

# Transforming Learning through Game-based for TeamSTEPPS: THE NEW NORMAL



**Human Resource** 

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### INTRODUCTION

The COVID-19 pandemic has transformed workplace learning and paved the way to leverage on cutting edge learning technologies, like game-based learning to engage remote workforce and create a sustainable ecosystem for learners. Towards this intent, SKH designed and implemented a gamebased learning for TeamSTEPPS to foster a culture of quality and patient safety.



**TeamSTEPPS Framework** Team Strategies & Tools to Enhance Performance & Patient Safety

### RESULTS

#### a) Learning Efficacy

Increase Knowledge & Skills:

Participants indicated that they have good understanding of TeamSTEPPS

**Transfer of Learning:** Participants indicated that they have high confidence in applying learning back 100% to work.

**Learner Satisfaction:** 

Participants indicated that they would recommend the game-based learning to their colleagues

### OBJECTIVE



To train staff in TeamSTEPPS tools through innovative gamebased learning to deliver mass training in an effective and efficient manner for safer patient care.

### METHODOLOGY

SKH leverages on various learning technologies to transform classroom-driven TeamSTEPPS programme to game-based learning.

**Neuroscience-based** learning design Workplace learning designed in a way that brain can best assimilate and **Virtual Reality** 

avatar Each learner is represented in the game with a 3D avatar, with the ability to see each avatars movement in the 3D virtual world in real time.

individually

represented by 3-D

**Innovative** Learning **Technologies** 

combine with game.

Game-based

learning

The individual learning

modules are designed in

the form of scenario-

based-learning. staff can

oractice the right way of

doing things in a safe

simulated game

environment

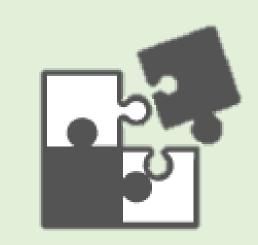
**Mobile learning** Learners can easily access Flipped classroom approach & to the TeamSTEPPS **Self-directed learning** programme using their personal mobile devices Through a series of curated game such as tablets and scenarios, healthcare workers smartphones in an ownundergo self-directed learning time-own-target manner

through game plays.

**Benefits of Game-Based Learning** 



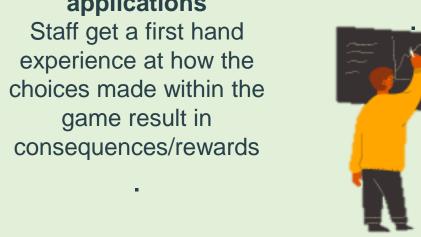
**Encourages On-the-Go** Learning Staff are allowed to learn at their own paced, anywhere and anytime



**Stimulates Creativity & Problem-Solving** Ability to use digital experience to develop new ideas and solve complex problems



Staff can feel a sense of accomplishment while advancing to different **Provides Opportunity** levels to see real-world applications Staff get a first hand



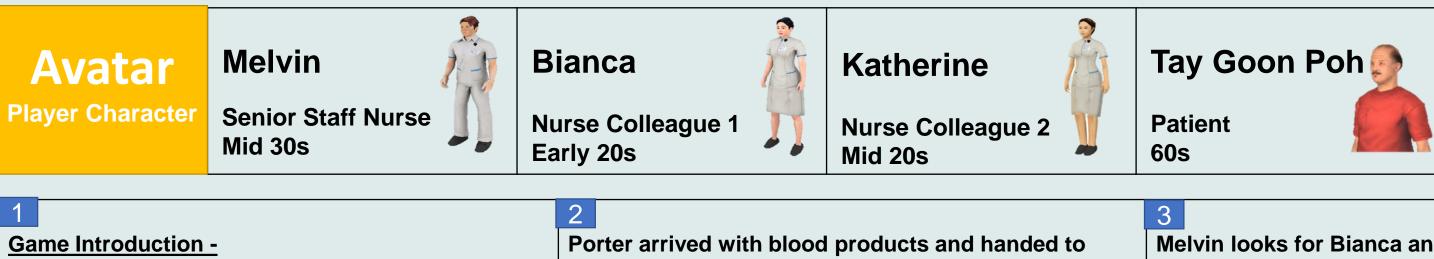
**Improves Retention of Learnt** Content Active learning provides better

to greater memory recall in staff

## focus and awareness which leads

### Case Study – Situation Monitoring

The Gamelet will provide a virtual environment of a ward setup. Gameplay starts with the player controlling a Senior Staff Nurse (SSN), involving the process overseeing several staff nurses.



actually feel much better

now!

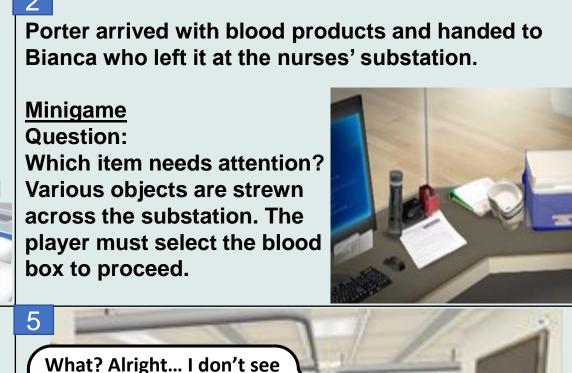
Mr Tay has a history of hypertension and diabetes mellitus. He was involved in a road traffic accident and sustained fractured pelvis. He had just completed ORIF pelvis and was sent to your ward. The Ortho team reviewed Mr Tay and initiated him ordered for multiple antibiotics, fluid challenge and 2 pints of blood transfusions.

