The use of simple web-based animation videos to improve engagement and understanding of quality improvement basics for trainee doctors

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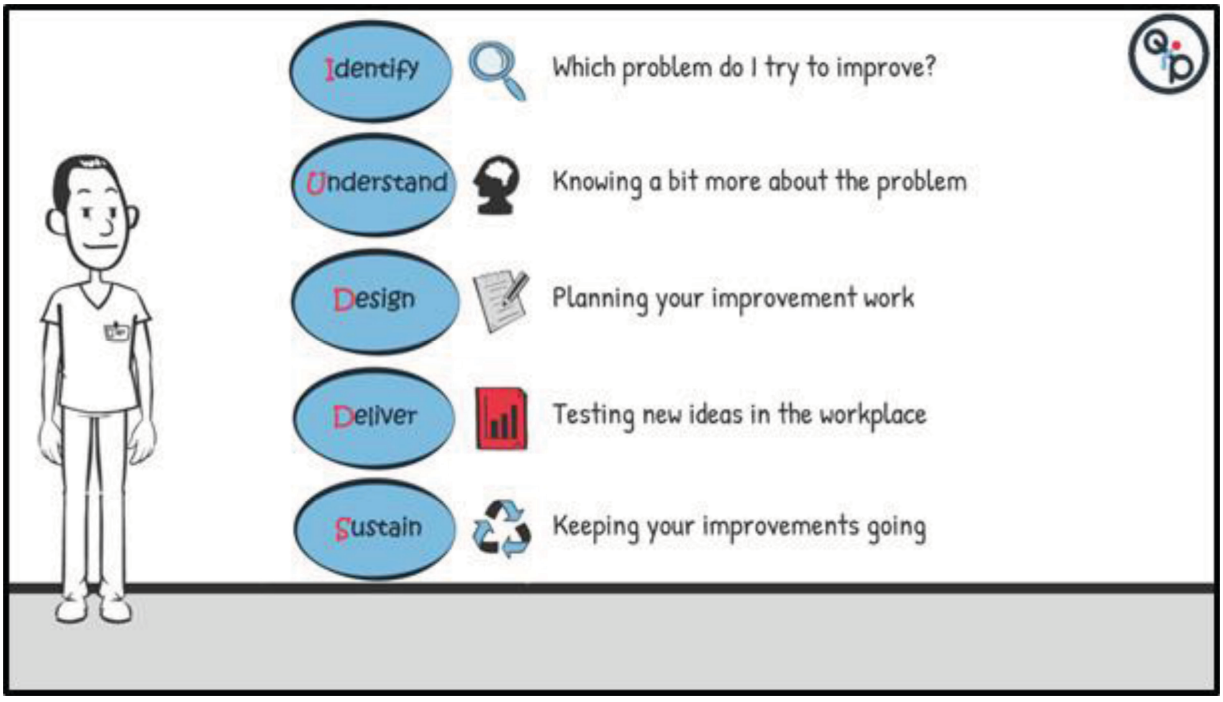

Fig 1. A sample screen of an animation video showing quality improvement stepwise approach.

Introduction

The COVID-19 pandemic has necessitated a disruptive change to the delivery of education to new adaptive learning environments[1] with 53% of all new educational development initiatives being transferred to an online delivery system.[2] There are few examples of online animated videos that teach quality improvement (QI) basics for trainee doctors. With time-constrained trainee doctors, and an absence of embedded QI training, the creation of easy to access, online animated video materials could be an attractive method of engaging, improving awareness and understanding key concepts of QI. This may complement other forms of training, such as QI workshops or participating in mentor-supported QI projects.

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Materials and methods

A series of animated videos were created and posted online to explore whether this approach might fulfil a gap in the improvement educational field. Twelve animated QI videos were created using online animation software. To guide the learner, videos were organised into five simple improvement phases: identify; understand; design; deliver and sustain (See Fig 1). Topics covered ranged from engaging stakeholders, model for improvement, process mapping to how to sustain improvements. These animated videos were posted on www.qipstart.com website, on YouTube and shared through Twitter.

We sought formal feedback from trainee doctors and improvement specialists by asking them to visit the website and view a selection of the videos and answer a short feedback questionnaire. Feedback questions explored website and video

design, and whether they felt these video animations would be a useful resource for trainees new to QI.

Results and discussion

The series of animated videos received hundreds of views on YouTube when promoting the material through social media. The feedback received was split into positive comments and areas of further development.

Positive comments

- 'Videos were informative and clear, great for visual learners.'
- 'Clinical examples made the QI videos more relatable.'
- 'The videos were pitched at the right level for someone new to QI.'
- 'Much easier to follow a video rather than a large body of text!'
- 'Good point of reference as a step-by-step guide and useful resource to refer back to.'

Areas for further development

- 'Clinical QI examples were hospital-centric.'
- 'Could cover a broader range of QI topics.'
- 'Consider using a single worked QIP example from start to finish.'
- 'Try to keep animated videos below 5 minutes where possible.'
- 'Opportunity for website to draw on other good QI materials.'

Conclusion

The feedback from a broad range of healthcare professionals was very positive overall. Potential QI learners were attracted by its simplicity, step-wise approach and the visual style of the animated videos. The use of clinical examples throughout the animations helped with learning, although these examples may not be relatable to all learners. Further videos are currently in development to complete the series with the hope of these animations being a central QI resource for trainee doctors in the future. ■

References

1 Hall AK *et al*. Training disrupted: Practical tips for supporting competency-based medical education during the COVID-19 pandemic. *Med Teach* 2020;42:756–61.
2 Gordon M *et al*. Developments in medical education in response to the COVID-19 pandemic: A rapid BEME systematic review: BEME Guide No 63. *Med Teach* 2020;1-14.