

Retroalimentación docente y aprendizaje en talleres virtuales de escritura de tesis

Teachers' feedback and learning in virtual workshops of thesis writing

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RESUMEN

Palabras clave

Escritura académica,
retroalimentación
docente, taller virtual,
educación superior,
educación virtual

En este artículo, mediante una metodología mixta, analizamos la retroalimentación del docente en la producción de un capítulo que los estudiantes elaboran como cierre de un taller virtual orientado a la escritura de la tesis de posgrado, así como los cambios que efectúan a partir de esa retroalimentación. Además, ponderamos si nuestra aproximación al perfil del alumno, resultado del diagnóstico, se asocia al *feedforward* o disposición para actuar sobre la información recibida y emplearla para modificar el texto. El análisis de los datos ha mostrado que el foco más frecuente de los comentarios del docente es el modelo textual, en particular la redacción del escrito; también, que esta función se plasma en dos categorías: sugerir correcciones u ofrecer directamente la reformulación. El cambio más usual que realizaron los cursantes es reformular fragmentos del escrito. Por último, verificamos asociación entre el perfil del estudiante y el *feedforward*. En las conclusiones, destacamos aspectos importantes del estudio, a saber: la incidencia positiva de la retroalimentación del docente en la producción de un capítulo de tesis de posgrado en un taller virtual y la asociación entre ocurrencia de la mejora y el perfil aproximado del alumno.

ABSTRACT

Keywords

Academic writing,
teachers' feedback,
virtual workshop, higher
education, e-learning

In this article, by means of a mixed methodology, we analyze teacher's feedback in the production of a chapter that the students carry out as the final activity of a virtual workshop oriented to the postgraduate thesis writing, as well as the changes they make in their texts based on this feedback. In addition, we assess whether our approximation to the student's profile, derivative of diagnosis, is associated with the feedforward or willingness to act on the received information and to use it to modify the text. The data analysis has shown that the most frequent focus of the teacher's comments is the textual model, particularly the text writing. It has also shown that this function falls into two categories: suggest corrections or offer reformulation. The most frequent change that students made is writing reformulations. Finally, it seems to be an association between student profile and feedforward. In the conclusions, important issues are highlighted: the positive impact of teacher feedback in the production of a graduate thesis chapter in a virtual workshop and the association between improvement occurrence and student profile.

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INTRODUCTION

Since postgraduate research has been acknowledged as a vital area of innovation and development, a growing interest in the need to increase its quality and efficiency before a high rate of desertion is being felt in first-world universities as well as those of developing countries such as ours. Among the relevant factors that hamper the production of partial or final assessment of research papers are the difficulty of the students to write (Caffarella & Barnett, 2000; Carlino, 2005; D'Andrea, 2002) and the single-handedly completion of the task, without or with scarce didactic orientation (Delamont, 2005; Di Stefano & Pereira, 2004, 2007).

Firstly,

postgraduate essays demand an extension, an original conceptualization level, a higher degree of knowledge integration, a self-organizing capacity and an autonomous work regulation that can be communicated solely by mastering writing which is obtained with difficulty in the earlier stages (Arnoux *et al*, 2004, p.3).

Secondly, at that level, pedagogy must overcome the erroneous assumption that candidates “in the past and at present” are autonomous academicians from the moment they apply (Johnson, Lee & Green, 2000); they are once again students that need to incorporate new knowledge, skills, intellectual habits on a specific field of studies (Gardner, 2009) in a process that allows them to do research on a relevant topic from the highest professional competence level.

In this regard it is necessary to question oneself on the expert feedback of a professor or supervisor on his/her incidence in improving students writing at the level of postgraduate studies. Said feedback is especially important for learning experiences of the master's and doctorate degrees students since the comments of the supervisors usually constitute the main form of instruction. On the other hand, as Padilla Carmona and Gil Flores (2008) expound, feedback may foster learning provided it integrates the assessment of the student's work and an explanation of the criteria used for said evaluation as well the action of the student based on what he/she has learned. Orienting feedback for future execution is possible only by considering these three components, i.e., the student's disposition to act upon the information received and use it to modify the text (*feedforward*).

