

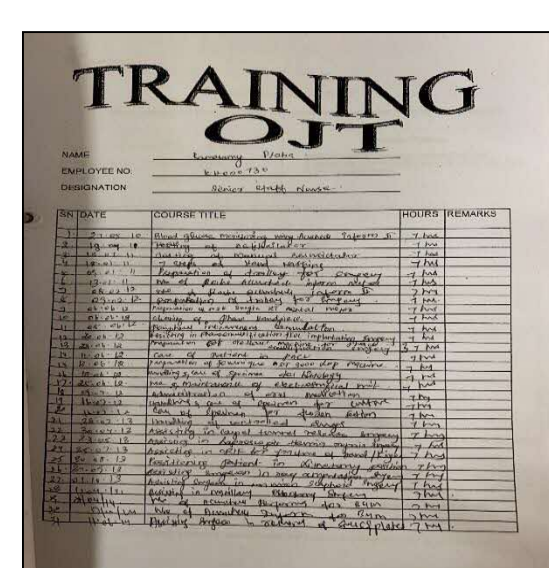
# E-TRAIN – Electronic -Training Requirement and Accreditation Input for Nursing

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## Background and Aims

An electronic competency assessment and training record platform will ensure that all employees receive adequate practical and theoretical training to meet the demands of the profession and industry. However, these development programs are often not documented effectively. The team explored a customised program. They aimed to **organize and automate** DSC training record system by automating records capturing, application and approval process by leveraging on IT technology.

NO	DATE	TITLE	TOPIC	INSTRUCTOR	NO. OF STAFF	NO. OF STAFF	NO. OF STAFF	NO. OF STAFF	NO. OF STAFF
13	20.05.18	1700-03094	Online Learning	Mr. Yeh	1	1	1	1	1
14	20.05.18	1700-03094	OTF Training for Maintenance & Day Surgery Center	Dr. Yeh	1	1	1	1	1
15	20.05.18	1700-03094	New Staff	Mr. Yeh	1	1	1	1	1
16	20.05.18	1700-03094	OTF Pre-Operative Care (Pre-Op) for Day Surgery Center	Dr. Yeh	1	1	1	1	1
17	20.05.18	1700-03094	OTF Pre-Operative Care (Pre-Op) for Day Surgery Center	Dr. Yeh	1	1	1	1	1
18	20.05.18	1700-03094	OTF Pre-Operative Care (Pre-Op) for Day Surgery Center	Dr. Yeh	1	1	1	1	1
19	20.05.18	1700-03094	OTF Pre-Operative Care (Pre-Op) for Day Surgery Center	Dr. Yeh	1	1	1	1	1
20	20.05.18	1700-03094	OTF Pre-Operative Care (Pre-Op) for Day Surgery Center	Dr. Yeh	1	1	1	1	1



(Monthly Summary and Manual Training Records)

(Staff Training Components)

**As Is:** Each staff's personal file contains past training experiences. When staff attends training, the details are recorded manually. Training hours and places are calculated manually on a monthly basis.

**To-Be:** Staff training management system to be re-organized and automated.

## Methodology

The team had focused group discussions. Using the **Affinity Diagram**, the possibilities, advantages and downside of the E-TRAIN system were outlined.

Traditional Training management system	E-TRAIN	Implications
<ul style="list-style-type: none"> <li>Fragmented Training Records</li> <li>Records are not consolidated</li> <li>Hard copies, difficult to trace when needed information</li> <li>Need to obtain few signatures</li> <li>Submit hard copies are lost sometimes</li> </ul>	<ul style="list-style-type: none"> <li>One Stop management for all training records</li> <li>E-system is able to sync with HRD to obtain historical training information</li> <li>A summary can be provided at real time</li> <li>Paperless submission &amp; approval</li> </ul>	<ul style="list-style-type: none"> <li>Need further IT enhancement to ensure access is more secured</li> <li>Need to put in security enhancements for approval of higher level training - example external conferences</li> </ul>

(Focused group discussion with Affinity Diagram was done)

## Lean 6-sigma DMAIC approach:

**Define** - stakeholder's focused group discussion, collaborative leadership and influencing strategies to consolidate points for decision making. **Two main phases include**, (1) using the Affinity Diagram, outlined the possibilities, advantages and downside of the E-TRAIN system. (2) Adoption of the new training record system customized to meet the needs of the nursing teams in the department.

**Measure** the ground problems by quantifying the training record load, time required and costs involved. The team also gathered baseline data for further monitoring.

