

Project Title

E-Train – Electronic – Training Requirement and Accreditation Input for Nursing

Project Lead and Members

Project Lead(s): Lai Foon Wan Anne, Nurse Manager

Project Members:

- Peter Leong, Senior Manager, Human Resource Development
- Alice Leong Foong Wah, Deputy Director, Nursing Peri-Ops
- Roshni, Nurse Clinician
- Ng Gek Ling, Nurse Clinician
- Praba, Nurse Clinician

Organisation(s) Involved

Khoo Teck Puat Hospital

Healthcare Family Group(s) Involved in this Project

Nursing

Aim(s)

To re-organised and automate staff training management system

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

Training record management is a major element of quality management and compliance of regulatory practices as well as staff safety. While administering training records are often viewed with a lower priority, the risk of - compliance challenges and unnecessary administrative costs are prone to happen without one. The lessons learnt here is to ensure compliance and competency around training record management system.

The automation had resulted in conveniences, improves staff productivity and bring on significant cost savings to the organization. If given the chance to re-do it again, the team will consider to merge the application with mobile application to create a convenient environment for users to access to learning materials easily and to fulfil the training gaps.

Conclusion

See poster appended/ below

Additional Information

The innovation started in 2019 and has been in active usage for three years. During the implementation, we have scaled it up from DSC to MOT and subsequently to the whole of KTPH.

The initiative was accepted for expansion as the traditional training records capturing for all departments are similar. The proposed innovation was introduced to MOT on a bigger scale in Jan 2021. Subsequently, the initiative expanded into other inpatient wards and SOC clinics. Discussions are in-progress for some other departments.

Project Category

Technology

Product Development, Commercialisation, Proof of Value

Keywords

Electronic Training Record, Nursing, Process Standardization

Name and Email of Project Contact Person(s)

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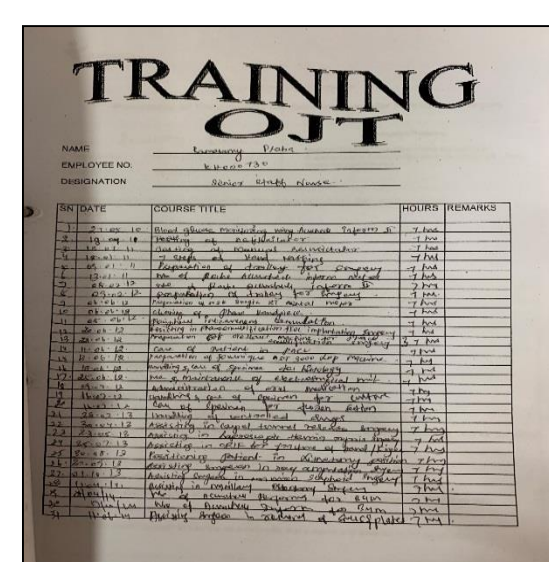
E-TRAIN – Electronic -Training Requirement and Accreditation Input for Nursing

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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.

IS	DATE	TIME	TOPIC	INSTRUCTOR	NO. OF STAFF	NO. OF CREDITS	STATUS
13	20.05.18	17:00-18:00	Domestic Law	Mr. Lawrence	1	30	1
14	20.05.18	18:00-19:00	OT - Working for Rehabilitation in the Surgical Context	Dr. Lawrence	1	30	1
15	20.05.18	17:00-18:00	Hand Care	Mr. Lawrence	1	30	1
16	20.05.18	17:00-18:00	OT - Packaging Unit - Top for Hair	Mr. Lawrence	1	30	1
17	20.05.18	17:00-18:00	OT - Change Dressing	Mr. Lawrence	1	30	1
18	20.05.18	17:00-18:00	OT - Patient and Family Engagement Strategies	Ms. Patricia Koh	3	40	1
19	20.05.18	17:00-18:00	OT - Live Central Tapes (1:30) (Open Surgery and Laparoscopy)	Mr. Lawrence	2	30	2
20	20.05.18	17:00-18:00	OT - Live Central Tapes (1:30) (Open Surgery and Laparoscopy)	Mr. Lawrence	2	30	2
21	20.05.18	17:00-18:00	OT - Live Central Tapes (1:30) (Open Surgery and Laparoscopy)	Mr. Lawrence	2	30	2
22	20.05.18	17:00-18:00	OT - Live Central Tapes (1:30) (Open Surgery and Laparoscopy)	Mr. Lawrence	2	30	2
23	20.05.18	17:00-18:00	OT - Live Central Tapes (1:30) (Open Surgery and Laparoscopy)	Mr. Lawrence	2	30	2
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(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"> Fragmented Training Records Records are not consolidated Hard copies, difficult to trace when needed information Need to obtain few signatures Submit hard copies are lost sometimes 	<ul style="list-style-type: none"> One Stop management for all training records E-system is able to sync with HRD to obtain historical training information A summary can be provided at real time Paperless submission & approval 	<ul style="list-style-type: none"> Need further IT enhancement to ensure access is more secured Need to put in security enhancements for approval of higher level training - example external conferences

(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.