Several studies approach feedback in a specific manner generated by the teacher or the peers in writing assignments carried out in e-training courses at higher level (Tuzi, 2004; Yang, 2016, even at postgraduate level (Álvarez *et al*, 2011; Guasch, Esparsa & Álvarez, 2010; Wolsey, 2008). These three last papers are particularly relevant since they concentrate on the teacher's feedback.

Wolsey (2008) proposes determining types and forms of teacher's feedback in an e-master's, as well as the perception of the students on said

feedback. To do so, he works with four groups: the first two groups have completed the second subject of the master's degree; the others have completed the sixth subject. In all the subjects, the students were asked to write an expository essay and, during this assignment, they received electronic feedback from the teacher. The data are gathered by means of surveys, interviews and comments on the development of the assignment. The students prefer feedback supported by the writing assignment that transmits a comment or a question of the teacher that can be carried out by the use of digital tools.

Álvarez *et al.* (2011) and Guasch *et al.* (2010) carried out an exploratory study to analyze teacher feedback during the collaborative writing assignment carried out by postgraduate students in a virtual and asynchronous setting, as well as its possible effects on the text revisions. The data are gathered from three editions of an e-master's course on virtual teaching during which, in two weeks, the students (n=83), divided in groups of 16 students, write an essay with digital tools on the in-depth case-study. With the object of studying feedback, Álvarez *et al.* (2011) and Guasch *et al.* (2010) distinguish, on the one hand, if the orientation should be on the content (for example: information relevance, problem clarity), to the structure of the text or style; and on the other hand, they identify its function: clarify, affirm or negate, increase, give an opinion, correct, ask, suggest. To ponder the modifications in the text, they consider the changes in style and add information, interpretation, abstraction and idea contextualization. The main results indicate that when the teacher feedback includes suggestions and questions instead of direct corrections, the students respond more constructively: they do not only discuss the content of the work but they also produce meaningful changes in the arguments of the texts they are writing.

Regardless of the researches referred to and, in spite of having registered an important series of publications on scientific writing in different academic search engines (e.g.: EBSCO and Google Academics), we have not found any research on teacher feedback on virtual accompaniment of the writing of the postgraduate thesis; however, there are papers on on-site contexts which focus on the type of feedback or on the students' perceptions (Basturkmen, East & Bitchener, 2014; Can & Walker, 2010; Li & Seale, 2007).

Basturkmen *et al.* (2014)'s study is relevant to the purposes of our research, more specifically for those who have examined the feedback comments that supervisors make on the thesis drafts of different disciplines, in particular, they ask themselves what is the focus of the comments and the way these are formulated. In order to respond to these questions, they use different data collection procedures: questionnaires, interviews and thesis observations. In regard to the focus, they establish four categories: content, formal requirements, cohesion and coherence, accuracy and linguistic adequacy.

In regard to the pragmatic function, they distinguish among the referential, directive or expressive comment. Referential comments provide information, correction or include a reformulation. Directive comments suggest or determine future actions, seek generating information or connections between ideas. Expressive comments consist of positive or negative assessments in regard to the writing. According to the basis of these categorizations, they show that content is the comment most frequent focus in different disciplines or the linguistic accuracy. On the other hand, comments on the linguistic accuracy-adequacy or the formal requirements are presented through information or corrections (referential function), while comments on the content and the cohesion-coherence are formulated as questions or suggestions (direct function).

According to the foregoing, we consider that this article is relevant while we analyze the teacher feedback on the academic production (in particular, the thesis chapter) that students carry out as an online workshop closure oriented to the development of conceptual strategies and writing at the level of postgraduate studies, as well as the changes applied affectively as of this feedback. Lastly, we ponder if our approach to the student's profile, derived from the diagnosis, is associated to the *feedforward* (Padilla & Gil, 2008) or willingness to act on the information received and use it to modify the text.

METHODOLOGICAL FRAMEWORK

The online workshop aimed at the development of conceptual strategies and writing in the postgraduate level to which we will refer was designed as an action-research (Hernández, Fernández & Baptista, 2014), a methodological approach which purpose is to modify the problems that are diagnosed in specific contexts. In this study and in a cyclical way, we have identified difficulties in the academic production and, with the purpose of contributing to overcome them we have designed, implemented, evaluated and adjusted an online workshop oriented to the production of a chapter of the thesis. In this article, we report the results of two cycles, 2015 and 2016, respectively.

