

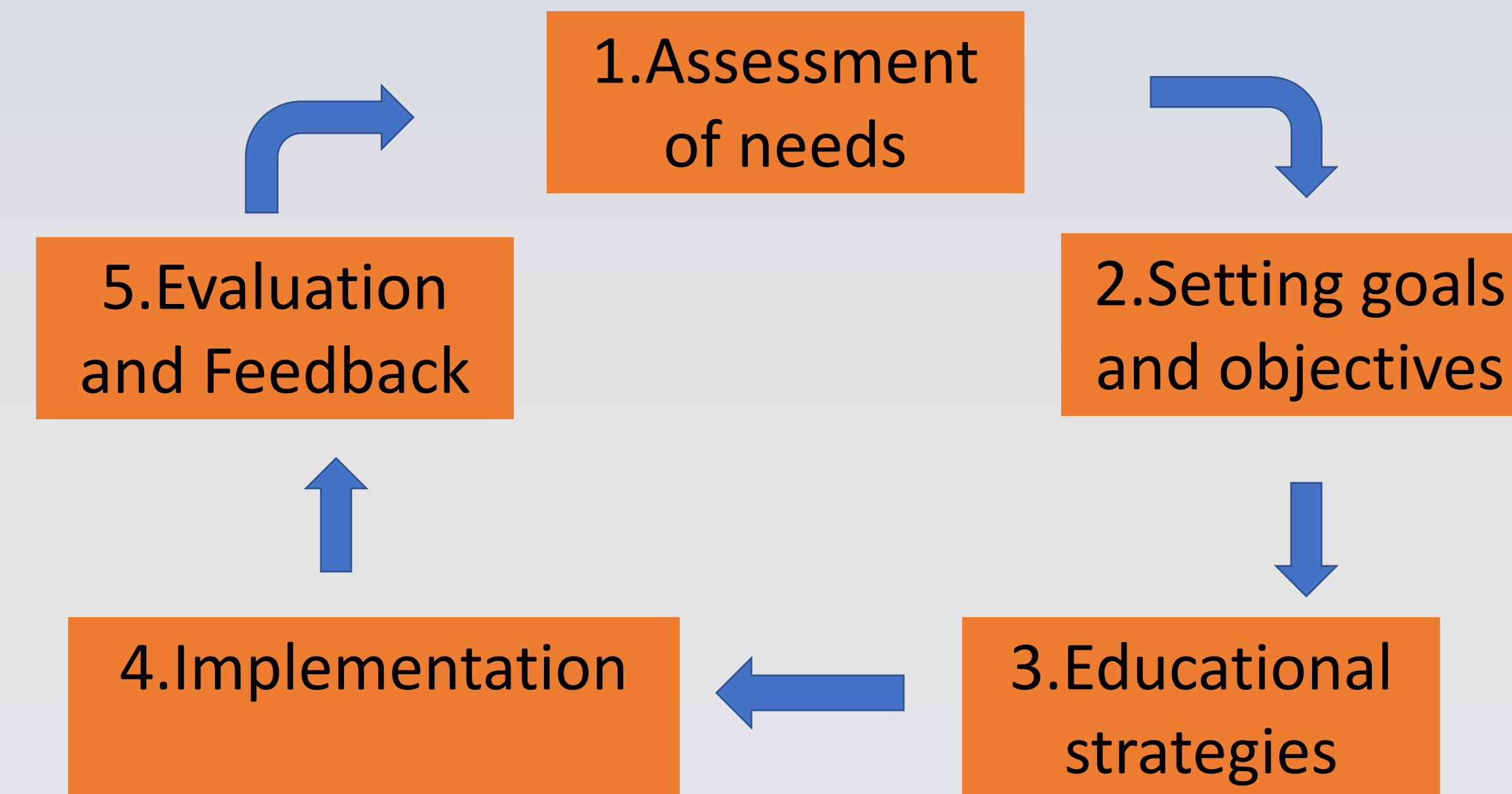
Development of an interactive, e-learning resource to improve trainee competence in the management of difficult and failed intubation in obstetrics.

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Introduction

Commencing an obstetric anaesthetic training block can be daunting for junior anaesthetists. Since more failed intubations occur out of hours [1], the development of suitable training resources is necessary to improve safety. We therefore developed an interactive online learning package based on the Obstetric Anaesthetic Association/Difficult Airway Society (OAA/DAS) guidelines for managing difficult and failed intubation [2] for trainees starting their obstetric block at the Jessops unit in Sheffield.

