

Appendix 4. Classification of peer review report quality components

Peer Review Report Quality Components	N. of tools
<p>1. Relevance of the study</p> <ul style="list-style-type: none"> • Did the reviewer discuss the importance of the research question? (1,2) • Importance of question: Did the reviewer pay appropriate attention to the importance of the research question? (3) • Did the reviewer give appropriate attention to the importance of the question? (4) • Usefulness of the study (5) • How well the review addressed the clinical or research importance of the study? (6) • Discussion: measures the merit of identifying and discussing the importance, implications or improvements of the research (7) • Theoretical framework (8,9) • Literature review/ references (8,9) 	9
<p>2. Originality of the study</p> <ul style="list-style-type: none"> • Did the reviewer discuss the originality of the paper? (1,2) • Problem statement/originality (8,9) • Originality of manuscripts (5) 	5
<p>3. Interpretation of the results</p> <ul style="list-style-type: none"> • Did the reviewer comment on the author's interpretation of the results? (1,2) • The reviewer commented accurately and productively on the quality of the author's interpretation of the data, including acknowledgment of the data's limitations (10) • Discussion/ Interpretation of results (8,9) • Interpretation of results (5) 	6
<p>4. Strengths and weaknesses of the study</p>	
<p>4.1 General</p> <ul style="list-style-type: none"> • Comments enhance the merits and relevance of the work (11) • Strong and weak points (5) • How well it identified the study's strengths and weaknesses? (6) • Merits: measures how accurate and justified the review is in identifying manuscript strengths (7) • Critique: measures how accurate the and justified the review is in identifying manuscript weaknesses (7) • Shortcomings identified (12) • Target key issues: Did the reviewer concisely identify the key issues that either make or break the manuscript (from the editor's perspective)? (3) • Did the reviewer target key issues? (4) 	7

<p>4.2 Methods</p> <ul style="list-style-type: none"> • Did the reviewer clearly identify the strengths and weaknesses of the methods (study design, data collection and data analysis)? (1,2) • The reviewer identified and commented on major strengths and weaknesses of study design and methods (10) • Methods: Did the reviewers clearly identify the strengths and weaknesses of the a. study design; b. data collection and c. data analysis (3) • Did the reviewer clearly identify strengths and weaknesses in the study's methods? (4) • Design/methods (8,9) 	7
<p>4.3 Statistical methods</p> <ul style="list-style-type: none"> • Persons (9) • Occasions (9) • Variables and measurement (9) • Procedure (9) • Data quality (9) • Model/estimator/assumptions (9) • Confidence intervals/p-values/overall fit (9) • Statistical interpretation (9) • Tables (9) • Graphs (9) 	1
<p>5. Presentation and organization of the manuscript</p> <ul style="list-style-type: none"> • Did the reviewer make specific useful comments on the writing, organisation, tables and figures of the manuscript? (1,2) • The reviewer commented on mayor strengths and weaknesses of the manuscript as a written communication, independent of the design, methods, results, and interpretation of the study (10) • Presentation: Are there any constructive suggestions on improvement of a. writing; b. data presentation and c. interpretation (3) • Did the reviewer make constructive comments about the quality of writing and presentation of data? (4) • Data analysis/Presentation (8,9) • Organization/writing (8,9) • Tables and figures (5) 	8
<p>6. Structure of reviewer's comments</p> <ul style="list-style-type: none"> • Sophisticated detailed comments to the author by section with line and page references (11) • Concise well-organized comments to the editor (11) • Section-by-section review (13) • Structure (14) • Consistent with journal's review criteria (12) 	4
<p>7. Characteristics of reviewers' comments</p> <p>7.1 Clarity</p> <ul style="list-style-type: none"> • Clear (8,9) • How clear was this review? The review was easily read and interpreted by the editor and authors (17) 	3

<p>7.2 Constructiveness</p> <ul style="list-style-type: none"> • Were the reviewer's comments constructive? (1,2) • The reviewer's comments to author were constructive and professional (10) • Constructive (3,8,9) • Constructiveness (4,14) • How helpful was this review? Comments were constructive, relevant, and realistic (17) 	9
<p>7.3 Detail/ Thoroughness</p> <ul style="list-style-type: none"> • The amount of detail (16) • Level of sophistication of the commentary (16) • Detail of commentary (12) • General: Was the reviewer a. thorough (3) • Thoroughness (4) • Precise (8,9) • How thorough was this review? The review gave adequate consideration to all aspects of the paper including methodology, figures, interpretation and presentation of results, ethics, relevance, etc. (17) • Did the reviewer supply appropriate evidence using examples from the paper to substantiate their comments? (1,2) • Offering supporting references (13) • Did reviewers supply evidence to support their statements? (6) • Logical (8,9) 	11
<p>7.4 Fairness</p> <ul style="list-style-type: none"> • Fair (3) • Fairness (4) • Balanced/fair (8,9) • Objectivity (14) 	5
<p>7.5 Knowledgeable</p> <ul style="list-style-type: none"> • Knowledgeable (3) • Knowledge of the manuscript's content area (4) • Knowledgeable/substantiated (8,9) • Understands content (12) 	5
<p>7.6 Tone</p> <ul style="list-style-type: none"> • How would you rate the tone of the review? (2) • Etiquette (13) • Courteous (3) • Courteousness (4) • Overall tone of the reviewers was also assessed as harsh or courteous (5) • Were reviewers courteous? (6) • Constructive tone (12) 	7
<p>8. Timeliness of the review report</p> <ul style="list-style-type: none"> • Timely (14 days) or early review completion (11) • Timeliness (13) • Aspect: Timeliness (15) • Punctuality of the review (16) • Turnaround time (14) • How timely was this review? The review assignment was completed within the time limits established by the editor (17) • Time taken to review (<4 weeks) (18) 	7
<p>9. Usefulness of the review report</p> <p>9.1 Decision making</p> <ul style="list-style-type: none"> • Grade sheet (13) 	6

<ul style="list-style-type: none"> • Summary and/or recommendation (13) • The reviewer provided the editor with the proper context and perspective to make a decision about acceptance or revision of the manuscript (10) • Summary grade (4) • Aspect: Helpfulness for Decision (weight 27): This aspect should be evaluated regardless of how useful the review will be as feedback to the authors (15) • Usefulness to editor (8,9) 	
<p>9.2 Manuscript improvement</p> <ul style="list-style-type: none"> • Aspect: Helpfulness for Authors (weight 19): This aspect is solely interested in how well the review aids the authors for improving their work and/or writing. Whether the review makes a good judgment regarding acceptance of the submission plays no role here whatsoever (15) • Perceived Usefulness to authors (8,9) • ≥ 300 words or more than 4 suggestions for improvement (18) • Suggestions to correct errors (18) • Specific errors identified (18) • Better references (18) • The reviewer provided the author with useful suggestions for improvement of the manuscript (10) • The quality of the suggestions for manuscript improvement (16) • Specific suggestions (12) • Insight (14) • New insights/perspectives (13) 	9

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