Two researchers and a group of doctoral students of Educational Sciences and other social and humanistic disciplines of different university institutions of Argentina intervened in these cycles. The first cycle consisted of 11 students (2 men and 9 women), and the second, of 14 (2 men and 12 women).

In the diagnostic instance we implemented: a *cloze* text,^[1] that allows us to weigh the reading competence (Dastjerdi & Talebinezhad, 2006; Difabio de Anglat, 2008); the "inventory of academic writing at the postgraduate level" (Difabio de Anglat, 2012); an inventory of learning / knowledge conceptions, in which the questionnaire Learning Conceptions -Conapre- (Martínez-Fernández, 2007) is articulated with some items of the Learning Mental Models subscale from the *Inventory Learning Style* -

ILS, English acronym - (Vermunt, 1994); and a questionnaire on the use of technologies, especially those used for writing.[1]

The workshop was designed based on a series of didactic and technological assumptions:

First, it has been understood that writing is fundamental in the intellectual exercise of a higher order (Bereiter & Scardamalia, 1987, Flower, 1979, Flower & Hayes, 1996).

Second, it has been considered that academic writing in undergraduate and postgraduate studies (for example, seminars final works, research projects and theses) requires that the writer have the ability to address the issues of content as well as rhetorical aspects; thus, it is necessary to master both the disciplinary contents and the academic genres and their expository mechanisms (Di Stefano & Pereira, 2004).

Based on the above, we have helped the students reconstruct three models: the situation and communicative interaction model, the event and the textual models (Cubo, Puiatti & Lacon, 2011). The communicative situation model expresses the intentions, motivations and author's knowledge and potential readers, their social and emotional conditions, the role of the interlocutors in the scientific community, their expression according to the type of text and its function, the circumstances of space and time.

The event model accounts for the research process and its stages as well as the content and the object of research (individuals, facts, properties and relations between those individuals and facts); the text model refers to the particularities that writing acquires based on a certain discursive tradition, the different dimensions of linguistic communication and its variants.

In this sense we have proposed, on the one hand, to determine the general structure of the thesis, as well as the movements and steps of each of its sections. The term movement - *move* - "captures the communicative purpose of a text segment at a more general level; step - *step* - more explicitly explains the rhetorical medium of the realization of the move. A move can be made by a single rhetorical step or by the combination of several steps" (Jara, 2013, p.77). On the other hand, we promoted the recognition of the resources and verbalization strategies used to express in writing the meanings to be communicated (linguistic characteristics and content of each paragraph and sentence).

It is important to emphasize that from the analytical point of view only, the three models can be considered separately; however, in the real production process, while the writer plans, writes and reviews the thesis, he simultaneously constructs these three mental representations. Furthermore, it has been understood that the reconstructions of the models made during the reading and understanding

of different theses would contribute to the development of text production processes, and vice versa (Hernández, 2005, Parodi, 1999, 2001).

Third, the recursive processes carried out to produce the thesis (planning, textualizing and revising) were thought from the psycho-pedagogical standpoint of self-regulation (Zimmerman & Risemberg, 1997) regarding the deliberate control of different dimensions, among which we can highlight the performance itself and the consultation with the teacher and the working group.

Fourth, we have postulated that conceptions of knowledge / learning, research and the writing process articulate a *concept-system* (or "personal epistemology" in Hofer's terms, (2001), and that these conceptions influence research and the written production.

Lastly, we have assumed that digital technologies have a positive impact on the process of writing and peer review, as it has been shown at different educational levels (Álvarez & Bassa, 2013; Passig & Swartz, 2007).

In regard to digital technologies, in the first design cycle, we resorted to a variety of applications: electronic mail for sending and receiving work documents (bibliography, activity guide, their solution); entries of a blog for discussion and exchange among the participants; GoogleDocs to develop group activities. In the second cycle, instead, we use the Moodle platform and some of its resources and fundamental tools: tags, files, forums, wikis.