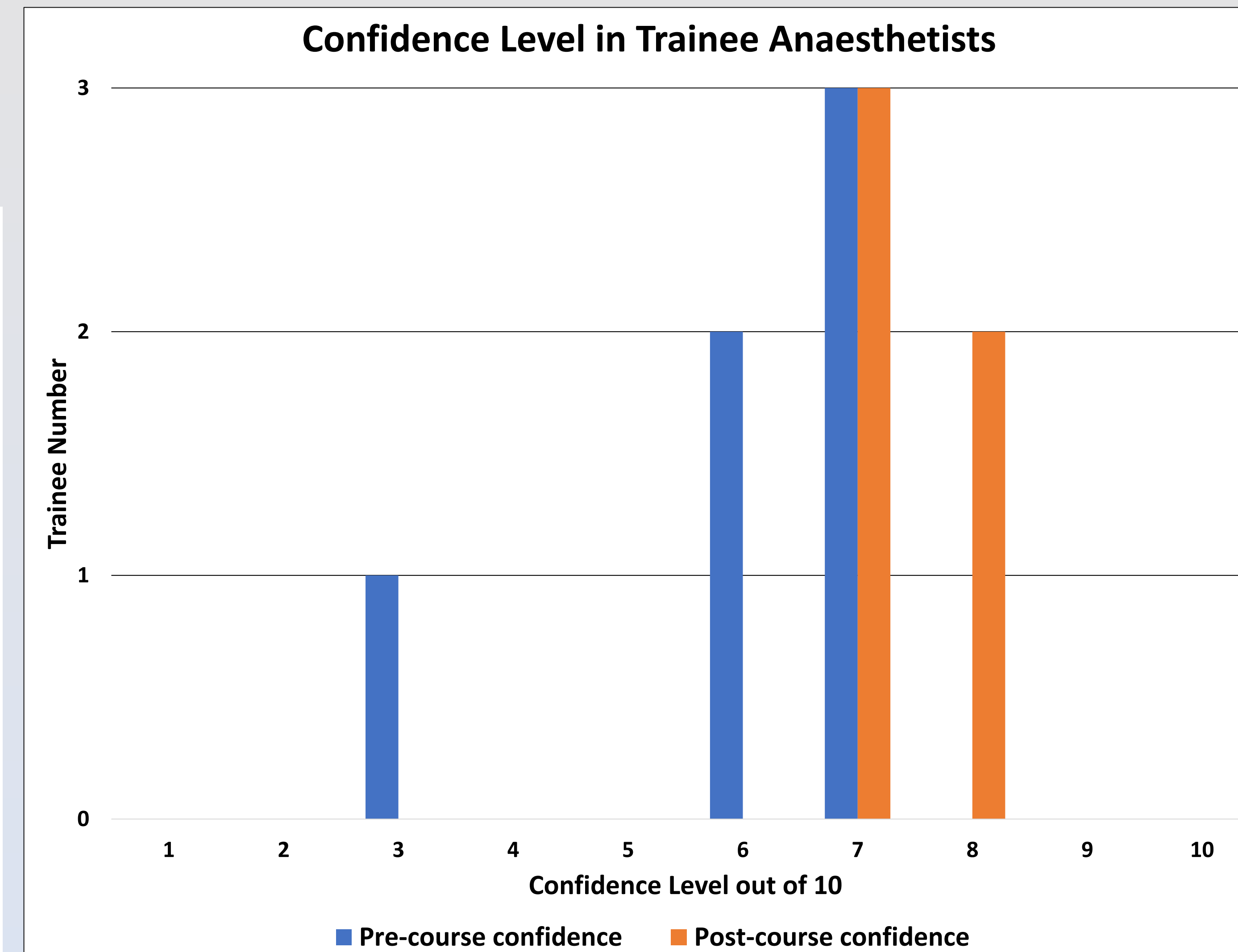


Methods

We chose a staged approach to develop the learning resource: 1. Assessment of needs - to address areas of limited clinical experience for learners. 2. Goals and objectives – to improve the knowledge base and understanding of trainees and to improve retention of the OAA/DAS guideline on failed intubation. 3. Educational strategies – to engage trainees through a variety of multimedia resources, including videos portraying management of obstetric intubation, video simulation of a failed intubation attempt, interactive questions and scenarios, highlighting of the OAA/DAS algorithms and signposting to relevant areas of research. 4. Implementation – to advertise the learning resource to trainees, signpost throughout the rotation and teach difficult airway management. 5. Evaluation and feedback – to obtain feedback from trainees by asking them to complete a pre and post course evaluation of the resource.



