

Comments on: Essentials of setting up a wet lab for ophthalmic surgical training in COVID-19 pandemic

Dear Editor,

We read with interest this paper by Mishra *et al.*^[1] Reduction in surgical exposure has reinforced simulated surgical training. While ensuring high-quality content, educational principles should be employed to encourage effective learning. We share our recent considerations when planning for posterior capsular rupture (PCR) simulation.

Audience and rationale

Recent literature has demonstrated a lack of confidence among trainees in managing PCR, highlighting the need for new training strategies.^[2] We used Merrill's^[3] five 'first principles' to ensure effective instructional design. Learning outcomes were demonstrated at the beginning of the animation [Fig. 1]. New knowledge is demonstrated using animation with concurrent text narration to help integration into learners' real-life practice [Fig. 2].

Usability, accessibility and navigation

We employed Muir *et al.*'s^[4] pyramid of pedagogical usability of resources: context-specific, academic, general, and technical. Context usability is outlined by intended learning outcomes as above and academic usability is educational issues in relation to course material. Reliable references from internationally recognized bodies increase the confidence in and relevance of the topic.

Interactivity

One pitfall in using video in learning is its potential to eliminate participants' need to think critically. Interactivity helps participants to concentrate and reinforce the new concepts. Learners should be encouraged to pause and think before watching the explanation. Using this method, individualized learning can be achieved. Figs. 3 and 4 show a trainee undergoing PCR fire-drill.

Evaluation

Feedback and evaluation should be planned at the start. Evaluating resources helps identify what learners perceive as useful, guiding planning for future lessons. We recommend using Anderson's model (a three-stage approach aligning evaluation methods with training goals) to determine the best approach to evaluating and point readers to frameworks such as Miller's Pyramid and Kirkpatrick.^[5] We evaluated acceptability of our video animation amongst our local trainees ($n = 15$). 100% voted strongly agree and agree the animated video increased their confidence in dealing with PCR.

We echo the authors' emphasis on simulation environment for surgical training. Effective learning requires carefully planned educational intervention using instructional design frameworks.

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Nil.

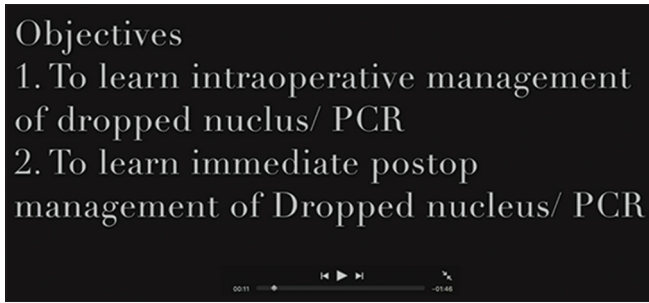


Figure 1: Learning objectives are clearly illustrated at the beginning of the animation

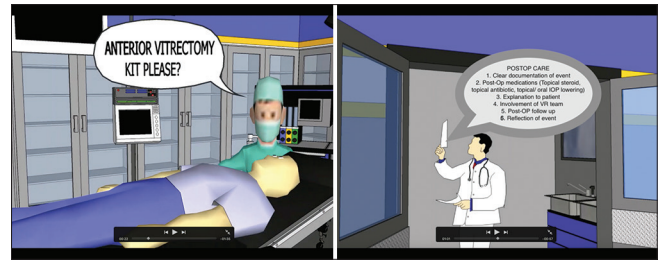


Figure 2: Animation with concurrent text narration



Figure 3: A trainee undergoing PCR fire-drill

Conflicts of interest

There are no conflicts of interest.

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Figure 4: A trainee explaining to simulated patient with regards to complication


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