According to the tasks instructions, the students had to search and analyze paratexts and different sections of the thesis. This type of activity consisted reconstructing the representations of the three cognitive models: the communicative situation model, the event and the text model. In some cases, the students performed the tasks individually; in others, in small groups or with the whole group. As final assignment, we ask them to write a chapter of the thesis, a section of some of the chapters or, even, a fragment of some section. We offered a virtual space (in the first cycle, a GoogleDocs, in the second, a wiki) so they could share their draft and receive teaching feedback before submitting it. In the first cycle, the exchange between students and teachers was made through Word comments function, and in the second, the exchange was underlined with different colors throughout the text.

At the end of the workshop, we asked the students not only to submit the chapter (or section), but also to complete three questionnaires: one about the research conceptions, the second application of the "academic writing inventory at postgraduate studies", and one on the students' perspective about the strengths and weaknesses of the tasks undertaken individually and in groups.

Lastly, we evaluated the complete intervention based on the data collected at the different stages.

In this article, we analyzed the comments of the teacher feedback in the production of the workshop final work and the text segment to which each comment refers in its initial and final version (modified). We also considered, should have it arisen, the exchange generated as a result of the feedback.

In regard to the teacher feedback, we analyzed the nature or focus of the comments and their function (Álvarez *et al.*, 2011; Basturkmen *et al.*, 2014). We established the first from the contents seen in the workshop; in this sense, we distinguished between comments oriented to the communicative situation model, event model or textual model. Regarding the latter, we made the distinction between comments regarding movements and steps (lack or change of order) and those related to the conceptual and written production (information of each paragraph and sentence, linguistic aspects, punctuation and spelling). Regarding the function, we applied the categorization proposed by Basturkmen *et al.* (2014), i.e., referential, directive or expressive commentary.

In the analysis of the texts, we identified the following modifications: add movement, change order of movement or step, add information, suppress information, reformulate textual segment, changes in grammar, punctuation, spelling, formal changes (bold, bibliography edition, etc.) and without changes.

The analysis was conducted manually from a qualitative and quantitative perspective, in that order, and the anticipated model was applied, that is, from a corpus-based approach as it is used to exemplify predetermined categories (Parodi, 2005). Coding was a laborious task: at first, a researcher examined the texts and feedbacks, and codified them according to the established categories; after the first analysis, he reexamined each text and comment two or more times in light of the results of the whole. After this first stage, a second researcher reviewed the analysis confirming or questioning the established coding. Lastly, in a process of inter-judicial validation, they deliberated on the few cases (about 2%) in which they differed until reaching a sound decision.

The quantitative aspect of the study focused, first, on calculating two descriptive statistics – the absolute frequency and the percentage - and on graphing the second ones. Then, a statistical inference test - difference of proportions - was applied, which is calculated by means of the STATS program that accompanies Hernández *et al.* (2014)'s work. The critical value to be overcome for statistical significance in the comparison of proportions is $z = 1.96$ at a confidence level of $\alpha = 0.05$.

Lastly, we consider whether our approach to the student's profile, resulting from the diagnosis, is associated with the *feedforward* (Padilla & Gil,

2008) or willingness to act on the information received and use it to modify the text. To do so, we compared, using the Cramer's V, the dichotomous grouping of the profile with the frequency of the category "without changes" in the final document of each student (see Table 4).

In accordance with the purposes of this analysis, we have considered the final assignments of those students who initially shared a complete chapter of the thesis (or an exhaustive draft of a chapter) and discarded those that only presented a section of the chapter. We took into consideration that the same functionalities have been reproduced in the digital tools used (namely, Googledocs and Moodle wikis). We will analyze six assignments in total, three of each edition of the course of which three correspond to chapters of the theoretical framework of the thesis (which we will identify as E1, that is, student 1-, E2 and E6) and three of the methodological chapter (E3, E4 and E5).

