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No solo de publicar viven los investigadores: aprender a revisar artículos científicos

Being a researcher is not only a matter of publishing: learning to review scientific articles

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Resumen: Este estudio, enmarcado en la convocatoria para revisores noveles de *Infancia & Aprendizaje* (I&A), pretende complementar los escasos trabajos desarrollados en el ámbito de los procesos de revisión por pares mediante el desarrollo y análisis de una propuesta formativa diseñada para ayudar a investigadores noveles a iniciarse en el proceso de revisión. Cinco revisores noveles participaron en el estudio. Sus informes fueron analizados y contrastados con los de diez expertos, se describieron sus trayectorias individuales y se indagó acerca de su valoración de la propuesta formativa. Los resultados mostraron algunas particularidades en los informes de los revisores noveles en cuanto al contenido y a su estructura. Destaca la inconsistencia entre la decisión adoptada y el tipo de comentarios; además, algunos revisores noveles adoptaron una posición *opinativa* que no se observó en los expertos. Las trayectorias individuales evidenciaron la utilidad de la propuesta formativa, tanto para aumentar el conocimiento sobre el género como para mejorar los propios informes. El estudio tiene implicaciones tanto para las revistas científicas como para la investigación sobre formación de investigadores noveles.

Palabras clave: publicación científica; investigadores noveles; revisión por pares; formación de investigadores noveles; escritura de informes.

Abstract: This study, which is part of the call for junior reviewers from *Infancia & Aprendizaje* (I&A), aims to contribute to the scarce literature on peer review processes by developing and analyzing a training proposal designed to help junior researchers begin to take part in the peer review process. Five junior reviewers participated in the study. Their reports were analyzed and contrasted with those from ten experts, their individual trajectories were described, and their evaluation of the training proposal was explored. Results showed some particularities in the junior reviewers' reports regarding their content and structure, such as the inconsistency between the decision taken and the type of comments. In addition, the junior reviewers' adoption of a *personal opinion* position was not observed in the expert reviewers. Their individual trajectories showed the relevance of the training proposal, both to increase knowledge about the genre and to revise the reports. This study has implications for scientific journals as well as for the training of junior researchers.

Keywords: scientific publication; junior researchers; peer review; junior researcher training; writing of reports.

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In addition to publishing, researchers also participate, through various channels and by performing different roles, in scientific and disciplinary communities. One of these roles involves acting as a reviewer in the peer evaluation process of scientific journals. While it is common for these journals to rely on their own teams, basically consisting of expert reviewers who are already renowned authors, some recent changes could alter this situation in coming years.

One of these changes is, without a doubt, the exponential growth of the number of indexed journals with peer-review processes, subsidiary to the institutional policies that prevail in these publications for evaluating scientific production. Just as an example, in the past four years, the number of journals indexed in the WOS has grown by 40% (Wang & Waltman, 2016). This growth has resulted in the creation of new editorial teams and an increase in demand for reviewers.

The need for junior researchers to publish, sometimes even during their doctoral training, is another of these changes. This entails that junior researchers are more present in contexts of publication and more likely to participate in peer review processes (Pedrazzini, Bautista, Scheuer, & Monereo, 2014).

Whereas research on learning how to write scientific articles, though scarce, is present in universities (primarily English-speaking), research on learning (and teaching) how to review articles is almost negligible. Aside from studies focused on analyzing the advantages and drawbacks of the peer review system, mostly conducted by editorial teams from journals (Bautista, Monereo, & Scheuer, 2014), research in this field has been carried out in relation to three areas: the identification and characterization of good reviewers, the analysis of reviews as a textual genre, and reviewer training. These areas originate from different disciplinary traditions and, consequently, have had different aims that we will summarize below.

Characterization of good reviewers: who they are and what they do

Studies in this area have mostly focused on: a) trying to identify *good reviewers* (Callaham & Tercier, 2007), and b) analyzing which aspects expert reviewers pay attention to throughout the process of writing their reviews (Matsuda & Tardy, 2007).

In terms of the characterization of *good reviewers,* the results are inconclusive due to variability between reviewers, as well as to the lack of clear criteria for selecting the reviewers, and the poor specificity of the assessment scales that the majority of journals place at the disposal of the associate editors, which reduces their predictive power (Callaham & Tercier 2007). Despite this, factors such as the affiliation of reviewers to prestigious institutions, scientific status as an author (measured in terms of quantity and quality of publications), integration into diverse editorial teams, as well as a rapid response and compliance to deadlines, were associated with those reviewers whose reports were rated "best" (Gasparyan & Kitas, 2012).

Regarding the activities that reviewers carry out as they evaluate a manuscript and write their reviews, Matsuda and Tardy's (2007) study was pioneer. In order to discern what aspects reviewers gave greater attention, they simulated a peer review process and asked two reviewers to think aloud throughout the whole process, which was recorded and subsequently analyzed. The study concluded that identifying the author's voice and their position in the community had clear repercussions, not only in the reviewers' decision regarding the publication of the manuscript, but also in the way they wrote their report.

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Characterization of *review reports* as a specific genre

Regarding the reports' characteristics, after a fruitless period in which the researchers sought to standardize the content and structure to reduce variability (Ammenwerth et al., 2003), research evolved into perspectives in which the report is understood as a specific genre. This genre often remains *occluded* and thus unknown, especially by junior researchers, despite its importance and high conventionality (Fontanet, 2008).

Research on this type of genre —*review reports*— is still limited and has been focused exclusively on experts. There is consensus on accepting that reports from expert reviewers, despite their great variability, tend to include different types of feedback: about the content (*ideological*), about the interaction the manuscript establishes with the reader (*interpersonal*) or about characteristics related to the manuscript, such as format or syntax (*textual*) (Fontanet, 2008; Gosden, 2003; Hyland & Guinda, 2012). As for feedback about content (*ideological*), methodological and conceptual problems, followed by lack of organization and clarity of the writing, are the most frequently mentioned (Sánchez, García, & del Río, 2002; Scheuer, Bautista, Martín, & Pozo, 2009). Feedback about the interaction of the manuscript with the reader (*interpersonal*) and *textual* comments are less frequent (Mungra & Webber, 2010).

Regarding the structure, four moves have been identified in experts' reports (Fontanet, 2008): a) General assessment regarding publication; b) Summary of the manuscript's aims and contribution; c) Critical, evaluative feedback, often following the manuscript's structure and sometimes accompanied by suggestions for improvement (Gosden, 2003), and d) Closing or conclusion and recommended decision. The section containing the critical feedback is not only the most extensive, but also the most difficult to write (Fontanet, 2008).