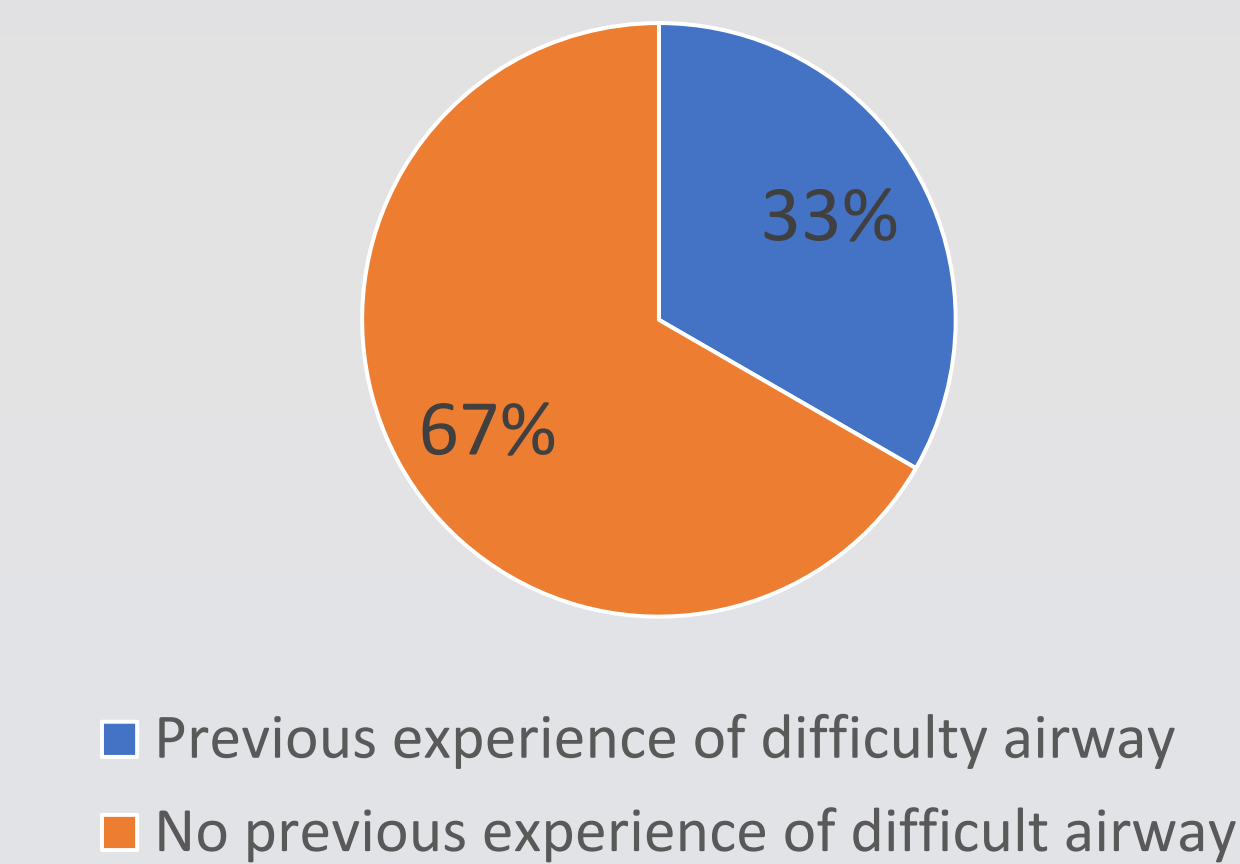
Screenshot from e-learning video demonstrating difficult airway management as per DAS/OAA guidelines [2]