**Analyse** the gaps in the new workflow, organized facts, opinions and issues

## Sustainability and Follow-Up

**Sustainability Plan is sustained through 6-sigma approach**

**Process Standardization** for training system and recording methods

**Equipment Maintenance** - software operationally ready

**Standardized Operating Procedures** for training management system.

**Orientation Program:** supervised learning for all new nurses.

## Conclusion

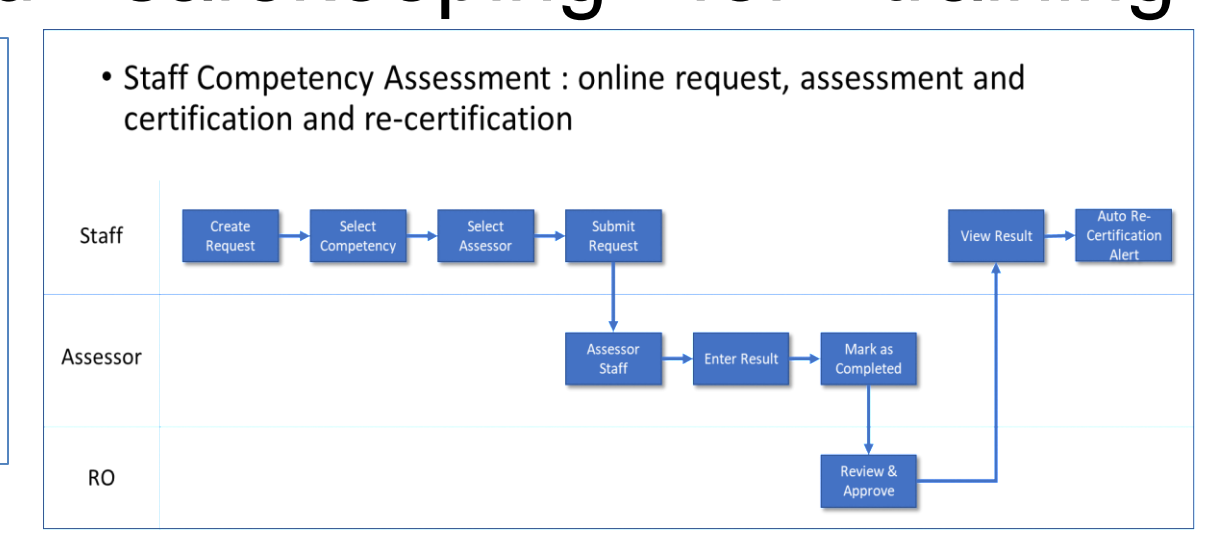
**E-TRAIN** is a systematic and organized training record management system, proven workable and a sustainable solution. In conclusion, the E-TRAIN is beneficial as it optimised resource utilization, increased staff productivity and reduced cost and improved safety, improved the quality of training records management, increased value for money and effective patient care and improved safe-keeping of professional knowledge and skills in the long run.

## Methodology cont'

**Improve** through, removing all hassle steps in the training records safe-keeping workflow and recording all training information and setting up approval-based system in E-TRAIN.

**Control** plan for sustainability - **Process Standardization, Training champions** to facilitate the new workflow, **Staff Orientation** and **Refresher Training, Mistake proofing** the process e.g. standardised record safekeeping for training

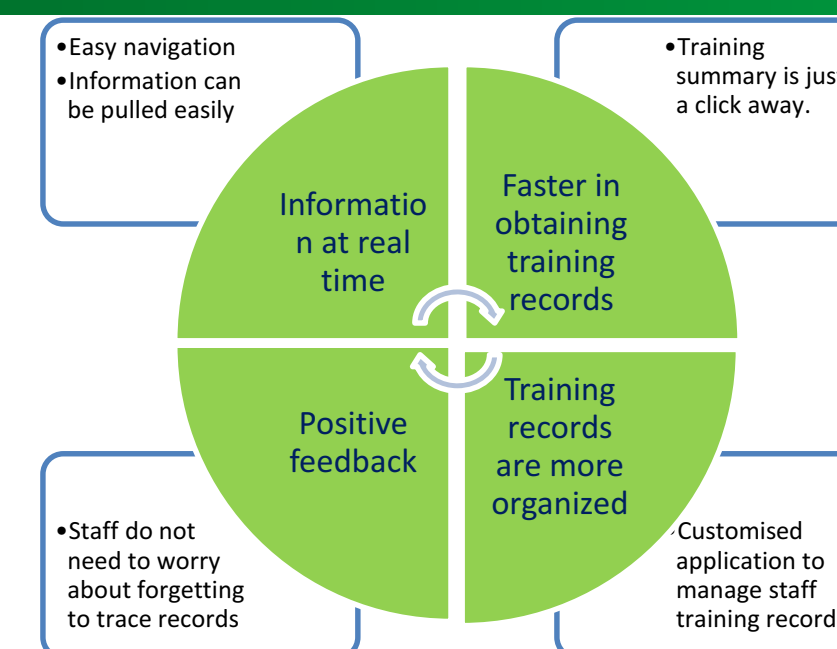
(Screenshots of E-Learn Results)



(Customised software capacity - Online Request and Assessment)

(Customised Software - Certification and Re-Certification)

## Results and Project Impact



**E-TRAIN is developed!**



**Green Savings is achieved**  
 ≥ 3750 paper sheets/ year for 75 staff, ≥ 7.6 reams of white paper are saved yearly!

## Cost Savings is achieved

Application	Cost
External Vendor	<b>\$5x00,000</b>
Internal Colleague	<b>\$50</b> cost incurred for a customized program



## Time Savings is achieved

Initiatives / Measurement and Impact	Hospital's savings	Patients' savings and care	Productivity
E-TRAIN	Much reduced time in retrieving information from hardcopy files and other different sources (reduced from hours to minutes).	Manpower is more focused on patient care as the <b>process is streamlined.</b>	Staffing situation is more concentrated and productive.

## Cost Avoidance is achieved

Initiatives / Measurement and Impact	Hospital's savings	Patients' savings and care	Productivity
E-TRAIN	High cost required to build the customised application is negated.	Operational cost is contained.	Maximise and effective use of operational cost by leveraging and expand usage of application.



**Change Methodology to follow up E-TRAIN**  
**Unfreeze:** For staff newly nominated to be trained we apply "unfreeze"  
**Change:** For existing staff, we encourage and provide continuous training support  
**Refreeze:** Continuous monitoring to close gaps