Together, We Innovate I Improve I Educate

Brought to you by:
SingHealth Duke-NUS Institute for Patient Safety and Quality

Conventionally, QI knowledge is taught in a conducive classroom setting. *The COVID-19 crisis has triggered the need for educators around the world to rethink instructional choices to sustain education amid a pandemic that restricts social contacts, in view of safe distancing measures. The norm of active learning in a classroom setting is instantly disrupted.*

IPSQ QI Faculty re-designed the AM-EPIC Blended QI Workshop to substitute face-to-face learning through adopting the instructional systems design framework to Analyze, Design, Develop, Implement, and Evaluate (ADDIE Model).

5 TIPS to implement an effective blended and virtual learning in QI education

Figure 1: Blended Learning QI Curriculum

Tip 1: Analyze
Before starting on any instructional design, it is necessary to identify the training needs and whether the instructional design can address these needs. In this COVID-19 situation, we identify two needs:
1. To ensure delivery of QI training is possible despite safe distancing challenges
2. To substitute face-to-face QI training

Tip 2: Design
When reviewing the instructional strategies, here are some considerations:
* *What are the tangible aims of the programme, and specific goals for each topic?*
* *What platform/ environment is most appropriate to deliver the programme?*
* *How will the selected platform impact how the training materials will look, and be delivered to the learner without compromising the learning outcomes?*

In this experience, the IPSQ QI Faculty adopted the video conferencing platform to substitute classroom teaching, as it provides for live viewing, interactions, and group discussion functions for activity-based learning. The functionality of the platform was also tested with prototypes e.g. teaching notes, interactive quizzes, polls, exercises, group discussions. The aim is to select the functions that could best achieve the intended learning goals for each topic as well as the overall learning goals.

Tip 3: Develop
The training materials were put together and tested on multiple trial runs among the faculty, reviewed and revised before the implementation of the workshop to the intended target audience. Content that could be attained through pre-reading were provided to the learners before the virtual workshop. The objective is to have the virtual teaching dedicated to active learning.

Tip 4: Implement
Roll out the pilot run to the intended target audience. Keep the intended target group smaller than the usual run if monitoring of the impact could be better managed with a smaller group. In advance, arrange for testing of learning platforms and systems. Some of the factors to consider are:
* *Do you need to do a connection test prior to workshop proper?*
* *What kind of technical issues the learners may face and the support they will need?*
* *Factor in pockets of short breaks in between topics to allow for stretching/ergonomics exercises?*
* *Do you need music during activities?*

