



Singapore Healthcare Management 2017



IMPROVEMENT LAB
A HEALTHCARE FOCUSED IMPROVEMENT WORKSHOP SERIES

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Introduction

Improvement Lab is a bi-monthly initiative designed to generate awareness and interest in Quality Improvement (QI) through highly-accessible mini-presentations on specific areas of Improvement Science. Intended to dovetail with other QI trainings spearheaded by the Office of Improvement Science (OIS), the aim of the Improvement Lab is to **Enable**, **Educate** and **Outreach** to all Changi General Hospital (CGH) staff and ultimately contribute to building the culture of improvement in CGH.



Enable

Provide an informal session for CGH staff to obtain QI consultation from the OIS team.



Educate

Provide CGH staff with actionable QI knowledge from specific areas of Improvement Science to further enhance QI efforts.
"I can do more and do it better"



Outreach

Serve as a platform for generating staff awareness of QI, "QI Faculty", QI buddies and CGH OIS team capabilities.

Methodology

General Format

Each Improvement Lab session consists of a 1-hour interactive session followed by a Meet-the-Specialists session (Figure 1). Staff can register themselves for the Improvement Lab via nomination by their Head of Department (HOD) or self-nomination.

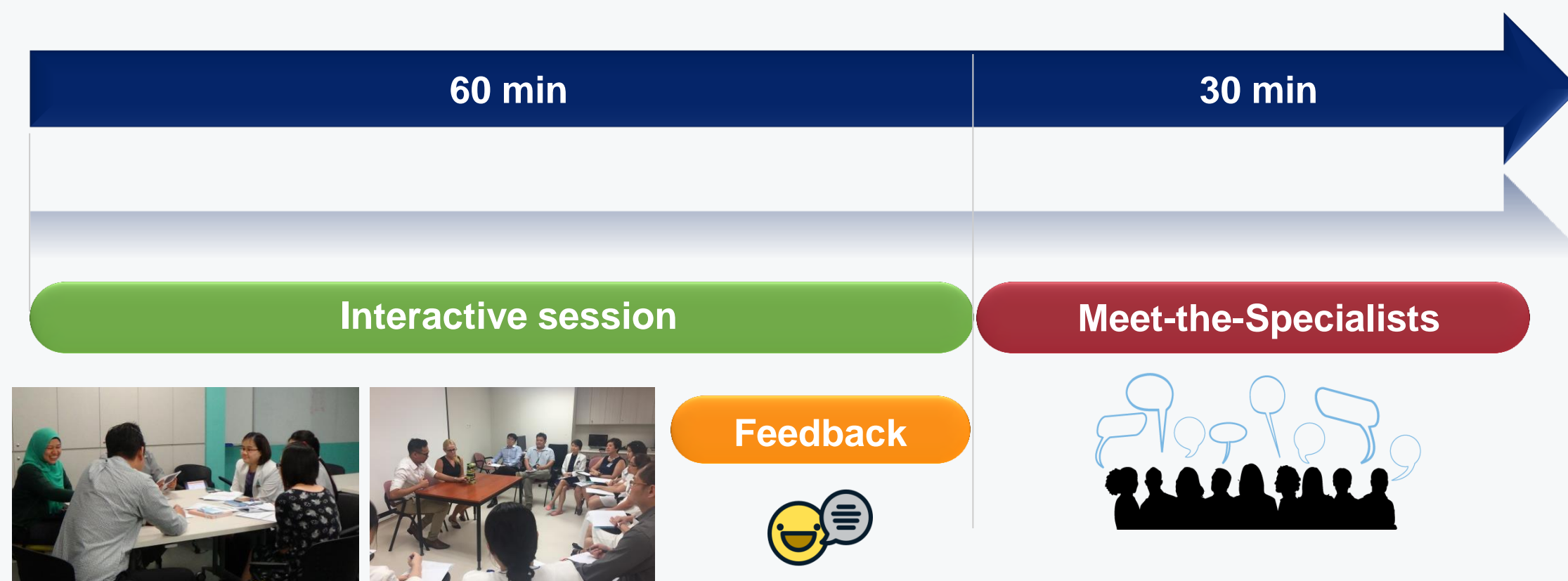


Figure 1. General format of an Improvement Lab session

Interactive Session

Shifting away from conventional didactic teaching a large emphasis is placed on hands-on activities and interaction with participants when delivering content. Each interactive session will cover specific topics of Improvement Science which have been introduced in our QI trainings but not discussed in depth or esoteric topics that are of interest to participants currently engaged in improvement projects. Topics for the 7 Improvement Lab sessions of 2017 were decided based on feedback from our QI trainings and polls conducted with staff (Figure 2).