The decision to accept or reject also influences the expressions and discursive mechanisms that reviewers use. Thus, with rejection, the language is more prescriptive and impersonal, whereas acceptance leads to a greater use of *self-reference* (reviewers and editors use the first person singular) and adopt a more collegial argument than evaluative position (discussing with the authors about the options taken and justifying the suggested changes) (Belcher 2007; Gosden, 2003; Hyland & Guinda, 2012; Paltridge, 2013; 2015; Sánchez et al., 2002; Samraj, 2016; Scheuer et al., 2009). For some authors, acceptance or rejection also affects the communicative purpose and structure of the review reports (Samraj, 2016). Additionally, reviewers' origin and mother tongue (in the case of journals in English) have been associated with a differential use of discursive mechanisms and even with the purpose of the review reports (Englander & Lopez-Bonilla, 2011).

Unfortunately, we do not have data on whether the reports written by junior reviewers have different characteristics or conform to the same structure and content canons as reports written by experts. Some authors have highlighted the difficulty that junior authors face in the comprehension and adequate interpretation of different types of reviewers' comments, since they do not yet possess the necessary socio-cultural sensitivity and pragmatic-linguistic competence to interpret the meaning and prioritize the relevance of comments that seem like simple suggestions or observations, but for reviewers are clearly directives for change (Fontanet 2008; Gosden, 2003; Paltridge, 2015; Samraj, 2016). This can lead to junior reviewers not considering those comments in their reports either; this is one of the aspects that we address in this study.

The training of junior reviewers in peer review processes

Research on the training of junior reviewers has been considerably more limited than research on the characterization of reports as a specific genre. In this area, Guilford's (2001) pioner study is notable as it was designed so that his undergraduate students could better know the scientific publication process and the peer review process. Throughout the course, the editorial process

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involved in the publication of an article was simulated. Students wrote their article, received -and gave- feedback to peers in their role as reviewers, revised their texts and received the editorial decision. Students who participated in the study wrote texts that were positively evaluated by their professors, learned more about the content, and understood the requirements and characteristics of the peer review process (Guilford, 2001).

Most recently, Houry, Green, and Callaham (2012) conducted a study in the field of medical publication. Over the course of four years, they randomly assigned junior reviewers from the *Annals of Emergency Medicine* journal to two groups. Those in the first group received material developed by the editorial team (Lovejoy, Revenson, & France, 2011) that detailed the basic characteristics of review reports. Those in the experimental group received this material plus support from a mentor, a renowned and experienced senior reviewer, who paired up with the novice during the review of the first three manuscripts assigned to him. The junior reviewers could to share their reports and discuss them with their mentor via email or by phone. After the analysis of nearly 500 reports from 24 pairs in each group (intervention and control), the results were not as expected: reports from reviewers in the mentoring group were not significantly better than reports from reviewers in the control group.

The mentors' lack of training, as well as the absence of common guidelines for writing the reviews, may explain these results. Educational research has shown that it is not enough to be an expert to teach or to help others perform a particular activity; it is also necessary to provide support and help that guide the practice in order to promote appropriation of new knowledge and autonomy (Monereo, Pozo, & Castelló, 2001). This would also explain why other studies using tutorials, courses, or workshops (often online), unidirectional and based on the transmission of information, did not achieve changes in the reports from reviewers who participated in these courses (Schroter et al., 2004). Paltridge (2013) seems to reach the same conclusion when suggesting the need to promote the development of junior reviewers through explicit reflection on their own practice, guided by other experts, who share their reports throughout the entire process.

These considerations ground the training proposal that we have designed and analyzed in this study. Despite the interest of some institutions and editorial journal teams (for example, Davidoff, 2004), this type of training proposal has not been developed yet and, therefore, there has been no research aimed at analyzing its viability and effectiveness. In most of the cases, reviewers learned the role on their own, through trial and error processes, with their own experience as authors as the most important (if not the only) source of learning to act as reviewers (Davidoff, 2004; Paltridge, 2013). This lack of support in learning the role of reviewer is surprising if we take into account that having good reviewers is essential for guaranteeing the quality of peer review processes.

This study aims to contribute to the scarce literature on peer review processes in scientific publications, by developing and analyzing a training proposal designed to help junior researchers begin to take part in those processes. Below, we describe in detail the training process that is the basis for our study.

Training process: Context of the study

The study is part of the call for junior reviewers issued by I&A in July 2015 (see Bautista & Castelló, 2015). The objective of this call was to provide the junior researchers the opportunity to participate in a training process aimed at learning how to review manuscripts.

In the call, a junior reviewer was defined as a researcher having at least one publication in an indexed journal (as the sole author or in collaboration), but without experience as a reviewer in a scientific journal. They could be doctoral students or recently graduated doctors (after January

2015) having a good command of both Spanish and English (I&A publication languages). The call conditions specified that all the selected articles would be reviewed by three anonymous reviewers, two of them experts, members of the editorial team, and a junior reviewer selected from all the candidates. The call also stated that the reports from expert reviewers would be shared —anonymously— with the junior reviewers and that data generated during the peer review process —review reports and a follow-up questionnaire— would be analyzed and published. Finally, candidates were informed that submitting a candidacy implied accepting its terms and conditions.

The training process, in line with recommendations from Paltridge (2013), was based on promoting and guiding explicit processes of reflection on the writing of review reports. This reflection based on participants' own practices, in other words, the reports initially written by the junior reviewers. Thus, the junior reviewers compared their review report with anonymous reports from two expert reviewers who had evaluated the same article. To do that, they were provided with a comparison guide for review reports —CIREV— (for the initials in Spanish see Annex 1), indicating the key aspects to bear in mind in relation to the content and the discursive resources.

In the *content* section, help was aimed, in the first place, towards contrasting comments that summarized the manuscript, its objectives, and its contributions or strengths. Next, *critical comments* related to each section of the manuscript were explored and the section ended with a question concerning *format* aspects.

In the section relating to *discursive structure* and *resources*, the guide helped junior reviewers to focus on how the reports were organized (Fontanet, 2008). It also aimed at helping them analyze the reviewers'*voice* (Matsuda & Tardy, 2007), that is, the *position* adopted when writing the report, as well as the way they *interacted with and involved the reader of the report.* Aspects concerning the *clarity* and *precision* of their critical comments, the presence of *suggestions for change* and *arguments* to sustain them were also included in this section (Gosden, 2003; Fontanet, 2008; Sánchez et al., 2002; Scheuer et al., 2009). For each one of these aspects, the junior reviewer had to analyze the similarities and differences between reports and decide on the changes they thought necessary to introduce into their initial report, as well as their justification. Finally, in the last two sections junior reviewers evaluated and argued the global quality of their report as well as the similarity with the experts' reports for each one of the previous sections through a Likert-type scale (from 1 to 7) and an open-ended question.

