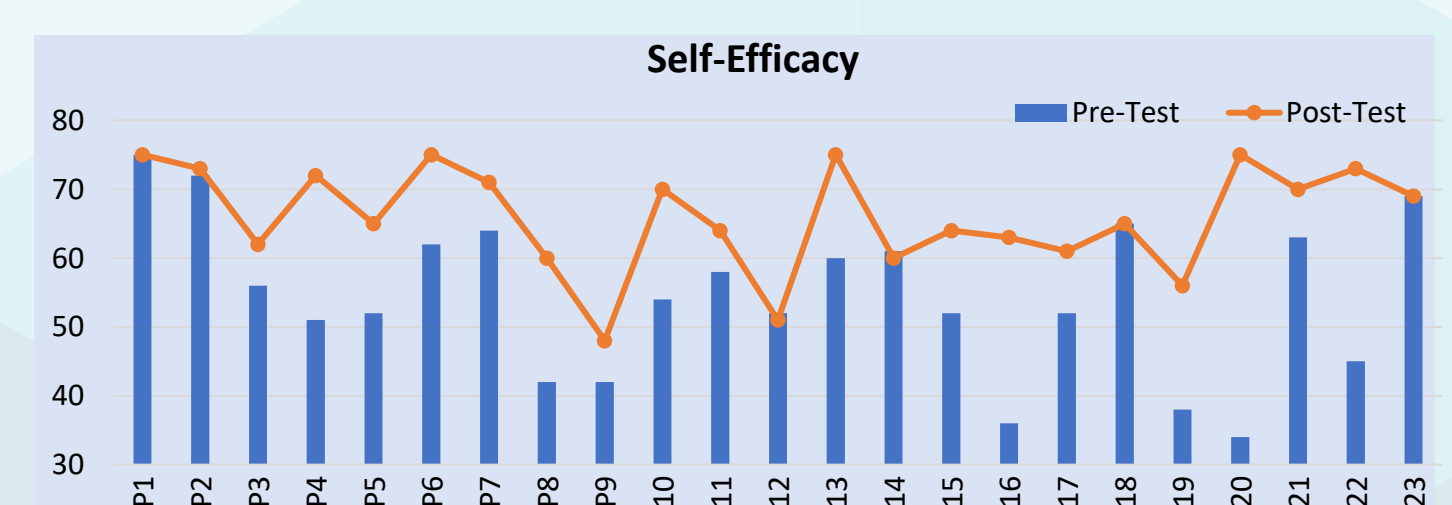
**P=0.003**



Wilcoxon signed rank test: **Statistically significant increase** between scores before & after game.

#### Perceived Self-Efficacy

**83%**



19 out of 23 participants showed **improvement**