

D-6. * Internal validity (for experiments only): How good is the control of threats against the cause-effect inferences? (As a minimum caution, were the subjects randomly assigned to the experimental conditions?).

D-7. Are the characteristics of the participants fully described? Recruitment procedure, number, population characteristics, other features relevant for the research.

D-8. Is the subjects sample defined up the point to allow replications of the experiment?

D-9. * Do the sampling of the experimental units and the characteristics of the obtained samples guarantee the validity of the research?

D-10. * Is the procedure (*e.g.*, apparatus and instruments, stimuli, subjects, task) appropriate for reaching the aims of the research?

D-11. Are the instruments/apparatus described to a good level to facilitate replication? When available, cite commercial product and model. When non available, describe the main features regarding the study. Do not mention details of common apparatus (for example, compatible PC).

D-12. * When novel methods are used: Are they sufficiently described and justified?

D-13. Does the procedure section contain enough details to allow replication of the study?

(Instructions, practice trials, experimental trials, etc.).

D-14. * Are the terms "experiment" correctly used?

· Experiments fulfil two criteria: first, is there a direct manipulation of the independent variable or it is rather indirect (subjects are members of a group because they have the attribute of interest up to the desired degree)? Second, is there a good control of relevant variables?

D-15. * Design quality:

· Experiments: Does the design optimize the possibilities of rejecting the null-hypothesis/Research question?

(Is it better a between or within subjects design? Is it better a factorial than a unifactorial design (one-way design)? Is it better a multivariate than a univariate design? Is it preferable a balanced or an unbalanced design?, and so on.

D-16. Design quality (simple versus complex designs):

· Is it adequate to use a unifactorial and/or univariate design? (Are all relevant factors treated in the right way?).

· Is it adequate to use a factorial and/or multivariate design? (Should a simpler design be more efficient than the one selected?).

D-17. + Is the between/within subjects manipulation the correct one for the research purposes?

D-18. In general, is the experimental design the most suitable for contrasting the hypothesis/Research questions?

D-19. Construct validity:

· Have the reactivity changes been avoided?

b. Auto-reports.

c. Context reactivity.

d. Experimenter expectations.

e. Participants' diffusions of treatment.

· Have the main biases been avoided?

b. Novelty.

c. Compensatory equalization (for example, subjects in the control group can be treated especially because they are in disadvantage).

d. Compensatory competence (for example, subjects in the control group can do their best, because they think they are as good as those of the experimental group).

D-20. + Internal validity: aside from randomization, is there any further explicit control of threats against interval validity?

· Between subjects' designs: Which kind of homogenization techniques have been used?

· Repeated measures designs: Which kind of techniques to control sequential effects have been applied (counterbalance, Latin square, etc.)?

· What controls of context variables (*i.e.*, instructions, experimenter, ambient, etc.) have been applied?

D-21. Internal validity: Is the attrition problem presented and discussed? Are there some indications of a possible relation of attrition and manipulation of the variables?

D-22. External validity:

· Subjects/Independent variables:

a. Is the sample representative of the population?

b. Is there any bias in the sampling process?

· Context:

a. Is the context (lab/field/Internet, etc.) the adequate? Should be better to use another research context?

b. If the context is uncommon (*i.e.*, Internet), is there any mention of its adequacy to the research purposes?

(E). Results and Analysis ***Data Analysis and Use of Data**

- Has the interpretative potential of the data been adequately realised?
- Has the data been used effectively to advance the themes that the paper sets out to address?

E-1. * Do the novelty and meaning of the results make a significant contribution to the literature? Do they justify the research?

E-2. * Are the statistic-research hypothesis/question coherent?

· Have the authors included the relevant analysis for contrasting their hypothesis/question?

(a general analysis for a general hypothesis/question, contrast analysis for specific hypothesis/question, trends analysis for functional relationship hypothesis/question, and so on). Did the authors

check whether the data meet the analysis' assumptions?

· In factorial design, is the analysis of the interaction based on simple effects or interaction of contrast? Which one should be the best for contrasting the hypothesis/question on the interaction?

· When multiple dependent variables have been measured, is the right alternative

E-3. * Data description. Are the main descriptive statistics (averages, standard deviations or standard errors of mean displayed in a Table or a Figure?

E-4. * Is there an adequate description of the analysis methods and techniques?

E-5. * Is there a complete description of the main parameters of the analyses? (For example, if ANOVA was used, are the F value, the degrees of freedom, the mean square error, and the significance level reported? Do all the parameters agree? (For example, are the degrees of freedom in accordance with the number of subjects/treatments?).

E-6. Following APA statistical recommendations: Is the results section adequate?

· Starting with a qualitative description, and detailing after the inferential description of the statistical results.

· Descriptive stats data including (mean, standard deviation or standard error of the mean). Details of contrast analyses should be included (e.g., $F(3, 126) = 6,35; p < 0,05; MSE = 425,657$).