After completing the guide, participants had the opportunity to revise their own report before it was sent to the author (also a junior researcher). The responses to the guide, as well as the review report —initial and revised— were sent to the editors of the call. The author received the synthesis report written by the editors together with three review reports: the revised report from the junior reviewer and the two reports from the expert reviewers. This process was repeated for each round of revision (two for each one of the articles).

At the end of the training process, junior reviewers answered an open-ended questionnaire designed *ad hoc* in which they were asked to evaluate the training process and the support received as well as their own learning process and the difficulties associated with it (see Annex 2).

In this context, we were interested in analyzing in detail the characteristics of the junior reviewers' reports, in order to establish their distinctive traits and those aspects in which they differed from the experts' reports, two issues that have not been addressed in previous research. This seemed to be a preliminary step, necessary for describing in detail how reports evolved throughout the training process. We also wanted to hear participants' views on this process.

Therefore, the specific aims of the study were:

1. To analyze the characteristics of the reports written by the junior reviewers in the different rounds of revision and to compare them with those from the expert reviewers.
2. To describe the individual trajectories and evolution of the junior reviewers' reports

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throughout the training process.

3. To analyze how the junior reviewers evaluated the training experience.

Method

Participants

A total of 87 male and female candidates responded to the call launched by I&A to participate as junior reviewers (Bautista & Castelló, 2017). Among those candidates, we selected the six whose profiles best matched the topics of the six manuscripts that had been selected to begin the process of peer evaluation in the call for junior authors (Bautista & Castelló, 2015). One of the selected manuscripts was rejected in round one of the evaluation process, whereas the other five completed two rounds of revision before being accepted. Therefore, five junior reviewers participated in the study, all recently graduated doctors, with some experience as authors of scientific articles, but none as reviewers (see Table 1).

Table 1
Participants' characteristics

Junior reviewer	***Names****	***Origin***	***Thesis defense date***	***Pub. No***
R1	Amanda	Argentina	2016	3
R2	Noemí	Spain	2014	3
R3	Jaime	Spain	2013	6
R4	Raquel	Spain	2013	4
R5	Fede	Colombia	2015	2

*Names have been changed to ensure anonymity

Data collection

Data were collected throughout the entire review process of all the manuscripts included in the special issue (from April 2016 through January 2017). All the reports were uploaded to the *Taylor & Francis* system, as is common for the I&A peer review processes. The comparison guide for the reviewers' reports —CIREV— and the final questionnaire were sent by email.

Data analysis

To respond to the first aim, which involved the characterization of junior reviewers' reports and their contrast with the experts' reports, we followed a mixed-method process which combined qualitative and quantitative analyses. First, after iteratively reading all the reports to get to know their content in relation to the sections from the CIREV guide, we designed a rubric that categorized the aspects to be evaluated for each of the sections (content, structure, and discursive resources). These categories, generated from the results of previous studies as well as from our data (Fontanet 2008; Samraj, 2016), were discussed until consensus was reached with respect to their definition and levels. Finally, to ensure reliability of the rubric, the first two authors independently analyzed one-third of the reports (n = 11). The degree of agreement ranged

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between 88.9% and 100% depending on the categories, which in this type of study could be considered to be quite high. Once the reliability of the system of categories was established, we analyzed the rest of the reports. The few disagreements that occurred were discussed until a consensus was reached.

The resulting rubric for the analysis of review reports —RANRE— contained the following aspects (see Annex 3):

In relation to content, the rubric assessed the presence of feedback regarding the manuscript's *aims* and *contributions* —or *strengths*—, and *minor comments* (e.g., format). For each section of the manuscript (introduction, method, results, discussion and conclusions), we defined categories related to aspects that research highlighted as relevant in each of those sections (e.g., justification of the topic, in the introduction, or completeness of the discussion) (Gosden, 2003; Samraj, 2016; Sánchez et al., 2002). In addition, for each of these categories, comments of the reports were analyzed in relation to the cross-cutting aspects they referred to (organization and clarity, appropriateness of the decisions taken, and amount of information). Comments were also classified into critical (aimed at improving) and positive (praise-oriented) comments. Consequently, each category related to the manuscripts' content was codified into three levels: not mentioned, critical comment, and positive comment.

In relation to the report's *discursive mechanisms*, we took into account the *structure*, the use of *resources* to make the *voice* of the reviewer visible, and the presence of *arguments* to support the critical comments.

a) *Structure* of the reports. We analyzed whether the reports included the moves identified by previous research (Fontanet, 2008): an introduction, including a summary of the work's aims, and the positive aspects, development by sections, differentiation between major and minor comments, and a closing (Fontanet, 2008; Samraj, 2016). The presence or absence (1 or 0) of each of the four moves was recorded (total scale from 1 to 6).

b) *Voice* of the reviewer (Matsuda & Tardy, 2007). We distinguished three aspects:

- *Position*: This refers to the position the reviewer adopts when writing the report. To the two positions established by Sánchez et al. (2002) —*critic evaluation* and *collegial argument*—, we added a third that we called *personal opinion*, which emerged from the junior reviewers' reports. The reviewers who adopted a *critic evaluation position* focused on evaluating or critically judging the different sections and aspects of the manuscript to emphasize what was wrong or needed to be changed (e.g.: "a review of international studies is missing"; "the analysis process is not clarified"). On the other hand, those that adopted an *argumentative position* provided arguments to support their evaluation as if it were a discussion among peers (e.g., "it is possible that this deficit is because what most interested the author was to illustrate the mechanisms in a particular case [...]. This would explain why changes to the first version did not sufficiently respond to the suggestion I made in this regard in my previous review report [...] "). In contrast, the reviewers who adopted a *personal opinion* position used expressions such as: "I would like" or "from my point of view" in which their perspective as reviewers was transmitted as an opinion often not supported by evaluative judgements or by arguments (e.g.: "I feel it is appropriate to offer more information about the way in which data were gathered"; "from my point of view, it would be interesting to know who designed the instrument, how many items it contained, the way in which it was administered, etc."). For each report, only one position was assigned taking into account the position adopted throughout the text.

