Guide: How to carry out a scientific review / 論文完成度チェックリスト

CATEGORIES	QUESTIONS TO CONSIDER
TITLE, ABSTRACT, & KEYWORDS	• Do the title, abstract, and keywords give the readers a good idea of the paper? • Does the abstract contain all the required information (background, rationale, objective, summarized methods and results, conclusion and implications) and highlights the important aspects of the study?
LITERATURE REVIEW & RESEARCH RATIONALE	• Does the paper have a clear and specific study aim or research question? • Does the paper provide a sufficient background of the problem studied? • Have the authors provided a clear rationale for undertaking the study? • Are the hypotheses or practical considerations described well? • Are all relevant previous studies cited or are there important studies that should be mentioned in the paper? In other words, does the paper provide an adequate discussion of the research that has already been conducted on the topic? • Is any information from previous literature misrepresented? • Does the paper clearly explain the significance of the problem studied? Is the significance compelling?
STUDY DESIGN OR METHODOLOGY	• Is the study approach consistent with the research objective? Is the design suitable for answering the question posed? • Does the study design lack any must-do experiments? • Are the participants, subjects, samples, and materials adequately described? • If human or animal subjects were used, are ethical considerations and/or requirements mentioned appropriately? • Is the sample size/target population adequate to yield statistically significant results? • Is the proposed sample representative of the target population? Were the participants/subjects/samples correctly assigned in the study? • Are proper control groups and/or conditions included? • Is the paper's methodology described in sufficient detail? Are previous studies cited to support and/or validate the paper's methodology? Are the described methods enough for replication by other researchers? • Does the paper adequately explain its data collection methods and establish the validity of its data?
RESULTS & STATISTICAL ANALYSES	• Are the statistical tests used for analysis suitable? • Are all relevant statistics reported for all the data (e.g., standard deviations, p values) Have the data been presented in appropriate units and/or statistically adjusted in a suitable manner? • Are the results reported accurately? Do the results demonstrate statistical significance? • Are the data presented in an easy-to-understand and concise format? Have tables and figures been used effectively to this end? • Do the tables/figures contain unnecessary information?
DISCUSSION & CONCLUSION	• Does this section interpret the results or simply repeat the results? • Is there any other way to interpret and/or explain the data other than that suggested by the authors? • Are important observations from previous studies described in the context of the present results or vice versa? Does the paper discuss previous findings that corroborate and contradict the present findings? • Do the authors discuss their data in a manner that provides insight beyond that presented in previous sections? • Are the unique aspects of the paper's results highlighted appropriately? • Are the paper's conclusions supported by the data/analysis? • Are the limitations of the study listed? • Are the wider implications of the study's results mentioned (e.g., clinical, biological, economic, or policy implications)? • Are future avenues of research mentioned?