Project Title

Streamlining the Process of Competency Assessment in Major Operating Theater

Project Lead and Members

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Organisation(s) Involved

Singapore General Hospital

Healthcare Family Group(s) Involved in this Project

Nursing, Ancillary Care

Applicable Specialty or Discipline

Operating Theatre, Anaesthesiology, Sterile Supplies, Health Services Research Unit

Project Period

Start date: Sep 2020

Completed date: May 2023

Aim(s)

To reduce the time taken to conduct competency for nurses in Major Operating Theatre from 90 minutes to 60 minutes within the next six months. Allow doctors on afternoon ward rounds to attend to newly admitted patients from the ED.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Additional Information

Singapore Healthcare Management (SHM) Congress 2023 – Merit Prize (Human Resource category)

Project Category

Care & Process Redesign, Productivity, Manhour Saving, Cost Saving, Time Saving, Quality Improvement, Workflow Redesign

Training & Education, Assessment, Workplace Based Assessment

Keywords

Competency Assessment, Reduce Carbon Footprint

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# Streamlining the Process of Competency Assessment in Major Operating Theatre

Singapore General Hospital
SingHealth

Singapore Healthcare Management 2023

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1. Major Operating Theatre (MOT)   2. Anaesthetic Unit (AU)
3. Sterile Supplies Unit-SGH (SSU-SGH) 4. Health Services Research Unit (HSRU)

Introduction

Nurses and ancillary staff must undergo skills and knowledge assessments yearly, to ensure competency and safe perioperative care to surgical patients.
One competency completion for one staff requires 90mins. Five hundred MOT nurses have to complete a total of nine core competencies (via observation and demonstration) per financial year, taking approximately 13.5 hours. This is time consuming and labour-intensive. Additionally, there is a massive load of printed competency papers needing storage space.