· When a large number of data is reported, it is convenient the use of tables.

E-7. + The units of the analysis have been clearly stated and justified (subjects, groups, etc.)?

E-8. + Are the power and size of the effect computed and discussed?

E-9. * Can the error variances be the cause of results?

E-10. + Can results be the consequence of the poor qualities of the dependent variable (for example, ceiling effects)?

E-11. + Are the inferential techniques used for contrasting the hypothesis/question appropriate? For example:

· Is the between/within manipulation considered in the analysis?

· When non-quantitative dependent variables have been measured, do the categorical data analysis perspective was used?

· In repeated measures designs, is there evidence that assuming non-sphericity hypothesis/question can still be rejected? (i.e., is there an alternative MANOVA, or a Geisser-Greenhouse/Huynh-Feldt approach or similar etc.

· Given the data features (for example, a huge number of zeros, a scarce number of subjects), a non-parametric ANOVA was considered?

· When data do not meet some assumptions of the general linear model, and transformations of data can be an alternative, is the transformation well described and supported in the literature?

· When non-balanced designs, do the authors used the correct Sum of Squares (Type I, II, or III)?

· When incomplete factorial designs, was the analysis appropriate for nested, fractional, etc.?

E-12. + Statistical validity. Is there some evidence that data cannot meet the assumptions of the statistical test? (For example, means and variances are related) If so, is there some description of the results of assumptions test?

E-13. + Statistical validity. Which kind of correction of Type I error has been done? (Bonferroni, Sidak, Tukey test, and son on).

E-14. + Are there any testable predictions that have been neglected?

E-15. + When attrition is bigger than expected, is there any explanation? Is attrition a possible source of observed results?

E-16. + Are the statistical-methodological techniques used in the right way? Are there more analyses than needed?

E-17. + Have statistical test been used in a comprehensive way? Are they applied in a stereotyped way?

E-18. + When novel statistical techniques were used, are there literature references to justify their use?

E-19. + Is the statistical-methodological literature adequate for justifying the reported data analyses?

E-20. How original are the empirical and theoretical findings reported in the paper?

E-21. + When statistical innovations are the key point of the paper, how original they are?

E-22. + Do the authors propose a significant statistical-methodological improvement? (new control techniques, new dependent variables, new analyses).

(F). Discussion (interpretation of results) *

Use of Theory

- Does the paper use theory in meaningful way?
- Does it develop or employ theoretical concepts in such a way as to make plausible generalisations?

F-1. * Is the interpretation of the results and the statistical analysis congruent with the research problem as explained in the introduction section?

F-2. Are all the relevant results discussed?

F-3. * Is the discussion of statistical results in accordance with the limitations of the design (especially when the sample characteristics, the control of relevant variables, and so on, are a matter)? Are there any signs of overgeneralization of the results?

F-4. Are the relevant results summarized at the beginning of the discussion?

F-5. Are the alternative interpretations of the results presented and discarded in accordance with the statistical tests?

F-6. Does the paper place in context the results with those relevant in the literature (especially when contradictory data have been noticed)? Authors should not select only confirmatory evidence from the literature.

F-7. + Do the authors appear to avoid noisy results? (For example, they take as reliable results that in other context should be rejected: positive results because "outliers", subjects that do not meet the learning criterion, null results, and so on).

F-8. Are there any considerations about the limitations of the study (for example, because the selected dependent variable), and/or their implication for future research?

F-9. Is the discussion fluid, it connects the introduction and observed results? Are those arguments *ad hoc*?

F-10. How original and relevant for the literature is the interpretation of the results? Is there any substantive theoretical or empirical contribution?

(G) Critical Qualities *

Critical Qualities

- Does the paper demonstrate a critical self-awareness of the author's own perspectives and interests?
- Does it show awareness of the possibility of alternative or competing perspectives: such as other cultural, social, political, theoretical or intellectual perspectives?
- Does it show an awareness of the practical implications of the ideas it is advancing?

(H). Clarity of Conclusions ***Clarity of Conclusions**

- Are the conclusions of the paper clearly stated?
- Cohesiveness of paper: do the conclusions adequately tie together the other elements of the paper (such as theory, data and critical perspectives)?

(I) . Quality of Communication ***Quality of Communication**

- Does the paper clearly express its case, measured against the technical language of the field and the reading of an academic, tertiary student and professional readership?
- What is the standard of the writing, including spelling and grammar? If you will be recommending publication with revisions, please make specific suggestions or list errors.

IMPORTANT, PLEASE INDICATE

- From an editorial point of view, this paper is of a publishable standard as is.
- This paper requires minor proofing by an colleague or critical friend of the author.
- This paper requires thorough reworking by a professional editor. (For instance, where the author's first language is not English.)