RESULTS

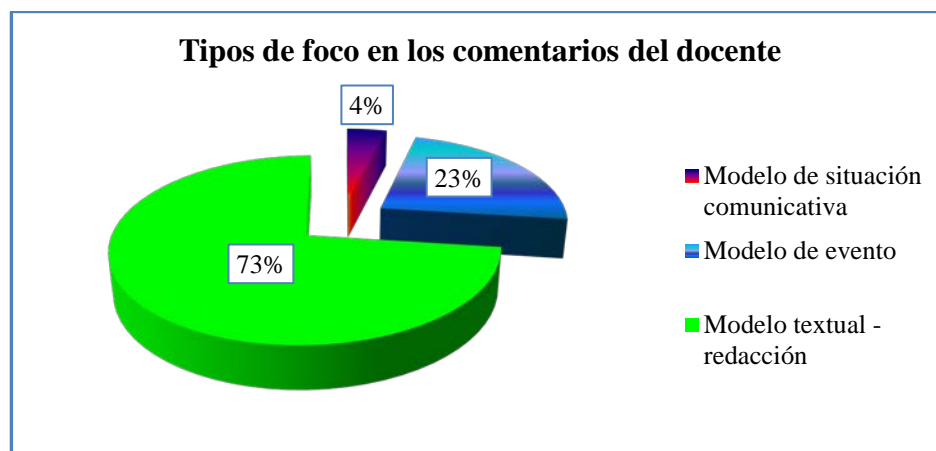
In order to present the results of the four analytical perspectives, first, we will include the corresponding graph and table; then, we will refer to the value obtained from the difference of proportions test. It is important to highlight that, in the presentation of the results, we present different examples in italics: sometimes, the text initially prepared by the student is included and then, between parentheses, the teacher's comment; sometimes, on the other hand, only the teacher's comment is included. *In all cases, this comment is highlighted in blue.* On the other hand, if the comment represents the offer of a reformulation by the teacher, the deletions and additions are reproduced.

Table 1. Frequency of focus types in the teacher's comments to the work of each student

Foco		E1	E2	E3	E4	E5	E6	Total	Porcentaje
Modelo de situación comunicativa		3	1	-	-	1	2	7	4
Modelo del evento		5	7	5	3	10	7	37	23
Modelo textual	Movimientos y pasos	-	-	-	-	-	-	-	-

	Redacción	32	15	26	22	22	3	120	73
Totales		40	23	31	25	33	12	164	100

Source: developed by the author.



Graph 1. Percentage of focus types in the teacher's comments to the work of each student.

These differences are statistically significant from the comparison standpoint between the closest values: event and textual models ($z = 6.23$, $p = 0.01$); that is, the most frequent teacher's comments (73%) on the work of each student are focused on the textual model, more specifically on aspects related to the writing (markers of speech, lexical repetition, concordance, verbs conjugation and spelling), as seen in example 1.

Example 1

The object of this chapter is to present the methodology used to carry out the research development (you could simply say: "to carry out the research" or "to conduct the research").

Comments regarding the event model are presented less frequently (23%) (Example 2).

Example 2

In regard to the studies of the research article in English in our environment ... in the UNCuyo ... (I would try to verify if there are no other universities or research centers in Argentina that deal with this topic and, if affirmative, I would include them. , "In our milieu" would be an equivalent to "Argentina" .)

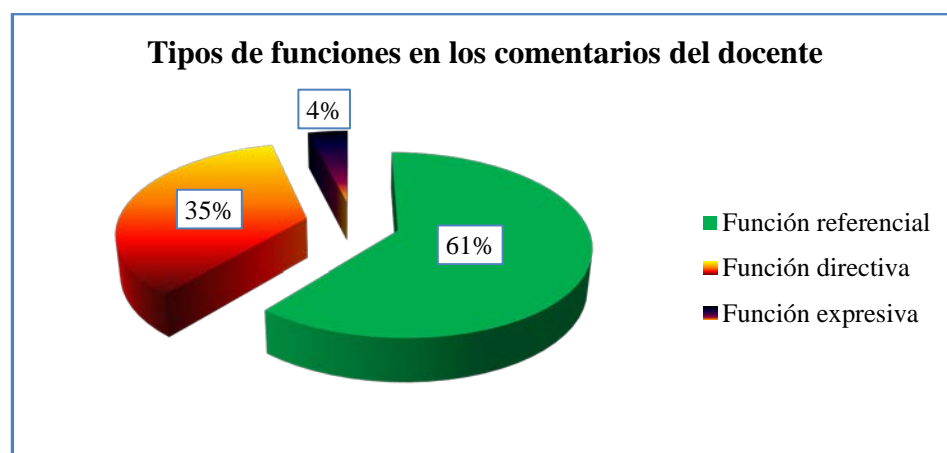
It is important to point out that, although from the quantitative standpoint, the comments inherent to the event model are less significant, this type of comments are particularly relevant because they indicate issues that, if considered, affect global levels of the chapter of the elaborated thesis or even of the complete thesis. In this sense, they differ in their operative potential from most of the comments made on the textual model recorded in this case which focus, largely, on different aspects of a phrase or sentence (for example: concordance) and therefore, if considered, they would affect solely the lexicon or aspects of the text sentence level.