Competency Checklist

Locked cupboards storing Training Diary and competencies
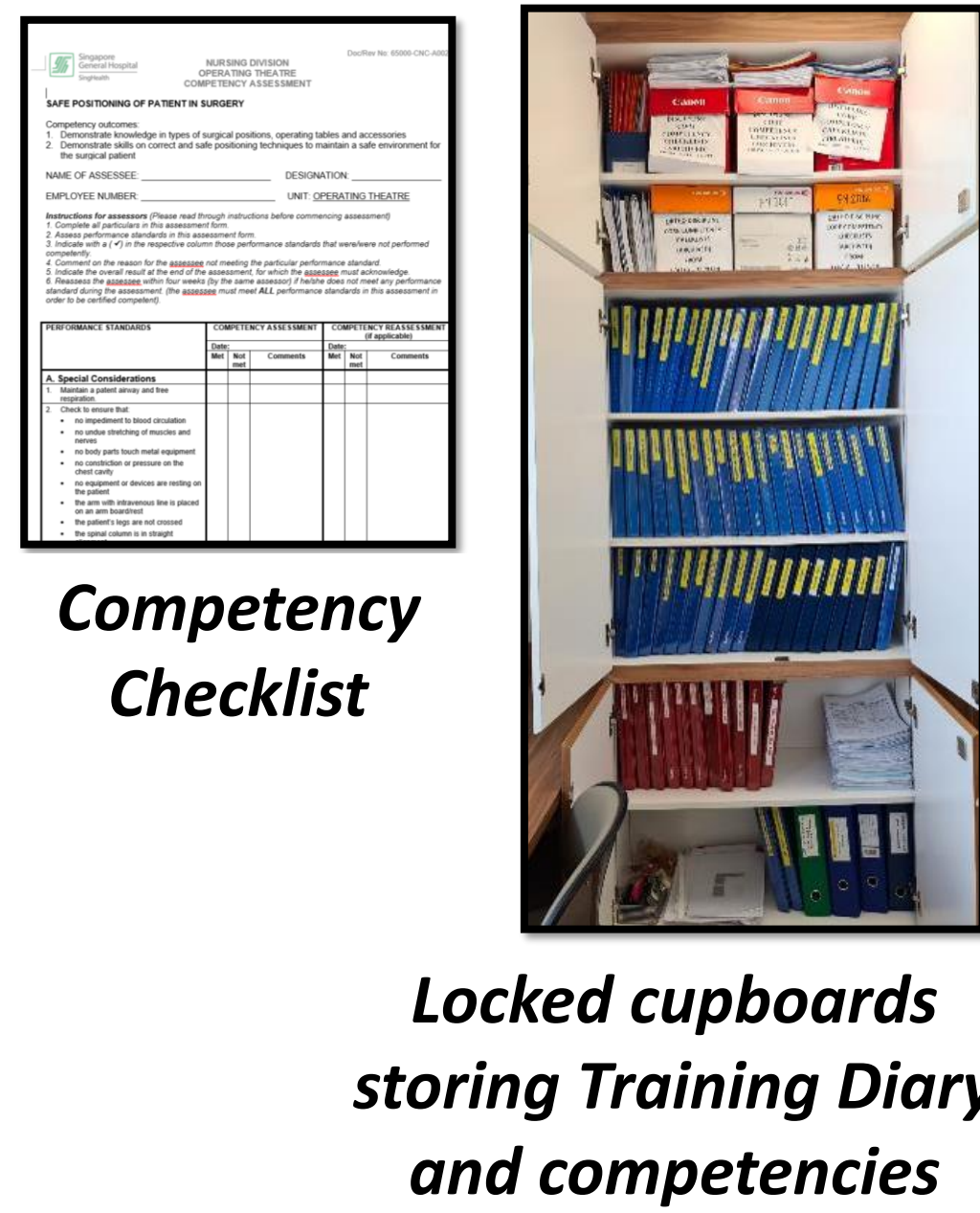