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- *Presence of the reader*: comments aimed at making evident the interpersonal situation involved in writing a review report which, by definition, is addressed to the authors of the manuscript (Fontanet, 2008; Gosden, 2003). This includes explicit mention of the authors, as well as the use of resources such as rhetorical (e.g., "I wonder…") and direct questions addressed to them (e.g., "Why is the age of the participants not included?"). This category was coded into two levels: presence or absence of the reader throughout the report (1 or 0).
- *Presence of the author* in the report: in this case, we assessed whether the report was written in the first person singular, in the plural, or whether impersonal forms were used (Scheuer et al., 2009). The presence or absence of the author was codified in the same way as the previous category (1 or 0).

c) *Suggestions for improvement:* we assessed the extent in which reviewers offered indications or guidelines to solve the problems highlighted in the work. A scale from 0 (never offers suggestions for improvement) to 3 (offers suggestions for improvements for all the critical comments) was used.

d) *Presence of arguments:* we assessed to what extent the comments made in the report were supported with arguments. A scale from 0 (never provides arguments for the critical comments) to 3 (always provides arguments for the critical comments) was used.

Once the reports from junior and expert reviewers were analyzed, the frequencies and percentages of each one of the categories from the rubric were counted and their differences and similarities were compared statistically.

To describe the individual trajectories of each one of the junior reviewers (second objective), two complementary qualitative analyses were carried out. First, we compared their reports (analyzed with the RANRE rubric, following the procedure described in the previous paragraph) with the assessment that participants performed using the CIREV guide. This allowed us to compare, in both rounds of revision, the characteristics of their initial reports and the changes in the revised reports with their perception regarding the need to include such changes and the differences they identified between their reports and those from the experts. With this information and the suggestion regarding the acceptance or rejection of the article, we composed the individual trajectories of each junior reviewer in which we described the evolution of their reports, along with their perceptions regarding changes in those reports.

To respond to the third aim, the content of the junior reviewers' responses to the *questionnaire that evaluated the experience* was categorized. To ensure reliability of the analysis, we followed the procedure described for the first objective.

Results

The five manuscripts went through two rounds of revision with reports from the reviewers. Thus, we had 19 reports[3] from 10 expert reviewers and 18 written by the 5 junior reviewers who participated in the study: 5 initial reports and 4 reviewed in round one, plus five initial reports and four reviewed in round 2. Table 2 shows the decisions suggested by the reviewers for each article.

Table 2
Decision recommendations from the expert and junior reviewers in each round

	Round 1			Round 2		
	Expert 1	Expert 2	Junior	Expert 1	Expert 2	Junior
R1 article (Amanda)	Major C.	Major C.	Major C.	Major C.	Major C.	Major C.

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R2 article (Noemí)	Major C.	Major C.	Minor C.	Major C.	Accept	Accept
R3 article (Jaime)	Major C.	Major C.	Major C.	Minor C.	Minor C.	Accept
R4 article (Raquel)	Major C.	Major C.	Major C.	Major C.	Minor C.	Minor C.
R5 article (Fede)	Major C.	Major C.	Minor C.	Minor C.	Accept	Accept

Objective 1. Characteristics of junior reviewers' reports compared to those from the expert reviewers

As can be seen in Table 3, the junior and expert reviewers focused on distinct *sections of the manuscript* and their focus also changed from one round of revision to the other. In round one, the main differences were found in the introduction ($U = 9.00$; $p = .040$) and in the results ($U = 9.00$; $p = .040$), where expert reviewers commented on twice as many aspects as the junior reviewers. In turn, junior reviewers commented on more aspects of the method, although the differences were not significant ($p = .134$). In round two, reports from the junior reviewers included fewer comments for improvement than in the first, in most of the sections. The differences between reviewers regarding the results were maintained, and differences in comments devoted to the introduction increased: expert reviewers commented on more than one aspect per report, whereas only one junior reviewer made a suggestion for improvement in this section. In this round, the junior reviewers also suggested fewer aspects for improvement than the experts with regard to the discussion. However, the differences observed in these sections were not significant.

Finally, most of the junior reviewers proposed improvements of the wording and format, especially in round one, an issue that was mentioned in very few of the experts' reports.

Table 3

Distribution of the comments for improvement by sections in relation to type of reviewer and round

	Reviewer	Comments by report R#1		Comments by report R#2
Introduction	Expert	55%		41.75%
	Junior	25%		5%
Objectives	Expert	33.33%		3.70%
	Junior	26.67%		6.67%
Method	Expert	35.83%		17.59%
	Junior	45%		16.67%
Results	Expert	57.5%		27.78%
	Junior	25%		15%
Discussion	Expert	60%		41.67%
	Junior	45%		20%
Format	Expert	60%		55.6%
	Junior	100%		80%

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Reports from the expert and junior reviewers also differed in terms of *positive comments*. Junior reviewers wrote positive comments in both rounds of revision, regardless of the editorial decision for the manuscript. In contrast, in the expert reviewers' reports, most of the positive comments appeared only in round two, generally associated with changes in decisions (from rejection or major to minor changes), and only in relation to certain aspects from the introduction (3) and from the method (5). In turn, in round one junior reviewers highlighted a total of 13 positive aspects (2.6 per report), especially in the introduction ($U = 12.00$; $p = .040$), results ($U = 15.00$; $p = .038$), and discussion, and 17 in round two, again in relation to the introduction and discussion, but also to the method. Altogether, the reports from junior reviewers included the same number of positive and critical comments in relation to the discussion, and even more positive than critical comments regarding the introduction.

Table 4
Distribution of the type of comments for improvement in relation to reviewer type and round

		Type of comments by report R#1	Type of comments by report R#2
Organization and clarity	Expert	35%	12.5%
	Junior	37.5%	22.5%
Relevance	Expert	45.38%	28.2%
	Junior	26.15%	4.61%
Quantity	Expert	58.33%	33.33%
	Junior	60%	23.33%

For the *type* of critical comments or improvement suggestions, in round one, the reports from junior and expert reviewers were similar in relation to the need to improve the *organization and clarity* ($p = .950$) of the manuscripts or the *amount of information* ($p = .753$) (see Table 4). However, the junior reviewers mentioned fewer aspects related to *appropriateness* than experts did ($U = 9.00$; $p = .045$). In round two, these differences increased as expert reviewers continued questioning the *appropriateness* of certain decisions made by the authors, while the junior reviewers ($U = 3.00$; $p = .039$) highlighted more positive than negative aspects in relation to *appropriateness* (a total of 1.6 per report, an amount similar to that from the previous round: 1.4).

We also observed differences between junior and expert reviewers with regard to the type of positive comments. In round one, junior reviewers commented on positive aspects related to *clarity* and *organization* (12.5%), as well as to *appropriateness* (10.77%), in greater proportion than the experts (2.5% and 1.54%, respectively). In contrast, in round two expert reviewers made a greater number of positive comments over the organization and clarity of the manuscripts. The largest differences were found in relation to the *appropriateness* and *amount* of information (experts had 3.38% and 1.83% of positive comments in these categories, with 12.3% and 20% from junior reviewers). Nevertheless, none of these differences were significant.