Table 2. Frequency of the types of functions in the teacher's comments on every student's work

Función		E1	E2	E3	E4	E5	E6	Total	Porcentaje
Referencial	Proporcionar información	-	1	-	-	-	-	1	1
	Sugerir corrección	10	4	3	16	13	-	46	28
	Ofrecer reformulación	14	5	17	5	12	-	53	32
	Total							100	
Directiva	Sugerir acción	14	9	9	4	7	8	51	31
	Elicitar información	-	-	-	-	1	1	2	1
	Elicitar conexión entre ideas	1	4	-	-	-	-	5	3
	Total							58	
Expresiva	Positiva	1	-	2	-	-	2	5	3

	Negativa	-	-	-	-	-	1	1	1
	Total							6	
Totales		40	23	31	25	33	12	164	100

Source: developed by the author.



Graph 2. Percentage of the types of functions in the comments of the teacher on every student's work.

These discrepancies also reach statistical significance when comparing the closest values: referential and directive functions ($z = 3.27$, $p = 0.01$); that is, comments with a referential function predominate (61%) generally from Word's change control functionality, as shown in example 3.

Example 3

It is necessary to make some clarifications to ~~make a clarification~~ before proceeding.

To a lesser extent (35%), comments are made with a directive function (Graph 2 and Table 2), as shown in example 4.

Example 4

Would it not be convenient to make a brief connection between the general theme of the thesis and the specific theme of the chapter? You could highlight in what sense it is important for your thesis to know the kinds of words.

On the other hand, there is a very small percentage (4%) of comments with an expressive function that, as we observed in example 5, include positive or negative opinions about the writing.

Example 5

Excellent. The gap in the research is very clear.

The percentage that each category represents in the respective function (see Graph 3) is an interesting additional graphic in regard to this variable; the expressive function is not included due to its low frequency in regard to the others (as shown in Graph 2, only 4%).

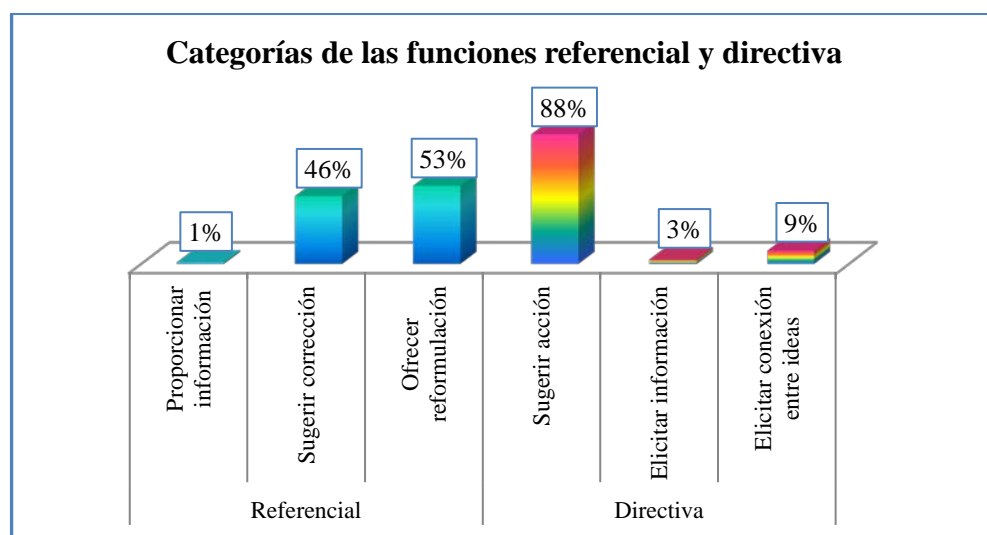


Figure 3. Percentage of the categories of referential and directive functions in the teacher's comments on every student's work.