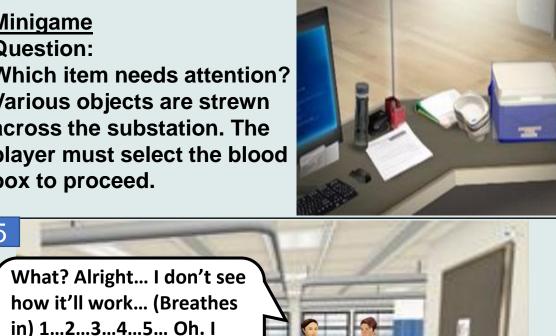
Melvin pulls Bianca aside and goes through Bianca's duties with her Mr. Tay... Mdm. Peng... Ms. Chan... I am uncomfortable about this situation... C'mon Bianca, pull yourself together!

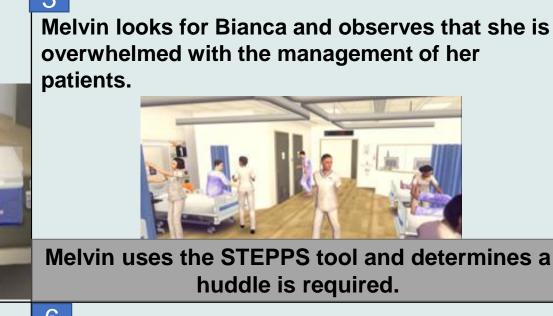
Concepts

**SKH Mindfulness Practise** 

Melvin calms her down and suggests "Mindful Bianca's using the CUS rule to tell us she needs **Breathing Exercise**".







Melvin recognises that Bianca is overloaded and tells her to focus on the blood transfusion first while he delegates some of the other work to other nurses. I'll be happy to help.

**Tools and Techniques TeamSTEPPS**  I am Concerned I am **U**ncomfortable This is a **S**afety Issue **(CUS)** Two-Challenge Rule Situation Monitoring SKH's Mindfulness Values Presence Patience

Kindness

Mindful Breathing Exercise



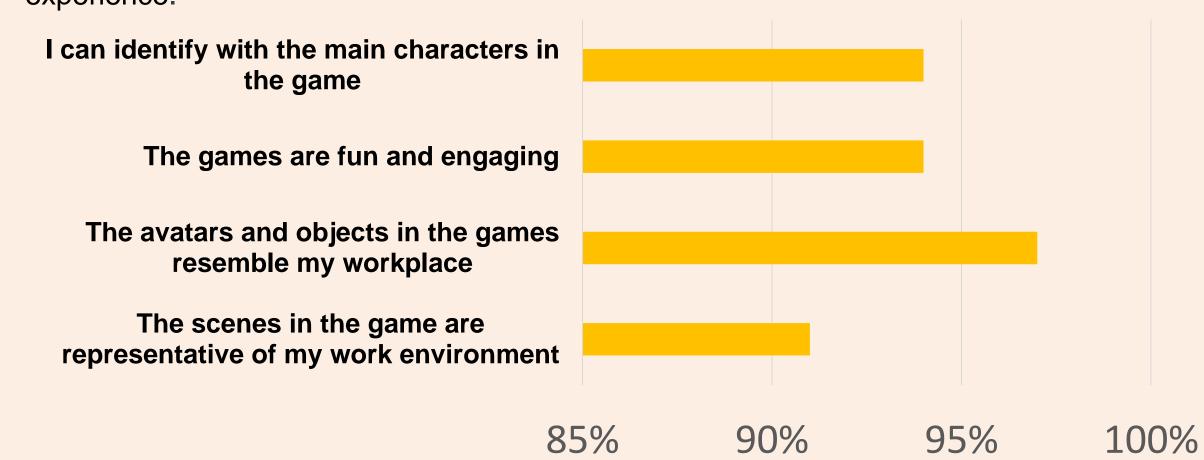
### Classroom Learning

#### **Game-based Learning**

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80%		80%	Good Coverage of TeamSTEPPS content through gaming	100%
		40%	TeamSTEPPS materials are effectively presented via gaming	100%
		60%	Learning engagements are equally effective through gaming	97%
		50%	Appropriate to use gaming to teach TeamSTEPPS	100%
		12%	Gaming setup instructions are easy to understand and follow	88%

### b) Positive Gaming Experience

More than 90% of the participants indicated moderate or high on their gaming experience.



### c) Positive Financial Outcome

Online learning offers flexibility which make it easier for our staff to attend training based on their availabilities.

Time and Manpower Cost Savings for both Trainer and Staff.

90% time savings on training for Staff ...



57% manpower cost savings for Staff



90% time savings for Trainer



95% manpower cost savings for Trainer



### CONCLUSION

The adoption of innovative learning technologies through game-based learning has been a strategic differentiator in enabling staff to learn, unlearn, and relearn in this new normal.



\* TeamSTEPPS™ programme is developed by Agency for Healthcare Research and Quality (AHRQ) in US