

Peyton’s technique for skill acquisition: Imperative modifications for current adaptation

Dear Editor,

Numerous techniques are available to impart procedural skills, such as ‘See one–Do one’, ‘See one–Do one–Teach one’, ‘Peyton’s technique’, etc. Peyton’s technique is widely accepted, as a complex skill is broken down into more straightforward, manageable steps, promoting active learning and deeper understanding. It consists of four sequential steps: demonstration, deconstruction, comprehension and performance [Figure 1].^[1]

Peyton’s method might still be one of the most effective methods when imparting skills for which manikins are not yet available and the skill is being taught to a single learner directly on patients. However, there are challenges when skill training happens primarily on manikins for a large group of participants without an ideal learner: instructor ratio.^[2] We propose the following modifications to overcome the current challenges faced while implementing Peyton’s approach to skill teaching:

1. Blended learning- Steps 1 and 2 of Peyton’s approach can be delivered through audio–visual

modules circulated through e-mails or using an institutional Learning Management System at least a week or two before the physical skill training session. They can help reduce the time and effort of the trainers, simultaneously enabling learners to go through the content repetitively, at a time of their preference, till they achieve clarity.^[3]

2. Cognitive assessment before physical skill training- Assessment using multiple choice questions based on the audiovisual module used for blended learning, with a predetermined percentage to be obtained before the learner comes for the physical skill training session, will help ensure compliance with going through the modules. This assurance that the learners have completed steps 1 and 2 of Peyton’s through blended learning is essential to enable accurate and smooth skill acquisition during subsequent practice on manikins.^[4]
3. Encouraging peer-to-peer learning- Steps 3 and 4 of skill training, which happens as physical training on a manikin, can be peer-to-peer, with the supervision of an instructor. We could also consider using peers/seniors with instructor potential who have already learned the skill in previous sessions to aid peer-to-peer learning. This method inculcates a sense of responsibility among learners, enabling a single instructor to handle multiple stations and give feedback where necessary.^[5]
4. Skill assessment with feedback by the instructor- Irrespective of whether Objective

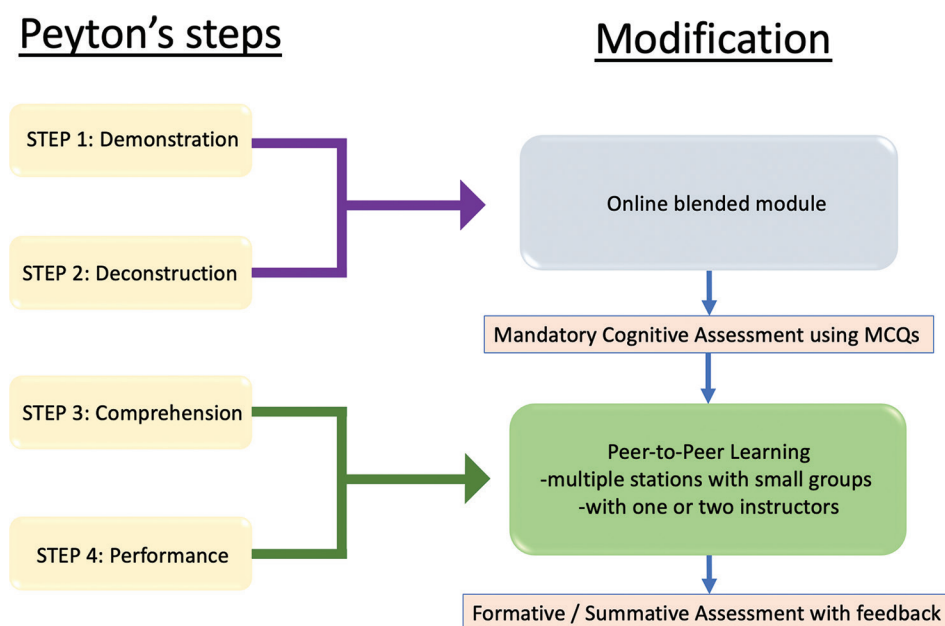


Figure 1: Modification of Peyton’s™ four steps suggested to cater to large groups of learners with limited instructors. MCQ=Multiple Choice Questions

Structured Clinical Examination (OSCE) is used as part of formative or summative assessment at the end of skill training, it has to be conducted sincerely only by an instructor. It should always be accompanied by feedback instead of relying on acquiring an absolute percentage for certification. Assessment is the only time that the instructor is one-on-one with the learner. Though it will take much less time than imparting a skill one-on-one, it, nevertheless, will be an effort that will ensure that correct skills have been imparted to the learners. Any significant deviation in assessment for the entire batch should also signal the instructor to revisit the module, assessment, or the peer group involved in skill imparting.^[5]

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

ORCID

Thilaka Muthiah: <https://orcid.org/0000-0001-5012-3461>

Muralidharan Manikesi: <https://orcid.org/0009-0002-4233-9179>

Abhishek Nagarajappa: <https://orcid.org/0000-0001-6675-951X>

**Thilaka Muthiah, Muralidharan Manikesi,
Durgadevi Elumalai, Abhishek Nagarajappa¹**

Apollo Simulation Centre, Apollo Hospitals, Chennai, Tamil Nadu,

¹Department of Anaesthesiology, Pain Medicine and Critical Care, All India Institute of Medical Sciences, New Delhi, India

Address for correspondence:

Dr. Abhishek Nagarajappa,

Associate Professor, Department of Anaesthesiology, Pain Medicine and Critical Care, All India Institute of Medical Sciences, New Delhi, India.

E-mail: abhishek.nagarajappa@outlook.com

Submitted: 23-Dec-2023

Revised: 30-Dec-2023

Accepted: 31-Dec-2023

Published: 18-Jan-2024

REFERENCES

1. Walker M, Peyton JWR. Teaching and learning in medical practice. In: Peyton JWR, editor. Teaching in the Theatre. Rickmansworth: Manticore Publishers Europe Ltd; 1998. p. 171–80.
2. Nikendei C, Huber J, Stiepak J, Huhn D, Lauter J, Herzog W, *et al.* Modification of Peyton's four-step approach for small group teaching – A descriptive study. *BMC Med Educ* 2014;14:68.
3. Currat L, Suppan M, Gartner BA, Daniel E, Mayoraz M, Harbarth S, *et al.* Impact of face-to-face teaching and electronic learning on personal protective equipment doffing proficiency in learner paramedics: Randomized Controlled Trial. *Int J Environ Res Public Health* 2022;19:3077.
4. Thampy H, Willert E, Ramani S. Assessing clinical reasoning: Targeting the higher levels of the pyramid. *J Gen Intern Med* 2019;34:1631-6.
5. Burgess A, van Diggele C, Roberts C, Mellis C. Key tips for teaching in the clinical setting. *BMC Med Educ* 2020;20(Suppl 2):463.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Access this article online	
Quick response code	Website: https://journals.lww.com/ijaweb
	DOI: 10.4103/ija.ija_1257_23

How to cite this article: Muthiah T, Manikesi M, Elumalai D, Nagarajappa A. Peyton's technique for skill acquisition: Imperative modifications for current adaptation. *Indian J Anaesth* 2024;68:126-7.

© 2024 Indian Journal of Anaesthesia | Published by Wolters Kluwer - Medknow