While the referential function has two categories with considerable percentage, the directive function by antonomasia is to "suggest action". Therefore, the referential function presents comments suggesting corrections (example 6) or directly offering reformulation (example 7).

Example 6

I would eliminate this adjective.

Example 7

On the other hand, the interjections are non-transferable, since their function is exclusively sentence or sub-sentence, and they do not constitute part of a sentence.

Most comments with managerial function, on the other hand, suggest an action, as in example 8.

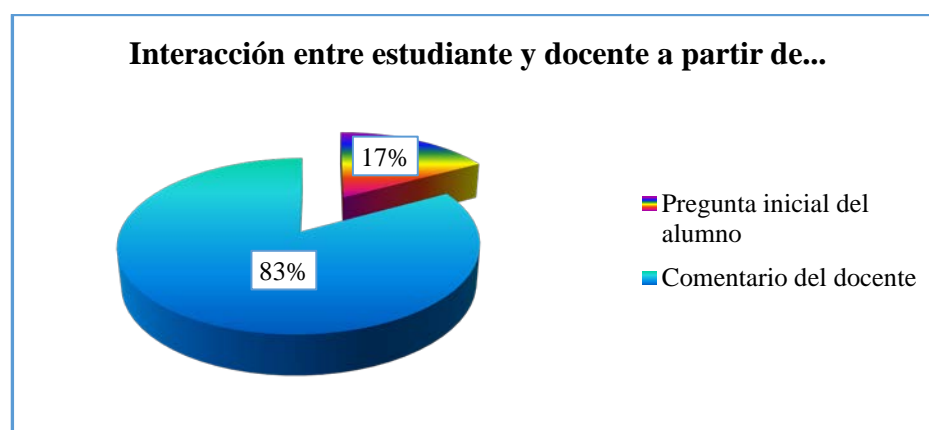
Example 8

What if you put this information in a simple and explanatory table?

Table 3. Frequency of interaction between student and teacher, according to their origin

INTERACCIÓN	E 1	E 2	E 3	E 4	E 5	E 6	Total	Porcentaje
A partir de pregunta inicial del alumno	1	-		-	3	-	4	17
A partir de comentario del docente	1	1	6	-	3	8	19	83
Total	2	1	6	-	6	8	23	100

Source: developed by the author.



Graph 4. Percentage of interaction between student and teacher according to their origin

According to Graph 4 (Table 3), it is evident that the interaction prevails from the teacher's comment ($z = 3.19$, $p < 0.05$). In this regard, it should

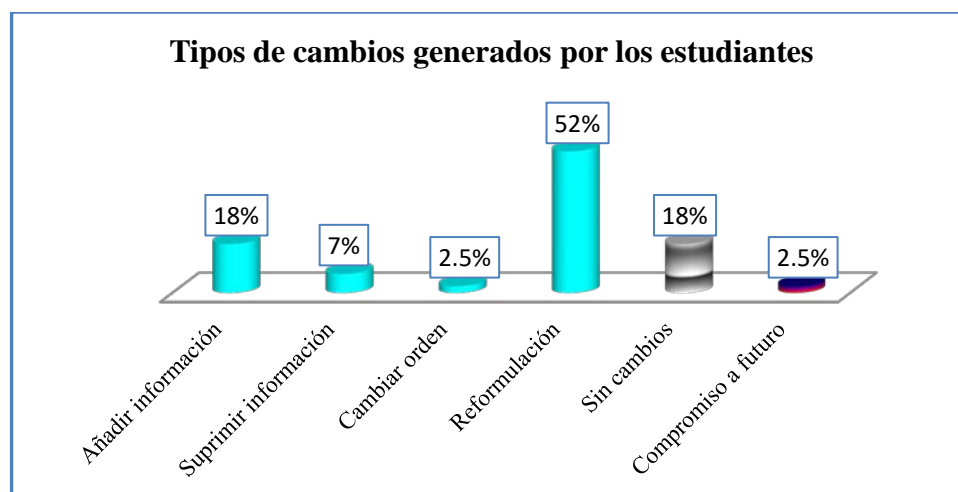
be noted that the three exchanges that are established from a student's initial question refer to an (E5) student who had already been pondering on his chapter with one of the workshop teachers. The questions, then, derive from this previous interaction.