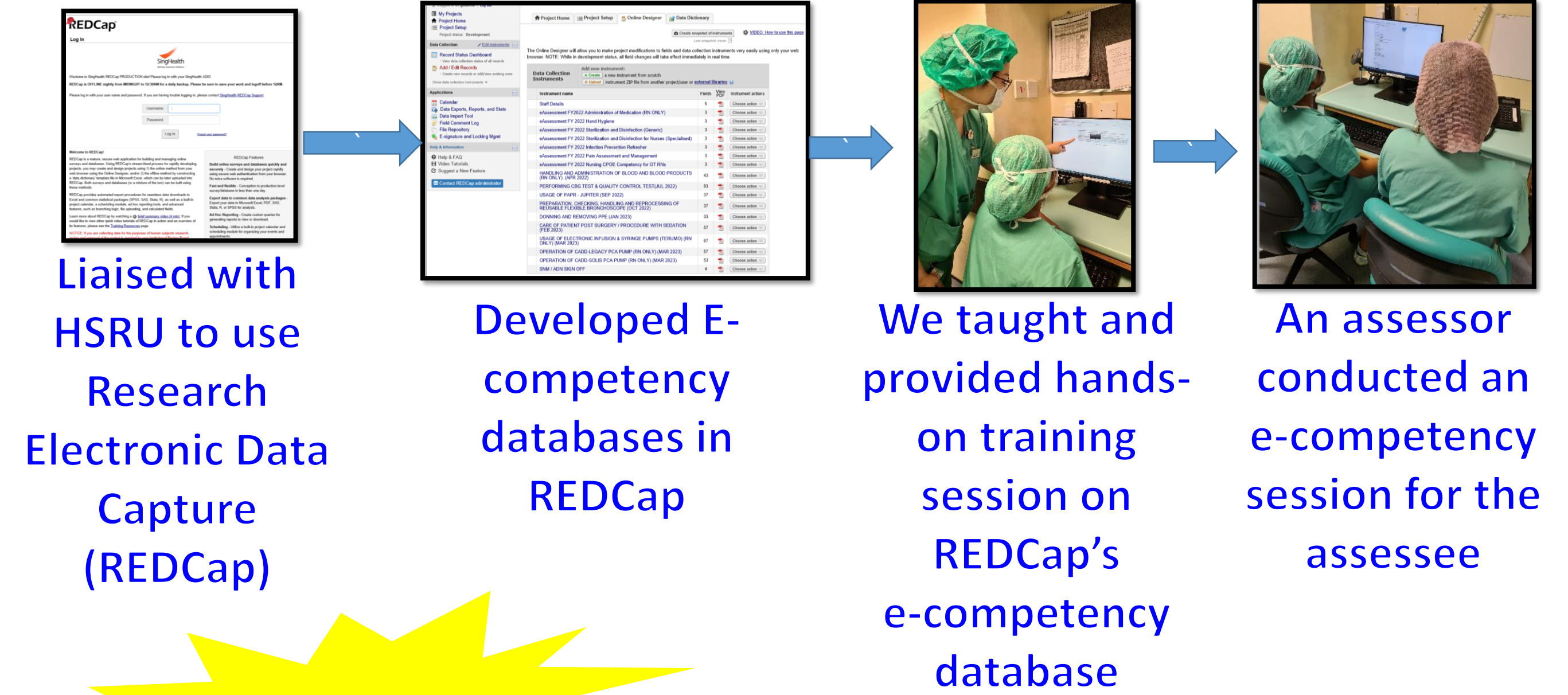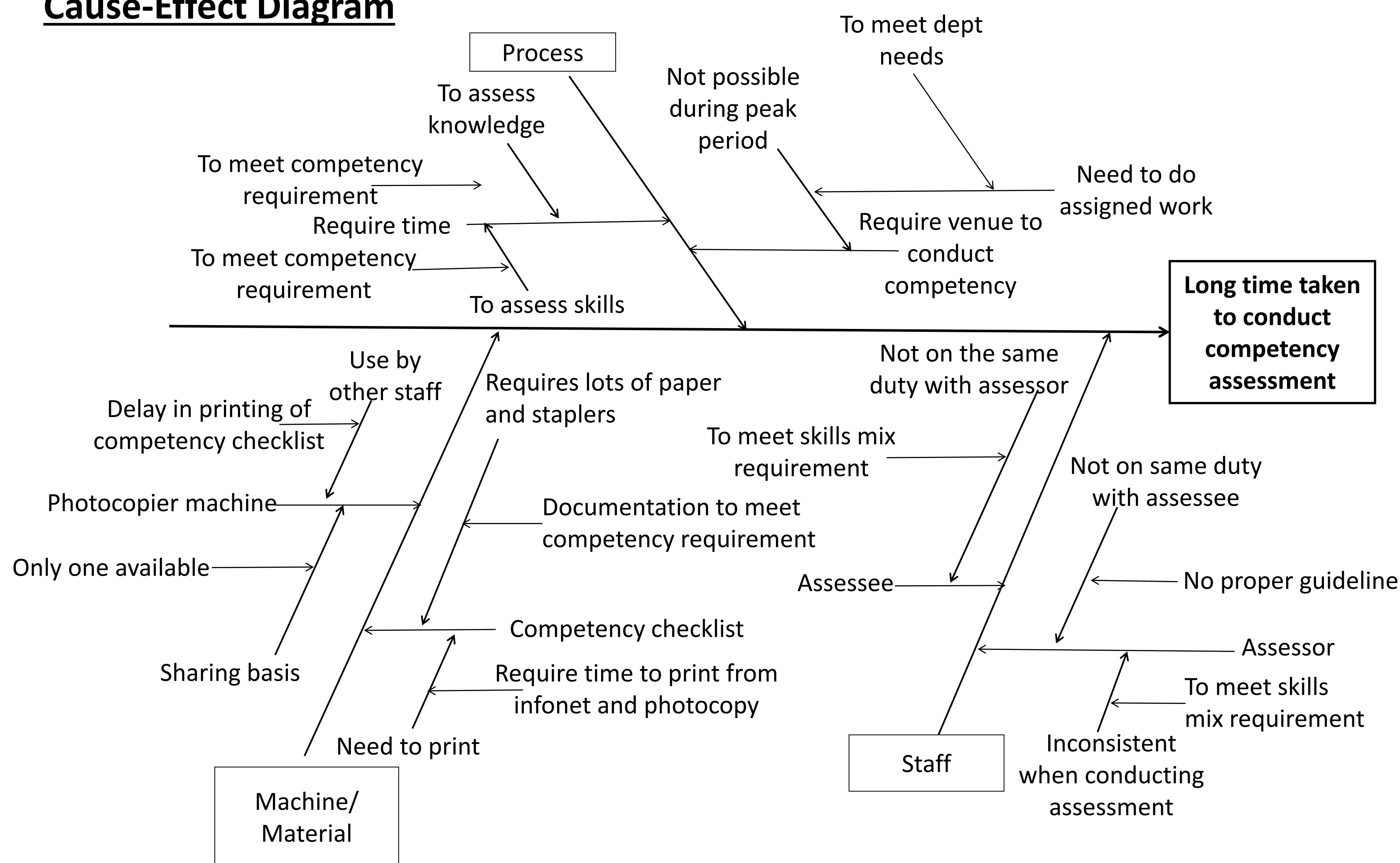
Objectives

