Effectiveness of a Blended Workshop in Research Ethics and Responsible Conduct in Research for Myanmar Academics

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INTRODUCTION

As Myanmar transitions to a democracy, with ongoing social, economic, and political reforms, The National Health Plan (2017-2021) highlights "Promoting Health Research" as a major program area. Accordingly, the Ministry of Health & Sports has implemented mandatory training in research ethics (RE) and responsible conduct in research (RCR). Furthermore, University of Medicine-1 in Myanmar in conjunction with the University of Maryland, USA was awarded a Fogarty International Center/NIH grant to develop a masters degree program in research ethics.

OBJECTIVES

- To determine the effectiveness of a workshop in RE and RCR that incorporated a blended pedagogy (face-to-face and online).
- To determine the satisfaction and attitudes of participants toward a blended learning pedagogy.

METHODS

A two-day workshop (WS) was held in Yangon, Myanmar in April 2018. Participants comprised of academics from the public universities, the military academies, and International Non-Governmental Organizations conducting research in Myanmar.
Online Activities: Prior to the WS, participants were enrolled in a Moodle Learning Management System to access online the agenda, learning objectives and reading materials. A facilitator conducted an online discussion forum prior to the WS to encourage participants to read the materials and obtain familiarity with the online medium. Daily reflections and additional forums were held during the WS and afterwards.
Workshop: Activities included lectures and active learning techniques. At the end of the WS, participants completed a quiz.

Examples of Active Learning Techniques

- Interactive lectures moderated by instructors
- Brainstorming in response to videos and short cases
- Think – Pair – Share among participants
- Polling followed by group discussions of the results
- Small Group case studies
- Flip Charts to organize small group discussions
- Role Play

Pictures of the Workshop Demonstrating Active Learning Techniques

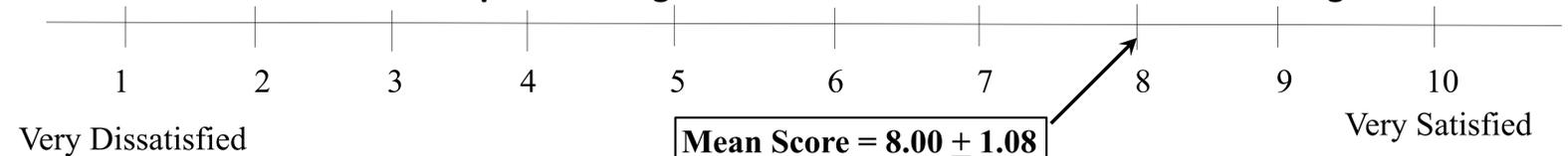Brainstorming session | Group discussion facilitated by an instructor | Group work at tables with flip charts | Small group discussing a case study

RESULTS

Participants' rating of their overall satisfaction with the training

1 2 3 4 5 6 7 8 9 10
Very Dissatisfied
Mean Score = 8.00 ± 1.08
Very Satisfied

Participants' responses on the feedback survey

Scale: 1 = agree, 2= tend to agree, 3= tend to disagree, and 4 = disagree

Item	Average Score	SDEV
Online materials useful in preparing	1.36	0.42
Workshop engaged in active learning	1.23	0.42
Workshop was well facilitated	1.29	0.46
Learning objectives were met	1.23	0.48
Faculty engaged with the audience	1.68	0.49
Faculty used active learning techniques	1.84	0.46
Faculty encouraged questions	1.65	0.42

Quiz Score
The mean score on the quiz was 80.06 ± 12.06

Predominant themes on open-ended questions
- active learning techniques enhanced learning and understanding of concepts from the lectures
- conflict of interest and plagiarism were the favored topics
- online discussion forums were useful
- I will use active learning in my teaching

DISCUSSION

- The blended workshop was successful in terms of overall satisfaction, meeting learning objectives, the success of active learning techniques to enhance learning, high ratings of faculty, and high scores on the quiz.
- The participants valued the access to the online materials and the discussion forums, which enhanced collaborative learning.
- The addition of online learning may enhance the face-to-face environment. The U.S. Department of Education found that "on average, students in online learning conditions performed better than those receiving face-to-face instruction" (1). This was particularly true for blended environments. A more recent meta-analysis (2013) showed that on average, students in blended learning conditions performed modestly better than those receiving face-to-face instruction (2).

1. U.S. Department of Education, Office of Planning, Evaluation, and Policy Development. (2010). Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies. Washington, DC: Government Printing Office.
2. Means, B, Toyama Y, Murphy RF, Baki M. Teachers College Record Volume 115 Number 3, 2013, p. 1-47. http://www.tcrecord.org/library ID Number: 16882.

CONCLUSIONS

- Online activities enhanced the activities in the workshop, e.g., the use of a discussion forum prior to the workshop encouraged reading the introductory materials.
- We recommend the use of a blended learning technology for future workshops involving RE and RCR content.
- Further research on different blended learning models and delivered to different kinds of learners is warranted.