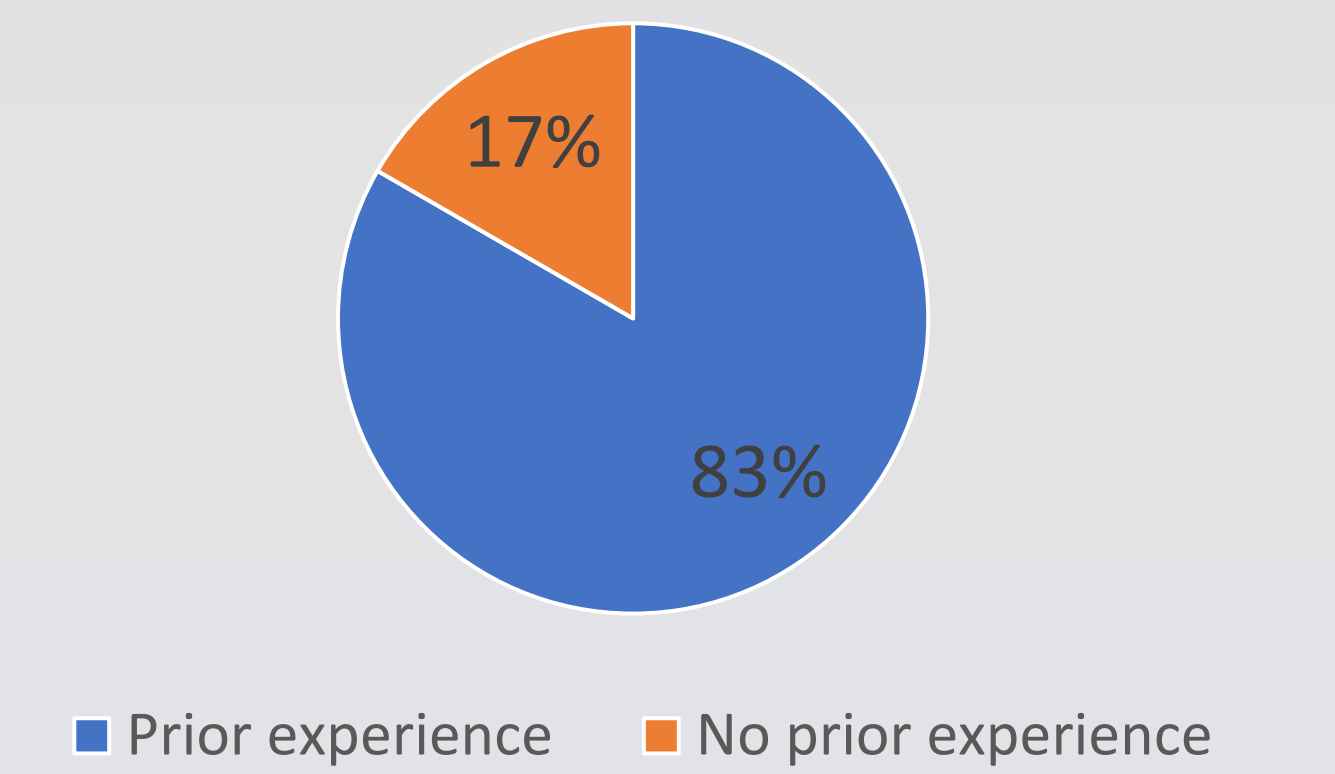
Results

Pre and post course questionnaires were sent out to the 10 anaesthetic trainees in the Jessops unit between November 2022 and January 2023. They were surveyed on their level of seniority, familiarity with difficult airways and their self-perceived confidence with managing difficult airways in obstetric patients. 80% of respondents agreed or strongly agreed that the course prepared them for obstetric on calls. 100% of trainees agreed that the scenarios effectively simulated on call working. There was a mean improvement in confidence levels of 1.6 points on a 10-point scale regarding management of difficult airways in the obstetric population.

Experience of trainees in managing difficult obstetric airway



Trainees experience of using DAS/OAA obstetric airway guidelines prior to course



Discussion

There is difficulty in ensuring effective training for the management of caesarean sections under general anaesthetic. In an environment where there are diminishing opportunities to teach these skills the use of interactive e-learning modules provides one way to improve knowledge, confidence and competence in the prevention and management of obstetric failed intubation.

References

- [1] A.C. Quinn, D. Milne, M. Columb et al. Failed tracheal intubation in obstetric anaesthesia: 2 yr national case-control study in the UK. *British Journal of Anaesthesia*. 2013; 110: 74-80
- [2] M.C. Mushambi, S.M. Kinsella, M. Popat et al. Obstetric Anaesthetists' Association and Difficult Airway Society guidelines for the management of difficult and failed tracheal intubation in obstetrics. *Anaesthesia*. 2015; 70: 1286-1306