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

Conclusion

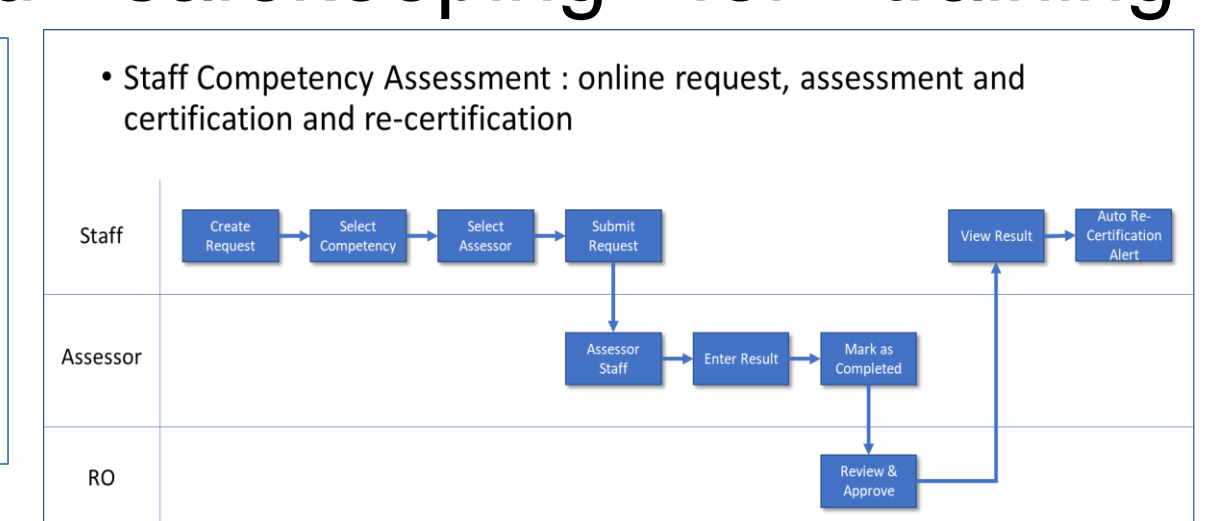
E-TRAIN is a systematic and organized training record management system, proven workable and a sustainable solution. In conclusion, the E-TRAIN is beneficial as it optimised resource utilization, increased staff productivity and reduced cost and improved safety, improved the quality of training records 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

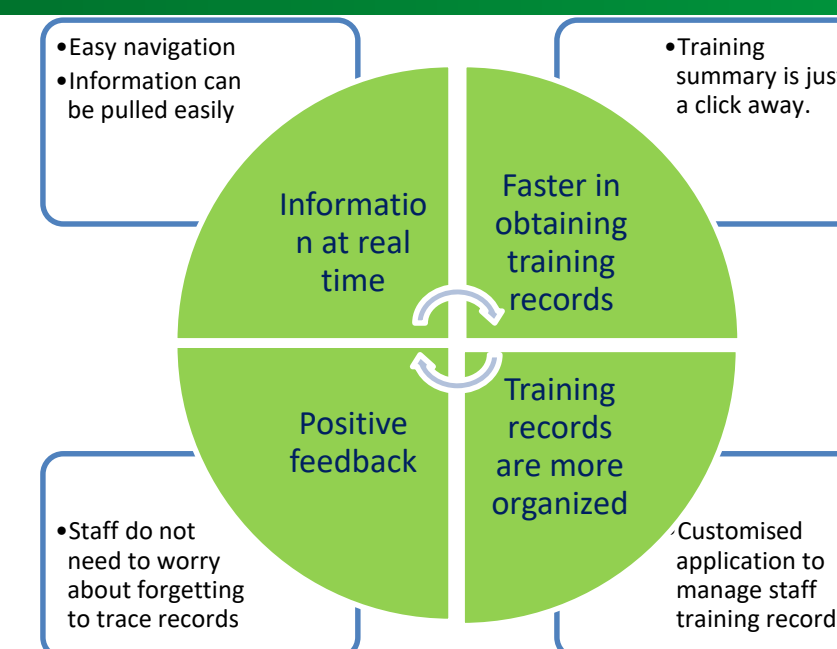
(Screenshots of E-Learn Results)



(Customised software capacity - Online Request and Assessment)

(Customised Software - Certification and Re-Certification)

Results and Project Impact



E-TRAIN is developed!

Save the Earth!

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

Time saved = 31.25 hours/month

Cost Savings is achieved

Application	Cost
External Vendor	\$5x00,000 (Estimated 5-6 figure for a basic program)
Internal Colleague	\$50 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 process is streamlined.	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.