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Table 5
Characteristics of reports from junior and expert reviewers regarding the use of discursive resources

		By report R#1	By report R#2
Structure (6 items)	Expert	55%	40.74%
	Junior	60%	50%
Presence of suggestions (0-3)	Expert	83.33%	85.19%
	Junior	86.67%	60%
Presence of argumentation (0-3)	Expert	70%	66.67%
	Junior	33.33%	13.33%
Authors (yes/no)	Expert	80%	44%
	Junior	40%	40%

As can be seen in Table 5, the junior reviewers' reports were quite similar to those from the experts in terms of their *structure* in both rounds ($p = .565$), as well as in the *suggestions for change* offered to the authors in round one ($p = .629$). In contrast, in round two the experts offered more *suggestions* than the junior reviewers. The biggest differences, however, were in reference to the *level of argumentation* for justifying the critical comments, especially in round two ($U = 3.00$; $p < .01$): junior reviewers' reports showed low levels of argumentation, whereas the experts' reports showed average levels.

On the other hand, in round one most of the expert reviewers *addressed the authors* in their reports, whereas this occurred in only two reports from junior reviewers, although these differences decreased in round two (see Table 5).

With regard to *self-reference*, most of the experts (seven in round one and six in round two) used the first person singular in their reports. For their part, junior reviewers used the impersonal style (N = 2) and the first person singular (N = 2) in round one, whereas in the second round, most (N = 4) used the first person singular, perhaps due to the fact that comments in this round were less critical.

Finally, concerning the *position* of the reviewers, we observed that while both the expert and junior reviewers adopted a *critic evaluation position* only some expert reviewers adopted a *collegial argument position,* and the *personal opinion position* was adopted by only two junior reviewers. These differences remained in the two rounds, despite two expert reviewers switching from a *critic evaluation* position to a *collegial argument position* in round two, and one junior reviewer switching from a *personal opinion* to a *critic evaluation position* in round two.

When assessing the degree of similarity in their reports with those from the experts, in general the junior reviewers believed that their reports were quite similar to those from the expert reviewers (5.32 over 7 on average in round one and 5.4 over 7 in round two). In round one, they mentioned the results (N = 2), and the introduction (N = 1) as the most differentiated sections. In contrast, in round two, all the junior reviewers mentioned the discussion and conclusion sections as the most different, with the exception of one who mentioned the introduction and the results

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again.

It should be noted that the junior reviewers granted greater similarity to aspects relating to the use of *discursive resources* than to content or structure, with the only exception being *level of argumentation* in round one (M = 4.68). On the other hand, in both rounds, three of the reviewers considered that some aspects of the experts' reports could be improved: in round one, they thought that the experts could have provided minor comments, regarding the format and, in one case, comments relative to the theoretical framework used in the manuscript. In round two, one reviewer pointed again to the formal aspects as a possible improvement in the experts' reports, whereas the other two suggested incorporating more examples, recommendations, and arguments.

Aim 2. Trajectories and evolution of the junior reviewers' reports throughout the training process

Amanda's trajectory (R1)

Amanda's first report suggested major changes, in line with the editorial recommendation from the two expert reviewers. The report followed a very clear structure, providing comments for each one of the manuscript's sections, although of a different nature. Most of the comments about the *method* and the *results* were related to format or to request that information be added, whereas in the *introduction* and *discussion* the *relevance* of those sections was questioned. Although these observations were shared by one of the expert reviewers, their level of precision and depth, as well as *the argumentation level*, were very different.

Unlike the expert reviewers who positioned themselves as *evaluators*, Amanda adopted a *personal opinion position* in her report: "I would be interested to know the reason why the analyzed sample is lower in number than the number of participants." She identified most of the differences in relation to the *content* of the comments; however, she did not detect those concerning the *use of discursive mechanisms* and the comments that she added in her review report were copied and paraphrased from the expert reviewers' reports. She evaluated her report positively because of the similarity of her comments with those from the experts, although she admitted that hers contained fewer examples and were formulated with less depth.

In round two, Amanda coincided with the expert reviewers in asking again for major revisions because she considered that some of the limitations commented on in round one were not addressed by the author. However, on this occasion most of her comments were minor: more specific, focused on particular sentences from the manuscript (an aspect that she acknowledged having 'learned' from the previous round of revision), but comments were not argued more. On a rhetorical level, Amanda's second report was identical to the one from the previous round. In contrast, the expert reviewers, despite maintaining their *critic evaluation position*, hardened their positions. They switched to the use of an *impersonal style*, and replaced arguments with references to the report from the previous round ("it is not acceptable to claim that almost no scientific literature exists on this topic"). These aspects were not identified by Amanda, who, therefore, did not modify her report since she considered it to be "very broad, with many examples and specific recommendations".

Noemí's trajectory (R2)

Noemí's first report asked the authors for minor changes, as opposed to the suggestion for major changes from the expert reviewers. Noemí wrote a structured report including various comments praising the work and suggestions for minor changes regarding the format and grammar. She

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only wrote more in-depth comments on the *organization* of the method and the lack of information in the data collection. She adopted a *personal opinion* position, and the report was written in the *first person singular*, but without being explicitly addressed to the *authors*, and included *suggestions for change* that were not *argued* or *justified* in any instance. Noemí did not detect differences in the use of *discursive mechanisms* or in the different *positions* adopted by the expert reviewers, but she did acknowledge that the experts' reports were more critical of the manuscript, especially in relation to content and depth of the comments. However, in her revised report she only incorporated some minor comments —indicated by the experts— and eliminated the positive comments about the clarity of the results. She gave her report a medium-high score, arguing that it was her first review report, although she acknowledged that the quality of her report was far from that of an expert reviewer's report.

In round two, Noemí coincided with one of the expert reviewers in recommending that the manuscript be accepted, whereas the other once again recommended major changes. The characteristics of this second report —*minor suggestions* written from a *personal opinion* position—, as well as her analysis and evaluation —centered on the differences regarding *content* that were not included in the revised report— were similar to those from the previous round. She evaluated her report with an average score, lower than the previous report, stating that she had focused on "seeing if the changes suggested in the integrated report had been included in the new version of the manuscript, whereas the expert reviewer took into account not only those issues, but also considered others". She also believed that in the first round she had been able to write more and more useful suggestions to the author.