Figure 2. Improvement Lab 2017 timeline and topics (Completed sessions are indicated in green)

Innovative Starter Kit

At the start of each session, participants also received a 2 page starter kit as a QI resource (Figure 3). Developed in-house, the starter kit provides a summary of the key points highlighted in each session. Not only does the starter kit act as a quick reference guide, it is a companion to our staff who are inspiring change through their QI projects.

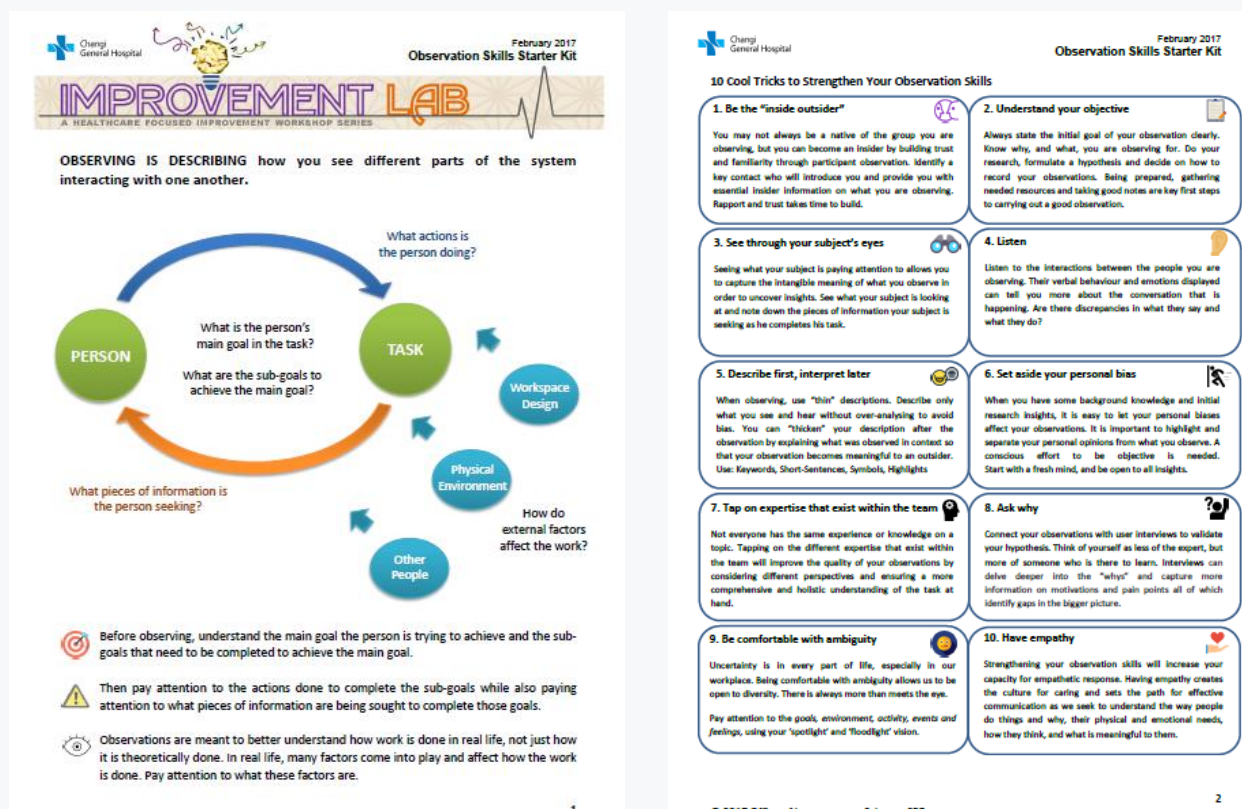


Figure 3. Starter kit from February 2017 Improvement Lab session on observation skills

Monitoring and Evaluation

Plan-Do-Study-Act (PDSA) in action: it was predicted that participants would find an interactive model of teaching more effective and enjoyable than a didactic approach. Feedback forms were distributed to participants after each session to capture insights and review our hypothesis. In addition, comments from the feedback forms gave further insights on what the staff liked about each session or what could be improved upon. This knowledge was then used to inform the design of future Improvement Lab sessions.

Results

To date, 3 sessions of Improvement Lab (Jan, Feb and Apr 2017) have been held. In evaluating whether the aims have been met, results from the feedback forms were analysed. Specific questions in the feedback form served as measures of success in enabling, educating and outreaching to our staff via Improvement Lab (Table 1).