To reduce the time taken to conduct competency for nurses in Major Operating Theatre from 90 minutes to 60 minutes within the next six months.
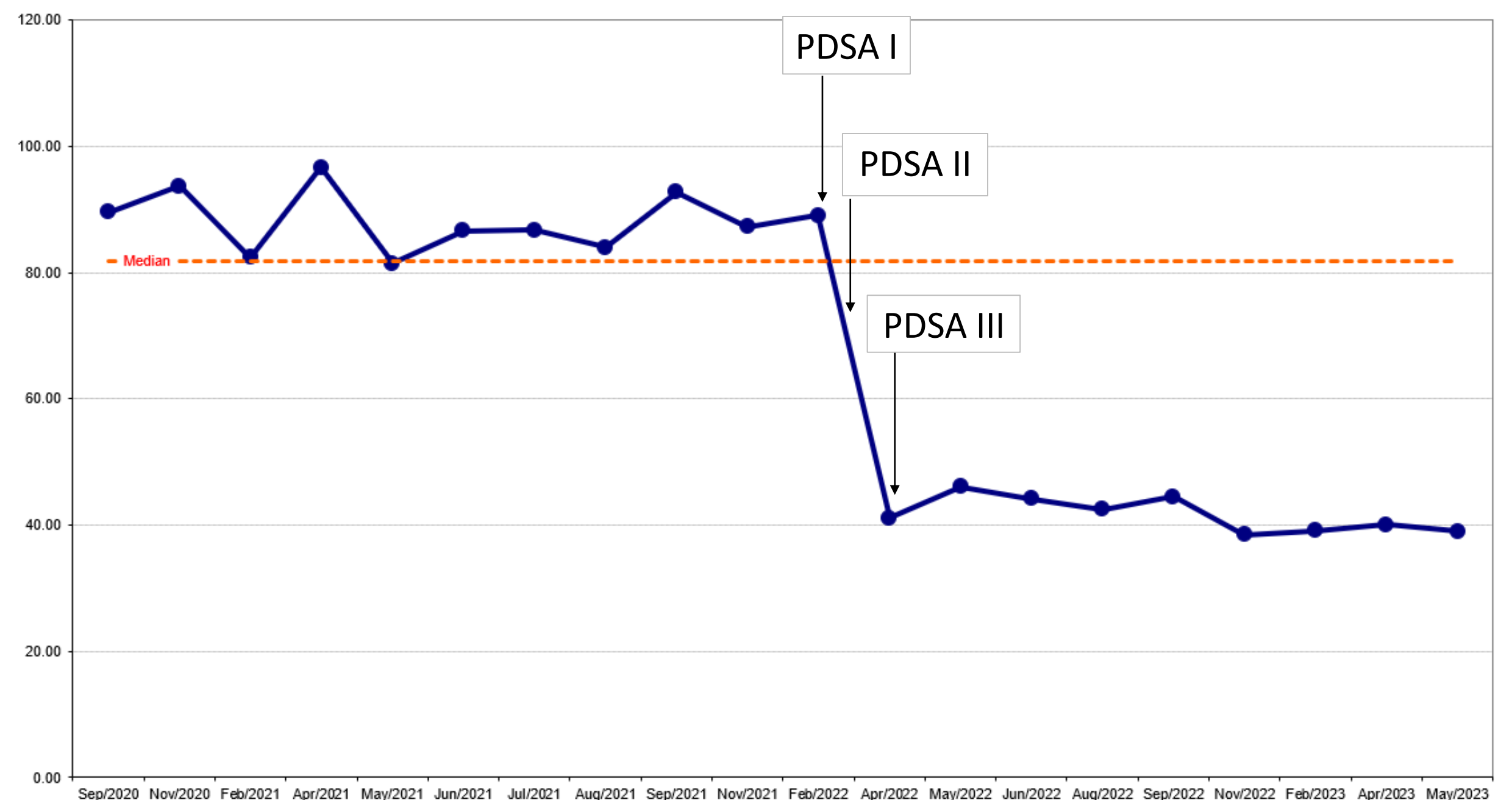
Root Cause Analysis