(J). APA format (Considering all the paper) ***Note**

Authors may use any referencing style they choose, as long as it is used consistently and to the appropriate standards. Spelling can vary according to national useage, but should be internally consistent.

G-1. * Do, at least, a 70% of APA norms are covered in the paper?

G-2. * Is the format the correct one? (Consider the general size of the sections, the spacing between text lines, the numbering of pages, the size of page, the margins, the letter type -CG Times).

G-3. * Are the sections of the paper in the correct order?

G-4. * Are all the sections complete? Do all information needed for understanding the paper is present and in the right order?

G-5. * Is the paper clear, structured in a comprehensive fashion? (Organized around a main point, with a clear rationale, and a good level of coherence between the sections).

G-6. The writing style is direct, simple, with technical terms described the first time they appear in the text. Not difficult to follow for a standard reader (non-specialist).

G-7. Is the paper complemented with figures and/or tables to explain complex parts (for example, the procedure)?

G-8. Regarding APA norms, are title, filiations and abstract amenable for publication?

· Title is short and clear, and it contains the main point of the paper.

· Authors name, without reference to their academic position.

· Complete address for correspondence.

· Abstract, in a single paragraph, 200-400 words length, presenting the important parts of the paper: motivation, rationale, main results

G-9. Following APA criteria: Is the reference section appropriate?

- Containing only references to work previously cited in the text.
- When writing papers from journals: Author/s. (year). Title. *Journal, volume*, pages.
(Journal title and volume should be in italics).
- For books: Author/s. (year). *Title*. Place of edition: Editorial. (The title of the book should be in italics).
- For book's chapters: Author/s. (year). Title of chapter. Book Editors. *Title of the book*. (chapter, pages). Place of edition: Editorial. (The title of the book should be in italics).
- WWW based material: Author/s. (year month). Title. *Web organization*. Retrieved from "Web address" (Web organization in italics and web address as hypervincule).

The Brunswick Society Newsletters, 15 (Millenium Issue), Article#17. Retrieved from:

<http://brunswik.org/newsletters/newsletter2000/2000news.html>.

G-10. Following APA norms: Are the citations appropriate in the text?

· Second name of authors and year between parentheses if the citation is part of the text; *e.g.*, “Ramos and Catena previous study (2004)”.


· When cited work is a reference for a statement in the text, second name of the authors and year must be between parentheses separated by commas; *e.g.*, “It has been demonstrated that coffee ingestion alters mood in children, (Ramos, Catena, and Perez, 2004)”.

• If more than one study is referenced, citations must be ordered alphabetically.

* Citations with more than two authors that appear several times in the text must be abbreviated after the first time (e.g., Ramos *et al.*, 2004).

* Citations from different publications with same the same first author and same year must contain lowercase letters to distinguish between them (*e.g.*, Ramos *et al.*,

2004a, Ramos *et al.* 2004b)

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G-11. Following APA criteria: Are the tables, graphs and illustrations adequate? (Authors should respect journal format and unit measures). Are the figures and tables informative and necessary?

G-12. Are there any original, creative or substantial contributions to the vocabulary? If new terms have been introduced, empirical, theoretical or methodological, are they truly needed?

G-13. Are there any creative and original contributions to the format? Are these contributions substantial, useful and justified?

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(K). Documentary sources (citations and references) *

H-1.* Is there evidence of a good knowledge and management of the background literature, both in conceptual and technical aspects? (It is clear that authors know previous work related with the theoretical framework, experimental methodology and effects, or the citations seem to be irrelevant and stereotyped?).

H-2. * Are the citations of previous work accurate? (The information and the citations correspond or at the contrary, cited work seem incompatible with the ideas in the text).

H-3. * Are the documental sources adequate? There is a good amount of work related with the problem under investigation and relevant areas or citations are dispersed.

H-4. * Are the referenced works, scientifically credited? (Most of the citations are from scientific and academic publications and not from other non-scientific resources).

H-5. * Are documental resources updated? (A huge number of the cited papers have been published during the last 10 years).

H-6. Is the cited literature enough and appropriate for the aims of the manuscript? (There should be references to previous work to justify the experiments. The background literature referenced should have a close link with the aims of the research).

H-7. Are the referenced works specific? (Most of the citations come from credited journals specialized on the topic of the research problem).

H-8. Is there evidence of a critical review of previous literature? (There are citations of previous work with hypotheses that are different to those proposed by the authors. There should be no sign of deliberate bias to cite previous research that shares results or hypothesis with the author's point of view).

H-9. Is there a good deliberate selection of documental resources? (References are original and not just copied from other sources).

H-10. Is there a good balance of cited work? (National, international, empirical, theoretical, etc).

H-11. Are there any original contributions related to previous work? (Cited work is highly useful with references that might direct to other kind of resources; *e.g.*, www, technical, material, etc.).

(L). Reviewer's comments *

If any comments regarding overall quality of the paper

(M). Reviewer's Decision *

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