It is recommended for faculty to call on learners from time to time as a check-in if they are paying attention. Where possible, have the learners present after their activities tends to motivate them to be involved. It is important to clearly explain the aim of each activity and how it is tailored to meet the overall learning objectives, so that learners will engage positively.
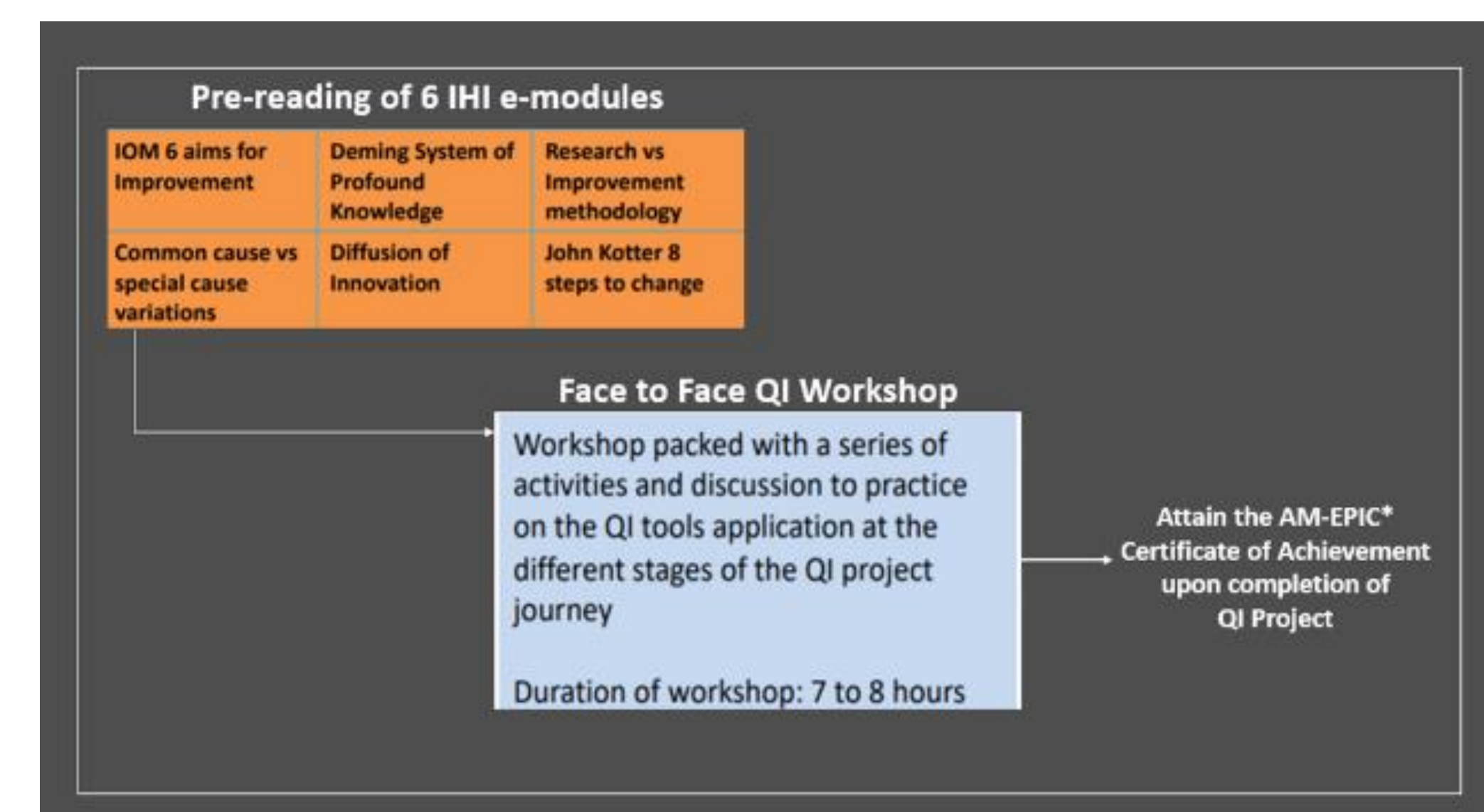
Tip 5: Evaluate
It is important to get feedback from the learners to gain insights on their expectations. Besides the usual way of collecting data on quizzes and workshop feedback, it is also important to conduct an analysis to understand if there is an improvement and if the improvement is significant.

Other Tips: Communication and engagement with the learners (pre, during and post)
The approach to the virtual workshop has to be well communicated to the learners as this might be a new instructional mode to most of them. Below is an overview of the process and the key considerations during the respective stages:

Stage	What IPSQ does at each stage?
Pre-registration	Communication via • AM EPIC Website • Bulletins
Registration	• Registration Process - Gather information on learner's profile and knowledge & experience in QI
Pre-workshop	A Workshop package will be sent to the learners which consists of : • Access to IHI e-modules • Zoom User guides • Workshop Activity template • e-Handouts
During workshop	• Warm welcome to the learners • Orientation to Zoom platform and etiquettes of virtual workshop • Didactics • Activity and Sharing (both ways) • Engagement through polling questions after each topic • Feedback Collection
Post workshop	A Post Workshop package will be sent to the learners which consists of : • QI Resources • Support channels • Recognition

The pandemic has provided us an opportunity to reimagine education around the pillars of access and affordability with the myriad tools and techniques now at our disposal. This new way of virtual workshop could be continued even after the pandemic ends, to meet the needs of learners who are unable to travel to the training venue. *What makes QI training in Healthcare different?*

1. *For more information on mindfulness and self-care, please visit* https://www.singhealthdukenus.com.sg/ipsq/ithrive
2. *For more information on SCOPE, please visit* https://traumahealing.org/scope/#:~:text=SCOPE%20is%20the%20handy%20use,thru%20the%20various%20exercises.