Cause-Effect Diagram

Implementations

PDSA I

Brainstormed for Competency Guidelines → Developed Competency Guidelines → Obtained approval from OT Services Senior Management → Conducted briefing sessions on guidelines for assessors and reviewers

PDSA II

Collated competencies related power-point slides → Uploaded to SGH Infopedia → Linked to MOT Orientation, enabling easy access for self-directed learning → Staff perform self-directed learning

PDSA III

Liaised with HSRU to use Research Electronic Data Capture (REDCap) → Developed E-competency databases in REDCap → We taught and provided hands-on training session on REDCap's e-competency database → An assessor conducted an e-competency session for the assessee

Results

Average time taken for RN to complete a competency

Note: Competencies are not scheduled for January(2021,2022,2023), March(2021,2022,2023), July(2021,2022), October(2021,2022) and December(2021,2022).

Time taken to conduct competency assessment has been reduced to 41.47 mins. We have met our project target.
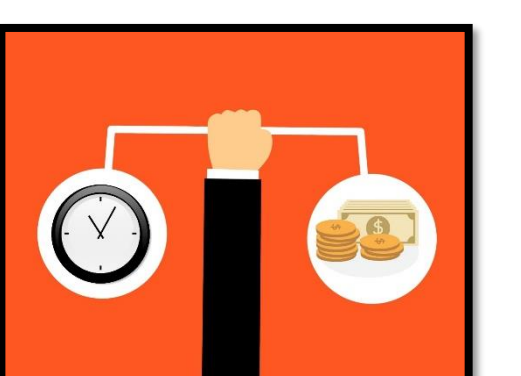
Tangible Benefits

Manpower:
✓ Time savings for one staff per year = **373.23 mins**.
✓ Manpower cost savings = **$246.33/year.**
✓ Projected (based on 500 nurses) Time Savings = **186615 minutes**
  Total Manpower Cost Savings = **$123,165.90/year.**

Consumables Cost Savings:
38 pieces of papers/staff; **19000** pieces of papers/500 staff.
Total cost savings of **$256.88**