Jaime's trajectory (R3)

The first report from Jaime coincided with those from the expert reviewers in recommending major changes. In this first report, Jaime made some positive comments, especially praising the organization and interest of the results, but he also made critical comments in all the sections, most of them directed at the need to operationalize and to better describe the theoretical framework. The report did not contain sections nor a closing paragraph, and was not explicitly addressed to the authors of the manuscript. In addition, the use of *self-reference* as well as the *position* adopted by Jaime revealed a certain inconsistency: he alternated the first person plural with the impersonal style, sometimes from a *critic evaluation position*, whereas in others he adopted a *personal opinion position*. In the analysis he mentioned most of the similarities and differences between his report and the experts' reports in relation to *content* and the *use of discursive mechanisms*, but did not detect differences in the positions adopted by each reviewer. Although he mentioned some possible changes, he did not revise his report, arguing that it was already a sufficiently complete report.

In round two, Jaime proposed accepting the article without making any critical commentary, in contrast to the expert reviewers who suggested minor changes. The report, much shorter than the previous one, briefly alluded to the changes introduced into the manuscript in response to the suggestions he gave in the first report. This time, unlike in the first report, he did adopt a *critic evaluation position*, he used *self-reference* —first person singular—, and explicitly addressed *the authors* of the manuscript. When comparing this second report with those from the expert reviewers, he again omitted the differences in the *position* adopted by each reviewer and, although he detected most of the discrepancies in the content, he evaluated the reports as being very similar (6/7), and only changed three words in his report. He argued that, despite that some of the expert reviewers' comments could improve the quality of the manuscript, "as it is, it deserves to be published; and the recommendations from the other reviewers do not go beyond including minor changes."

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Raquel's trajectory (R4)

In round one, Raquel coincided with the two expert reviewers in suggesting major changes for the manuscript. Her report, much shorter than the experts' reports, asked for relatively minor modifications in all of the manuscript's *sections* except for the *discussion*. It was an unusual report because of its letter-like header ("Dear authors"). Despite this, the report was written in an impersonal tone, without explicitly addressing the manuscript's *authors*. Just like the expert reviewers, the position adopted by Raquel was *critic evaluation*, but her comments were less detailed, and despite providing suggestions for change, she offered no arguments to justify the need and the sense of the requested changes. When comparing the three reports, Rachel detailed one by one the comments made by the expert reviewers, and selected some to include in her review report. She detected few differences in relation to the *discursive mechanisms* and, although she acknowledged that her report should provide more precise suggestions, upon revising it she only added very artificial comments copied verbatim from one expert's report. She assigned a medium-high score on her report, saying the following: "I have commented on the main aspects for improvement and agree with the suggestion that the manuscript's authors should make major changes."

In round two, Raquel coincided with one of the expert reviewers in suggesting minor changes, whereas the other still required major changes in the manuscript. The report from round two was much more concise than the one from the previous round, but very similar as to the *type of comments* and the *use of discursive mechanisms*. When comparing it with the experts' reports, just as in the previous round, she focused on differences in the content, without detecting those related to the use of *discursive mechanisms*. In her revised report, she again copied or paraphrased comments from the expert reviewers, mostly relating to the *introduction* and the *results*. Despite these changes that lead her to question central aspects of the manuscript and to double the report's length, she marked the degree of similarity of her report with the experts' reports and the global quality of her report with a high score (6/7).

Fede's trajectory (R5)

Fede's first report requested minor changes, as opposed to the suggestion for major changes from the two expert reviewers, although his comments were in line with the type of revisions he requested. His comments, in the form of questions, were minor in nature and focused on requesting more information in all the sections except for the *discussion*. Fede was, in fact, the only junior reviewer who did not comment on all the manuscript's sections. His report presented a prototypical structure, although without a closing comment. Despite being written in an impersonal style, he explicitly addressed the manuscript's *author* and adopted a *critic evaluation position*. When comparing his report with those from the experts, Fede carried out a detailed reflection, identifying the main similarities and differences in the *content* as well as in the *use of discursive mechanisms*, including the different positions of the reviewers. Consequently, Fede conducted a thorough revision of his report that, unlike the rest of the junior reviewers, did not consist of only adding information but involved rewriting most of the report, introducing changes in the type and depth of the comments and in the discursive resources. The revised report was written in the *first person singular* and included a *closing commentary*, although his critiques and suggestions for change were still concise and mostly devoid of arguments. He gave his report a medium-high score that he justified by the lack of depth in the review and of more developed arguments.

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In round two, Fede coincided with one of the expert reviewers in his proposal to accept the manuscript, in contrast to the other expert who still requested minor changes. In his report, he reviewed the manuscript's sections and praised the resolution of comments raised in round one, again from a *critic evaluation position* and, just as in the report from the previous round, using the *first person singular*. These changes, according to Fede himself, were incorporated as a result of the analysis of the reports in the previous round. In this new comparative analysis of the reports in round two, Fede mentioned greater similarities between his report and the experts' and only added a comment in relation to the results. His self-evaluation was better than in the previous round, admitting that this report had been easier. On this occasion he believed that the "observations had been properly presented, which implied clarity and coherence and precision".

Aim 3. Evaluations of the training experience from the junior reviewers

All participants coincided in evaluating the experience as very useful for their training as researchers. The aspects that stood out as most relevant in their training as (future) reviewers, but also as authors, were the following:

- Learning about the review process "from the inside";
- Better understanding of the characteristics and the writing of review reports;
- Contrasting their ideas and the different versions of the reports with more experienced professionals;
- Better understanding of the central characteristics that manuscripts must possess in order to be approved for publication

From their perspective, these lessons were mediated by writing the review report, but above all by having had access to reports from more expert reviewers and to the comparative analysis with their own report. This provided them with different models and the suggestions from the guide helped them to understand the decision-making process that experts followed. The following example is illustrative of these comments:

> The opportunity to compare comments with other professionals, in addition to following the detailed guide, was very useful for my training. Not only did it allow me to delve deeper into the reviews, but I also become aware of the things that I had not paid attention to, and above all to see whether my comments were in the same direction as others, the clarifications, etc. I am completely satisfied with the call. (Amanda).

However, they also mentioned some difficulties, most in relation to the workload and time management (the "workload involved in writing a good in-depth report"- Jaime). One of the junior reviewers highlighted the difficulties involved in drafting a report that is useful to authors, whereas another mentioned the difficulty of expressing oneself clearly and directly, as well as how a lack of knowledge makes it difficult to provide suggestions for improvements in some cases.

Finally, one reviewer commented on the challenge of preserving her own voice as a reviewer when comparing her report with those from the expert reviewers:

> [The main difficulty was] to adopt a position; when having the observations from the expert, they tended to influence one's own opinions. […] The exercise with the coincidences and differences between the reports helped to direct one's own style, [although] there was a tendency to imitate when the models developed by the experts are there (Fede).

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Finally, as improvements for the training, two participants mentioned it could be good to receive greater feedback about the differences between the reports and more guidance in some aspects such as organization, format and length of reports ("Perhaps an 'evaluation of the reviews' by a third party that reflected the similarities and differences between the reviews from the junior and expert researchers could be included", Jaime).