Table 1. Measures of success

Aims	Measure(s)
Enable	• Usefulness of consultation session*
Educate	• Relevance of Improvement Lab session to job • Effectiveness of Improvement Lab session in enhancing understanding of QI • (Perceived) Confidence in using knowledge and skills gained from Improvement Lab session
Outreach	• Likelihood of recommending future Improvement Lab sessions to other staff • Participation rates

* Results are currently in the process of evaluation

Educate

Across all participants, 97.5% found Improvement Lab to be relevant/very relevant to their jobs (Figure 4a). 100% found Improvement Lab to be good/very good in enhancing their understanding of QI (Figure 4b) and 95% perceived themselves to be confident/very confident in using the knowledge and skills gained from the Improvement Lab (Figure 4c).

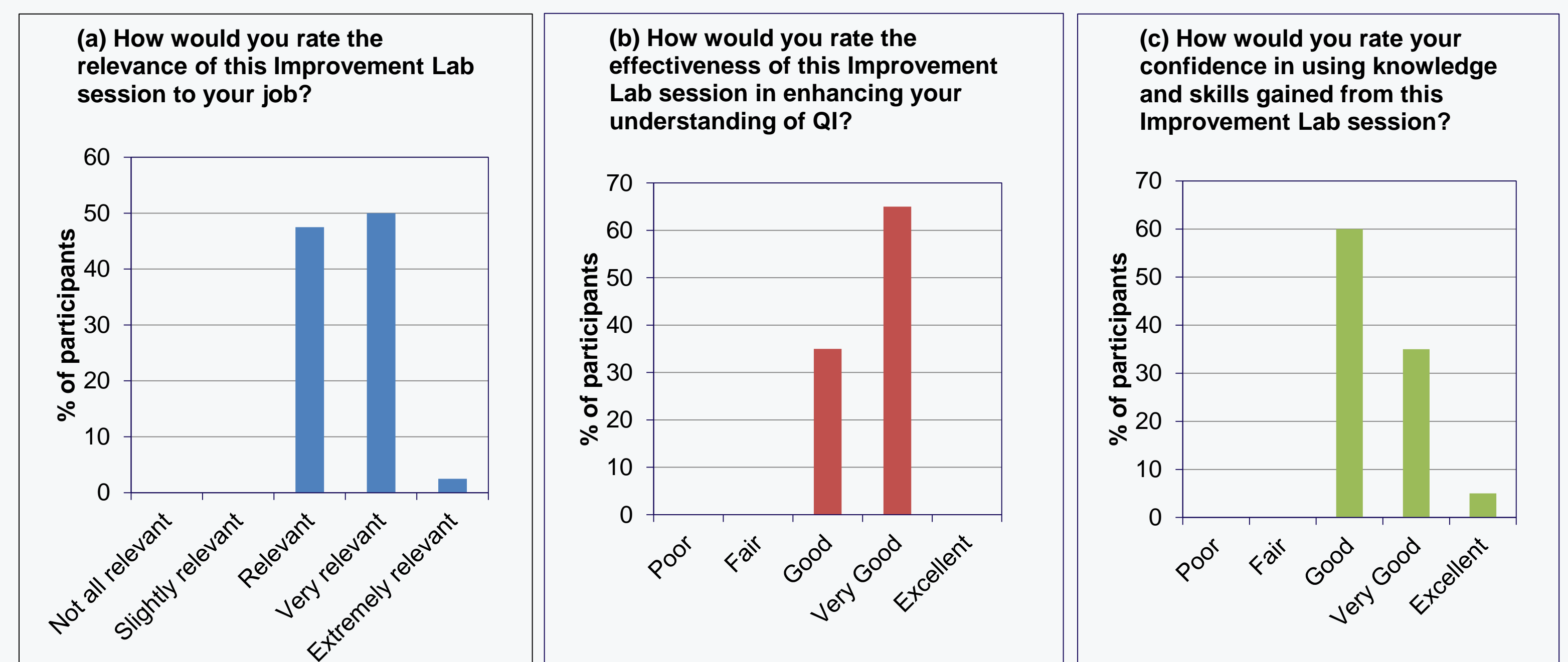


Figure 4. (a) Ratings on relevance of Improvement Lab to job, (b) Ratings on effectiveness of Improvement Lab in enhancing understanding of QI and (c) Ratings on confidence in using knowledge and skills gained from Improvement Lab

Outreach

92.5% of the staff were likely/extremely likely to recommend future sessions of Improvement Lab to other staff (Figure 5). Doubling of participation rates across the 3 sessions was also observed with a greater mix of staff from different disciplines (nursing, medical, allied health and admin) attending the Improvement Lab.

