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Best Of Best Research and Innovation Abstracts

1 The Value of a Mentored-Peer Review Program to a Medical Education Journal

Jeffrey Love, Wendy Coates, David Way, Chris Merritt, Anne Messman, Jon Ilgen, Douglas Ander

Background: There is a lack of organized training opportunities for budding scholars to learn how to provide peer-review for scholarly submissions. Journals that often struggle to find sufficient quality reviewers are in an ideal situation to create such a program. The XX developed a novel, mentored peer-review (MPR) program in 2020 to provide an opportunity whereby education fellowship directors could mentor their fellows in reviewing journal submissions.

Objective: The purpose of this study was to compare the quality and turnaround time between traditional reviewers and MPRs with a secondary aim of increasing the available pool of high-quality reviewers. We hypothesized that the program would have significant benefit to the journal.

Methods: This was a prospective, observational study deemed exempt by the XX IRB. From 2020-2022, 24 geographically diverse education fellowships participated in the program. Reviews submitted by the journal's traditional reviewers were compared to those of the MPR cohort. Both groups were asked to complete their reviews within two weeks. The review quality was scored by two editors, blinded to one another's scoring and type of reviewer, using a validated scoring rubric. Data were compared using an independent t-test. Turnaround time from manuscript access to submission of a review was tracked. We also tracked the percentage of reviews provided by MPRs, those recognized for their high-quality and the number of participating fellows who subsequently provided independent reviews.

Results: Table 1 provides data related to the quality and turnaround time, comparing traditional reviews to MPRs. Table 2 reflects additional data trends related to the program.

Conclusions: The MPR program provided higher quality reviews than those of traditional reviewers and increased the high-quality reviewer pool without impacting turn-around time.

Reviewer Type	Number of Reviews	Mean Editorial Score/Standard Deviation
Traditional Reviews	756	3.78 +/-1.04
Mentored Peer-Reviews	83	*4.20 +/-0.79
		Mean Turnaround Time (days)
Traditional Reviews	258	9.86 +/-0.59
Mentored Peer-Reviews	84	10.88 +/-0.79

Table 1. Comparison of editorial scoring of reviews (1-5, 5=excellent) and turnaround time (access to submission) between traditional reviews and those produced from mentioned peer-reviews.
*P <0.001 level.

Table 2. Additional data trends by year related to the mentored peer review program.

	2020	2021	2022
Percentage of high-quality review recognition represented by MPRs (Based on editors blinded scoring of manuscripts, 1-5 scale, Avg >4.0]	50.0% (10/20)	35.3% (6/17)	81.0% (17/21)
Participating Fellowship Programs in the MPR Program	14	19	24
Percentage of total reviews represented by MPRs	9.7% (16/165)	29.5% (38/129)	42.1% (32/83)
Prior participants of MPR program who have since served as independent reviewers	0	1	7

2 Impact of Form Changes on Consensus Regarding Competitiveness of Standardized Letters of Evaluation

Morgan Sehdev, Caitlin Schrepel, Sharon Bord, Alexis Pelletier-Bui, Al'ai Alvarez, Nicole Dubosh, Benjamin Schnapp, Yoon Soo Park, Eric Shappell

Background: Work reported at CORD in 2023 showed high faculty consensus regarding the competitiveness of standard letters of evaluation (SLOEs) and evidence that algorithms could predict these ratings with high accuracy using the SLOE template retired in 2022. It is unknown if these findings persist when the new version of the SLOE is used.

Objective: Measure consensus regarding competitiveness of SLOEs using the new format introduced in 2022, assess the ability of algorithms to predict consensus ratings, and compare results to previously reported data.

Methods: Using national data from the new SLOE as a blueprint, we created 50 simulated SLOEs representative of the national distribution. Seven experienced faculty from varied geographic regions ranked these SLOEs in order of competitiveness. Consensus was evaluated using levels of agreement established a priori. Two prediction models were tested to determine their ability to predict faculty consensus rankings: a point-based system derived by a senior author and a linear regression model.

Results: were compared to the prior study which used similar methods but with the previous version of the SLOE. A cutoff of +/- 10% was set as the threshold for a meaningful increase/decrease in agreement or prediction. Results Faculty consensus regarding SLOE competitiveness was stable to improved across all agreement levels (range: 1-17% increase in consensus). Prediction model performance was also stable with the only change in prediction >10% in the Exact agreement category for both models (+12% agreement in both cases). Predicted ranking correlation with consensus ranking was also stable, within .01 of previously reported levels for both models.

Conclusions: In a national sample of faculty evaluating simulated SLOEs, the degree of consensus regarding competitiveness and the ability of algorithms to predict consensus ranking was stable despite changes to the EM SLOE.