Canadian Medical Education Journal

You Should Try This!

A novel IDEA(-R) for a small group teaching format

Une nouvelle IDEA(-R) pour un format d'enseignement en petit groupe

Beatrice TB Preti,[1,2] *Michael S Sanatani*[1]

[1]Division of Medical Oncology, Western University, Ontario, Canada; [2]Department of Haematology & Medical Oncology, Emory University, Georgia, USA

Correspondence to: Beatrice Preti; email: bpreti@qmed.ca

Published ahead of issue: Aug 4, 2024; published: Aug 30, 2024. CMEJ 2024, 15(4) Available at https://doi.org/10.36834/cmej.78097

Implication Statement

We present a novel small group teaching format (termed IDEA-R), ideal for deliberate targeting and escalation of cognitive learning tasks. Additionally, this approach is ideal for smaller postgraduate programs which struggle to predict trainee attendance far in advance, as it provides a flexible format that can adapt to in-the-moment fluctuations in trainee numbers.

Énoncé des implications de la recherche

Nous présentons un nouveau format d'enseignement en petits groupes (appelé IDEA-R), idéal pour le ciblage délibéré et l'escalade des tâches d'apprentissage cognitif. En outre, cette approche est parfaite pour les petits programmes de troisième cycle qui ont du mal à prévoir la participation des stagiaires longtemps à l'avance, car elle offre un format flexible qui peut s'adapter aux fluctuations instantanées du nombre de stagiaires.

Introduction

Small-group, case-based learning is ideal for teaching to higher Bloom levels.[1] Based on constructivist learning theory, interactive small group learning is an active learning strategy. It encourages participants to build on their existing skills and knowledge by reflecting on their application in new contexts. Different Bloom levels (or levels of cognitive learning) can be deliberately targeted by facilitators of these sessions to cater to the needs of the learners.[2] Different levels of learners should work at different Bloom levels, and the small group session structure should be able to be tailored appropriately.

However, session facilitators may face difficulties when trying to adopt common, literature-based session structures. These models frequently necessitate a pre-determined number of trainees attending, which can pose challenges to smaller postgraduate programs where attendance may be difficult to predict in advance (due to post-call days/clinical duties/vacation/illness or personal issues). With a smaller group, even a single latecomer or absent trainee can compromise session planning and design. For example, the jigsaw method requires pre-session work assigned to specific trainees,[3] while the think-pair-share method requires divisible numbers of trainees for equal pairs.[4]

Consequently, there is a need for a small group facilitation model which is flexible enough to allow for unpredicted variation in participant numbers, as well as Bloom-level flexibility to cater to a wide variety of learners, while still enabling the learning optimally done in small group formats.

Description of the innovation

We designed a novel small group structure, termed IDEA-R (Individual answer, Discussion, Expanded discussion, Advancement of Case, Rearrangement), based on a combination of the think-pair-share and jigsaw models, altered to allow flexibility with attendance (Figure 1). Unlike the mentioned models, IDEA-R does not require assigned pre-work or divisible numbers, and small group structures are adapted as the session progresses.

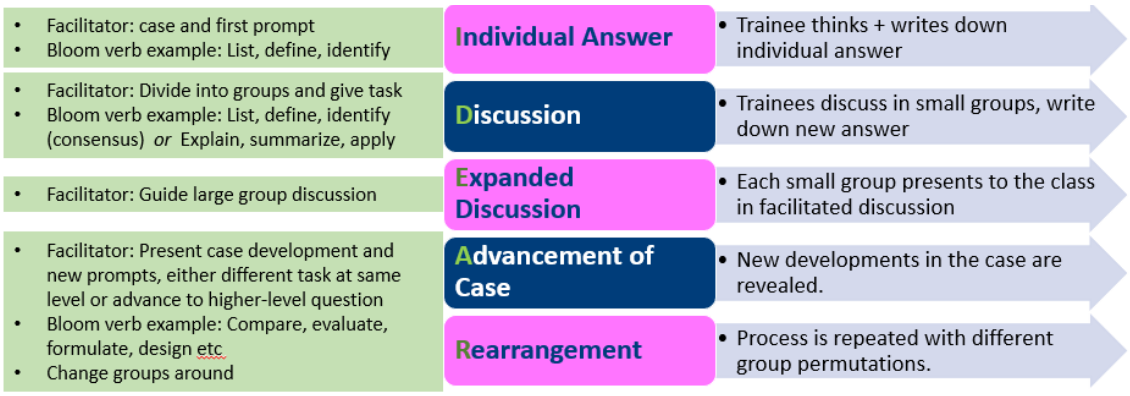

Figure 1. IDEA-R Structure

Additionally, IDEA-R is designed with a clinical lens, consisting of a case presented in pieces, with a question following each part of the vignette. Trainees begin by writing down individual answers. This is followed by a small group discussion (estimated 2-4 individuals), again with answers written down. Following this, a teacher-moderated large group discussion is held to ensure appropriate understanding. Groups are them re-formed. New information and a new question are then presented, and the process is repeated with the different small groups that ensures flexibility and knowledge-sharing amongst trainees. The change in groups allows for latecomers or those accommodating disruptions (i.e. urgent pages) to be incorporated into teaching in the moment.

The graded case structure allows for targeting of the same Bloom level, or even increasingly advanced ones, as the session progresses.

Highlights of the IDEA-R method include the opportunity for several levels of discussion and regular changes in the small groups to stimulate greater discussion. The design is flexible enough to target learning outcomes of different Bloom levels and cater to different facilitation styles and practical issues, such as latecomers, as the groups constantly change.

Outcomes

We trialed IDEA-R at a faculty development course, and then during a teaching session. Sessions comprised of a brief orientation to the IDEA-R model, and then a real-time trial. During the faculty development course, attendees were also given the opportunity to practice moderating a session. We collected feedback and incorporated it after each iteration. Fifteen individuals (nine consultants, six trainees) participated in a post-session survey, which was consistent with the audience size. Trainees ranked IDEA-R "very" (83.3%) or "extremely" (16.7%) effective for their learning; high interest (100%) was reported in attending another session using IDEA-R. Participants described the method as flexible, engaging, helpful, and innovative/novel. Each step of IDEA-R took, on average, two minutes for individual thought and 5-10 minutes for larger discussion; thus, each case took approximately half an hour to forty minutes. These results suggest perceived ease of the model's incorporation into classroom-based teaching.

Suggestions for next steps

IDEA-R represents a session format specifically designed for flexibility with Bloom levels and learner attendance. Potential next steps include more widespread incorporation of IDEA-R into classroom-based teaching, with comparison studies between think-pair-share and jigsaw models for ease of use and both teacher and learner perceptions.

Conflicts of Interest: None
Funding: None
Edited by: Amina Sadik (section editor); Anita Acai (senior section editor); Marcel D'Eon (editor-in-chief)

References

1. Edmunds S, Brown G. Effective small group learning: AMEE Guide No. 48. *Med Teach*. 2010 Sep;32(9):715-26. https://doi.org/10.3109/0142159X.2010.505454
2. Costa AL, Kallick B. Five strategies for questioning with intention. *Educational Leadership*. 2015 Sep;73(1):66-9.
3. Clarke J. *Pieces of the puzzle: the jigsaw method*. Handbook of cooperative learning methods. 1994.
4. Lyman FT. *The responsive classroom discussion: the inclusion of all students*. In: Mainstreaming digest: a collection of faculty and student papers. 1981