Intangible Benefits

✓ More time for patient care.
✓ Competency checklists using Redcap documentation are easily available via desktop computers and laptops.
Additionally, savings in resources such as printer toner and stationery as no printing of competencies. Also, storage space to hold these competencies are not required and can be used for other purposes.
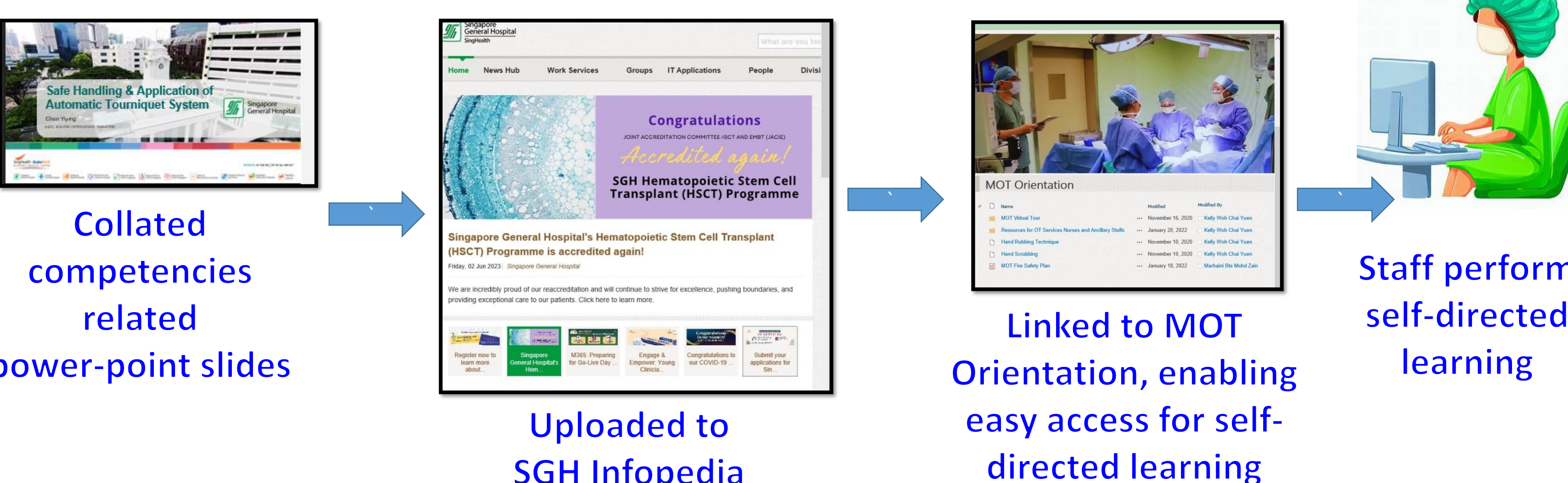
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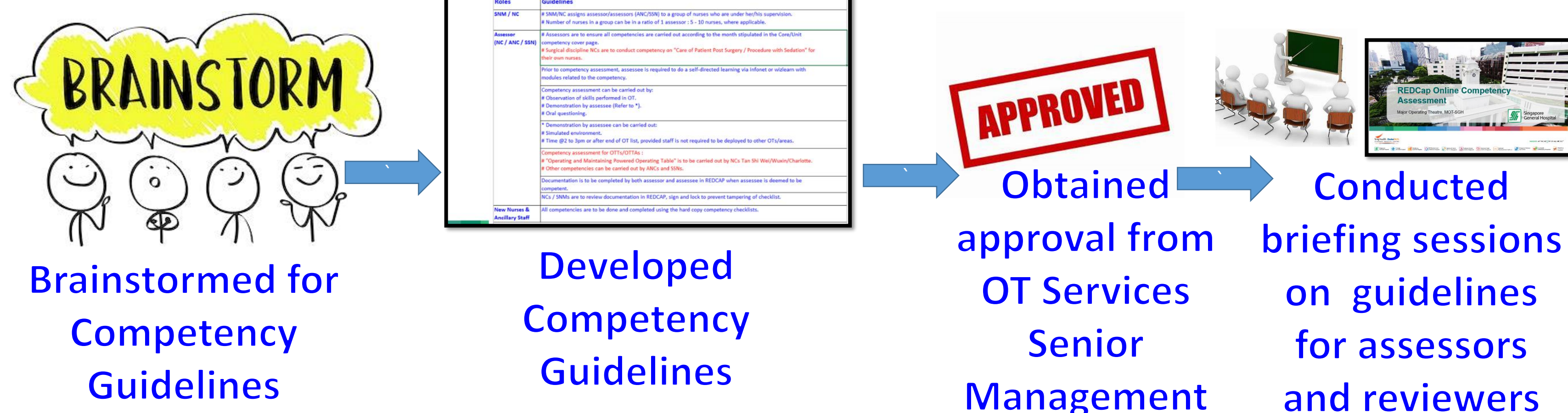
Sustainability Plans

Team members continue to monitor and update the REDCap. This program enables tracking and monitoring of staff competencies. Prompt action can be taken and reminders to MOT nurses and supervisors during monthly meeting.

Conclusion

This project helps to meet SGH's quality priorities of professionalism by doing our job to the best of our ability and doing our best as a team. It also promotes efficiency by making full use of resources to improve our processes and outcomes.
In the process, lots of papers saved, meeting our hospital and nation's green initiatives to prevent wastage, reduce carbon footprint and protect the global environment.
We shared this initiative and helped nurses in Ambulatory Surgery and Urology OTs in streamlining their competency assessment.
Now, together with HSRU, we are facilitating nurses from the Ambulatory Endoscopy Centre (AEC), Inpatient and Lung Endoscopy Centre (ILEC), to develop their competency databases in REDcap.