Discussion

This study focuses on junior reviewers training through guided and explicit reflection of revision reports, an issue that research has not yet explored. We were interested in analyzing not only the characteristics and the evolution of the revision reports but individual trajectories of the junior reviewers throughout the training process, in addition to knowing their evaluation of that process. Ultimately, the study aims to contribute to the development of early career researchers in a key aspect of scientific publishing: peer review processes.

The results reveal some particularities of junior reviewers' reports that are particularly relevant when contrasted with the experts' reports. In terms of content, the comments from the junior reviewers primarily highlighted aspects related to the amount and clarity of information in the method section, paying considerably less attention than the experts to the introduction and the results, especially in review round two. As a whole, they were reports that could be described as inconsistent because the decision taken was not closely related to the type of comments. Thus, although they recommended major changes, they included positive comments or praise and their critical comments or suggestions for improvement referred to minor issues, wording, or format. In contrast, in experts' reports, these comments did not appear until they modified their evaluation, from major to minor changes, usually in round two, a result similar to that found by Scheuer et al. (2009). Lastly, in their reports junior reviewers included comments about the amount of information or clarity of the manuscript as much as the experts, but the same did not occur with comments regarding appropriateness. The junior reviewers showed certain difficulties in discriminating what information was appropriated and their reports incorporated less critical and more positive comments in relation to this dimension. In summary, experts' comments about the content adhered to the results from previous research (Gosden, 2003; Sánchez et al., 2002; Scheuer et al, 2009), whereas the junior reviewers were less consistent and referred to minor issues relating to different and unusual sections, such as the abstract.

Regarding the structure, not all of the moves identified by previous research on expert reviewers appeared in the junior reviewers' reports (Fontanet, 2008), which were more guided by the structure of the manuscript than by their evaluation of it. Thus, for example, some began their report with comments on the abstract, probably because it was the section of the text that appeared first, whereas in other cases, minor comments were mixed up with major comments, as was the order of their appearance in the text. The junior reviewers strictly followed the structure of the manuscript, whereas the experts could skip any sections or group others together depending on their comments and assessment of the manuscript.

The level of argumentation was lower in junior reviewers' reports than in the experts', especially in round two. When the reviewers also adopted a *personal opinion position*, authors might have found it difficult to interpret the requested changes. Curiously, previous studies have shown that junior authors have difficulties interpreting reports from expert reviewers due to their lack of knowledge regarding the specific discursive mechanisms, specific of this genre, and the intention of certain suggestions (Fontanet, 2008). While it is true that several of the junior reviewers adopted clearly evaluative positions, none adopt an collegial argument position. This position is probably the most complex to manage because it involves placing oneself on the same

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level as the manuscript's author and formulating one's own arguments (from the reviewer) rather than critiques or judgments about the content, adopting a dialogical style in which the author is able to feel involved (Samraj, 2016; Sánchez et al., 2002). The differences were also remarkable in the use of resources for including the reader in the discourse. This is probably related to the tendency of junior reviewers to use the impersonal form in their reports, perhaps as a way of approaching the specific discourse of this genre, which from their perspective is perceived as remote and technical.

In relation to the trajectories and evolution of the junior reviewers, it can be inferred from the results that the training and, more specifically, the opportunity to contrast their reports with those of the experts who had evaluated the same manuscript, helped them raise awareness of the key elements of the review reports and their difficulties in writing those reports. Even so, it is obvious that it was easier for participants to identify those aspects of their reports that required revision regarding the content than those that refered to discursive mechanisms.

All the junior reviewers identified gaps in their critical comments about some section or a lack of suggestions for improvements, but it was much more difficult for them to notice that they used different discursive mechanisms to address to the authors or to make their voice present in the report. They also had less difficulties identifying differences in the content than incorporating these differences into their revised reports; thus some directly copied experts' comments whereas others only incorporated a small part of the identified differences, some minor comments. One possible explanation for this result could stem from the adopted position that situates them as non-experts, as if they considered themselves to be unauthorized to make certain comments. This resulted in reports being mainly revised at the level of content. This result is probably also linked to the characterisation of *review reports* as occluded genres , clearly unknown by the junior reviewers in our study. Given that these reviewers had some publishing experience and knew articles genre better, it may be assumed that it was easier for them to modify their comments regarding content, closely linked to the genre's requirements and characteristics. In contrast, it seems that for some junior reviewers, the rhetorical aspects and the discursive mechanisms used by the experts were invisible and, although they were present in the guide, this did not guarantee their complete understanding. In these cases, perhaps greater support and assistance in this identification would have been necessary. This is an issue to explore in future studies on the teaching of this genre, both from a linguistic and a psycho-educational perspective.

As it is a pioneering study in the area of reviewer training in authentic contexts of scientific publication, it also has some limitations. First, we only had five junior participants and ten experts. Taking into account the great variability of the review reports, also proven by previous research (Fontanet, 2008; Gosden, 2003; Samraj, 2016) and the diversity of trajectories, results must be taken cautiously. However, our results represent a first step in the direction of analyzing the particularity of the reports and the development of junior reviewers, which can facilitate future studies. Second, the content of the manuscripts was very dissimilar and, although we sought to have reviewers who were experts on the topic of the manuscript that they reviewed, some were not truly familiar with the theoretical or methodological approach adopted by the authors. Although this is a common situation in peer review processes, it could have influenced the content and the structure of the review reports.

Finally, it should be noted that the experience was very positive for all the junior reviewers, who mentioned having learned on various levels (as reviewers, but also as authors and researchers). The guided and explicit reflection about one's own production (initial report) proved useful for promoting this learning. From the point of view of scientific journals, this is an important implication. Emulating a training process such as the one we designed could probably contribute to the junior reviewers' learning and the quality of peer review processes. This study

also has implications for research in scientific writing and early career researcher training. From our perspective, there is no doubt that this training should cover all the areas related to scientific communication; thus the peer review process is an essential part of this training, since, as the title of this article states, being an author is not just a matter of publishing.

Notes

[1] These authors refer to attitude or style rather than position, a term we adopted in this article, in line with terminology from certain previous studies (Castelló, Corcelles, Iñesta, Bañales, & Vega, 2011; Castelló & Iñesta, 2012; Hyland & Guinda, 2012).

[2] All the manuscripts additionally needed one or two more rounds of revision, in which the sole participant was either the associate editor, or the reviewers proposed accepting the work without suggesting substantial improvements.

[3] In round two, one of the expert reviewers (R2 article) suggested acceptance without performing a review report.

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Annex 1

COMPARISON BETWEEN REVIEWERS' REPORTS - CIREV.