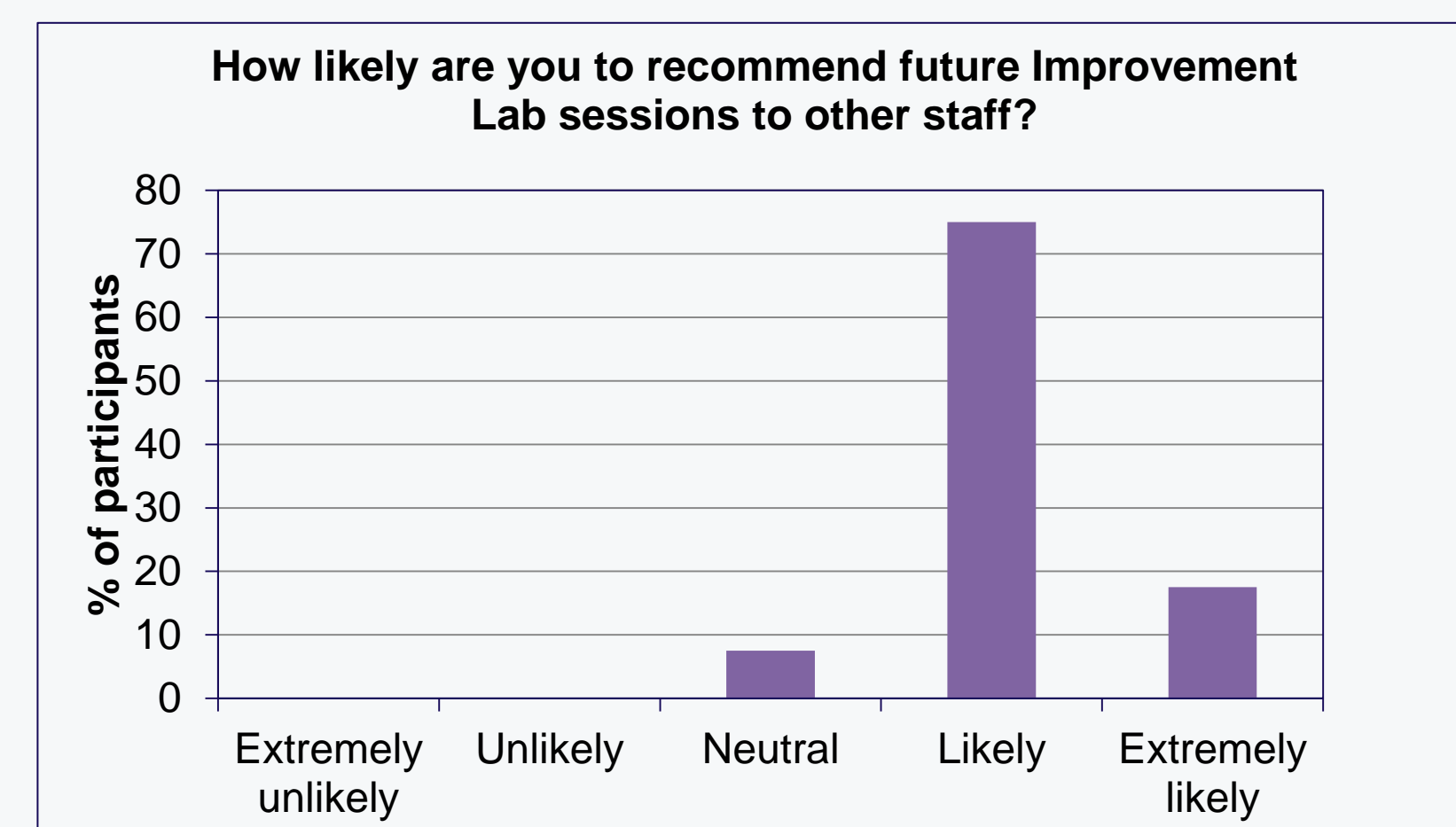


Figure 5. Likelihood of recommending future Improvement Lab sessions to other staff

Qualitative Feedback

In addition to feedback data, free-text comments also provided an understanding of what our participants felt about their Improvement Lab experience.

- ✓ Interactive, hands-on
- ✓ Liked the starter kit
- ✓ High specialist - participant ratio
- ✓ Duration just right
- ✓ Information in fast, digestive bits
- ↑ More opportunity for knowledge application

Conclusion

The Improvement Lab has been successful in gaining traction with our staff as seen by the increasing participation rates and positive feedback received. To ensure that our aims of enabling, educating and outreaching to all staff are met in the wider context of building a QI culture in CGH, OIS is keen to demonstrate the methodologies and principles of QI by using each Improvement Lab session as a PDSA cycle. The learning from each session will act as knowledge and fuel for future sessions as we continuously test changes to improve the structure and content of the Improvement Lab.