For each one of the following points, describe the main similarities and differences between the expert reviewers' reports and yours. If you consider it necessary, also detail the possible changes to introduce in your report and a justification of these changes.

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ASPECTS RELATED TO THE REPORT CONTENT	
a) Comments that demonstrate understanding of the manuscript and its objectives	
Similarities	
Differences	
Possible changes in my report (justification)	
b) Mention of the positive aspects or strengths of the manuscript	
Similarities	
Differences	
Possible changes in my report (justification)	
c) Comments on the introduction	
Similarities	
Differences	
Possible changes in my report (justification)	
d) Comments on the method	
Similarities	
Differences	
Possible changes in my report (justification)	
e) Comments on the results	
Similarities	
Differences	
Possible changes in my report (justification)	
f) Comments on the discussion and conclusions	
Similarities	
Differences	
Possible changes in my report (justification)	
g) Suggestions for change and recommendations for addressing the improvable or unsuitable aspects	
Similarities	
Differences	
Possible changes in my report (justification)	
h) Comments on the format (APA style...)	
Similarities	
Differences	
Possible changes in my report (justification)	

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ASPECTS RELATED TO THE STRUCTURE, DISCURSIVE RESOURCES.	
a) Structure of the report	
Similarities	
Differences	
Possible changes in my report (justification)	
b) Register and discursive mechanisms of the report (to whom the report is addressed, presence of the reviewer through the first person singular, etc.)	
Similarities	
Differences	
Possible changes in my report (justification)	
c) Clarity and precision of comments and presence of arguments to support them	
Similarities	
Differences	
Possible changes in my report (justification)	

How would you evaluate your report? What score would you give it?	Choose an item.
Why?	

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To what extent do you think that your report is similar to the one from the expert reviewers for each one of the previous points? Rate from 1 (very little) to 7 (a lot)	
ASPECTS RELATED TO THE CONTENT OF THE REPORT	
a) Comments that demonstrate understanding of the manuscript and its objectives	Choose an item.
b) Mention of the positive aspects or strengths of the manuscript	Choose an item.
a) Comments on the introduction	Choose an item.
c) Comments on the method	Choose an item.
d) Comments on the results	Choose an item.
e) Comments on the discussion and conclusions	Choose an item.
f) Suggestions for change and recommendations for addressing the improvable or unsuitable aspects	Choose an item.
g) Comments on the format (APA style...)	Choose an item.
Aspects regarding the form	
a) Structure of the report	Choose an item.
b) Mechanisms to ensure text coherence and consistency	Choose an item.
c) Reviewer's voice	Choose an item.
d) Clarity and precision of the comments	Choose an item.
e) Presence of arguments to support comments	Choose an item.

Assess the global similarity between your report and reviewers' report.	
Global similarity	Choose an item.
What aspect of your report do you think requires more revision?	Choose an item.
Why?	
Is there some aspect of the expert reviewers' reports that you think needs improvement?	Choose an item.

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Which one(s)?	

Other comments

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Annex 2

Final questionnaire to assess the training process

1. Do you think that your participation in the call for junior reviewers has been useful for your training as a researcher? In what sense?
2. Do you think that you have learned? What have you learned?
3. What do you think this was due to?
4. What was missing? What could be improved in future trainings?
5. What were the main difficulties that you experienced in the review process?
6. What do you think this was due to?
7. Would you like to add any more comments?

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Annex 3

	RUBRIC FOR THE ANALYSIS OF REVIEW REPORTS - RAINRE
	Aspects related to the content
	1) General comments a) Comprehension of the manuscript and its objectives: 0. No 1. Yes b) Mention of positive aspects, contributions, or strengths of the manuscript 0. No 1. Yes
	2) Abstract, title; keywords
	3) Comments on the introduction a) Topic justification 0. No 1. Yes b) Organization of the information (any comment about the clarity and organization) 0. No 1. Yes c) Appropriateness of the information (revision of previous studies, etc.) 0. No 1. Yes d) Gap 0. No 1. Yes
	4) Comments relative to the objectives/hypothesis a) Clarity and precision 0. No 1. Yes b) Appropriateness 0. No 1. Yes c) Consistency of the objectives system 0. No 1. Yes
	5) Comments on the method a) Design 1. Quantity of information (sufficient information about each one of the sections of the method)

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	0. No 1. Yes 2. Organization and clarity of information 0. No 1. Yes 3. Appropriateness 0. No 1. Yes b) Sample 1. Quantity of information (sufficient information about each one of the sections of the method) 0. No 1. Yes 2. Organization and clarity of information 0. No 1. Yes 3. Appropriateness 0. No 1. Yes c) Data collection 1. Quantity of information (sufficient information about each one of the sections of the method) 0. No 1. Yes 2. Organization and clarity of information 0. No 1. Yes 3. Appropriateness 0. No d) 1. YesData analysis 1. Quantity of information (sufficient information about each one of the sections of the method) 0. No 1. Yes 2. Organization and clarity of information 0. No 1. Yes 3. Appropriateness 0. No 1. Yes
	6) Comments on the results a) Clarity and precision 0. No 1. Yes b) Organization and structure 0. No 1. Yes c) Appropriateness

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	0. No 1. Yes d) Alignment with the objectives 0. No 1. Yes
	7) Comments on the discussion and conclusions a) Alignment with the results 0. No 1. Yes b) Quality of the discussion (contributions...) 0. No 1. Yes c) Organization 0. No 1. Yes d) Completeness (presence of all the information, subsections, etc.) 0. No 1. Yes
	8) Comments on the format (writing, spelling, APA style...) 1. No 2. Yes
	Rhetorical aspects
	9) Suggestions for change and recommendations for addressing the improvable or unsuitable aspects 3. Always 2. Sometimes 1. Occasionally 0. Never
	10) Structure of the report a) Sections 0. No 1. Yes b) Difference between type of comments (major/minor) 0. No 1. Yes c) Introductory comments 0. No 1. Yes d) Closing comments 0. No 1. Yes
	11) Discursive resources - Reviewer's voice: a) Position Choose one of the three options (predominant):

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	1. *Critic evaluation*: judging certain decisions taken by the authors. Aspects to improve are highlighted *2. Collegial argument*: adopts the position of an author who discussses with a peer. 3. *Personal opinion* I would like to b) Presence of the reader (choose one option): 1. Not addressed to the authors. 1. Addressed to the authors. c) Use of self-reference/presence of the report's author (choose one option): 1. Impersonal 2. Use of first person singular 3. Use of the first person plural 4. Inconsistent
	12) Presence of arguments that support the comments 3. High 3. Medium 1. Low 2. None

Final decision on the manuscript
Other comments