Graph 5 and Table 4 show that the most frequent change (52%) is the reformulation of fragments of the writing. It also highlights that the data analysis revealed an analytical category not considered in our previous classification: "commitment to future changes".

Table 4. Frequency of the types of changes generated in the document by each student

Tipo de cambio	E1	E2	E3	E4	E5	E6	Total	Porcentaje
Agregar movimiento	-	-	-	-	-	-	-	-
Cambiar orden de movimiento	-	-	-	-	-	-	-	-
Añadir información	6	8	-	2	7	6	29	18
Suprimir información	-	1	1	6	3	1	12	7
Cambiar orden de información	-	-	-	-	3	1	4	2.5
Reformulación de segmento textual	19	11	21	17	16	2	86	52
Sin cambios	15	3	6	-	4	1	29	18
Compromiso a futuros cambios			3			1	4	2.5
Total	40	23	31	25	33	12	164	100

Source: developed by the author.



Graph 5. Percentage of the types of changes generated in the document by students.

The comparison of the closest values (reformulation of the text segment versus adding information or without changes) reports once more a statistically significant index ($z = 3.80$, $p = 0.01$).

Lastly, the association between our approach to the profile of each student regarding their availability to act on the information received and the frequency of the category "no changes" in their final document (which is classified dichotomously according to the -3.5 points- median) also reaches statistical significance ($V = 1,000$, $p = 0.014$); that is, the three students who show the least number of changes belong to the group that obtains lower scores in the variable composed of writing and regulation strategies, self-efficacy, conception of the writing task as elaboration and knowledge / learning as interpretation-construction. And conversely, those who show the greatest number of changes correspond to the group that achieves the highest scores in the variable composed of writing and regulation strategies, self-efficacy, conception of the writing task as elaboration and knowledge / learning as interpretation-construction.

CONCLUSIONS

In this article we have analyzed the teacher feedback in the academic production of students in a virtual postgraduate thesis writing workshop, as well as the changes they effectively make based on said feedback. Furthermore, we have pondered whether our approach to the student's profile, derived from the diagnosis, is associated with the *feedforward*.

The data analysis has shown that the most frequent focus of the teacher's comments is the textual model, particularly the writing of the paper

(speech markers, lexical repetition, concordance, verbs conjugation, spelling): 73% of the 164 comments analyzed focus on these aspects. This result is compatible with the findings of Basturkmen *et al.* (2014), who indicate that linguistic accuracy is the most frequent aspect in the teacher's comments.

However, according to the data of our study, we have also noticed that the comments corresponding to the event model, even though they are less important from the quantitative standpoint, are significant in qualitative terms because they point out with detailed explanations and justified questions that, if considered, they affect the chapter in a global way or even the framework of the thesis. This finding seems to be in accordance with that of Álvarez *et al.* (2011) and Guasch *et al.* (2010), who emphasize that when the teacher's feedback includes suggestions and questions instead of direct corrections, the students respond more constructively; they not only discuss the content of the work but they also produce significant changes in the arguments of the texts on which they are working.

Regarding the role of the teacher's comments, we not only have shown that the referentials reach greater frequency, but also that this function is reflected in two categories: suggest corrections or offer direct reformulation. In this sense, we also agree with Basturkmen *et al.* (2014), who have indicated that comments on accuracy-linguistic adequacy or formal requirements are presented through information or corrections (referential function). Furthermore, we have noticed that the comments with directive function are less frequent and they instead materialize in a single category: suggest action.

The interactions between the teacher and the students are usually generated from a comment from the former. Cases in which this exchange arises from a question or observation of the student have occurred mainly in the chapter prepared by a student who has already reflected on his text with one of the workshop teachers. In a very preliminary way, we could suggest that the teaching intervention in the students' conceptual-linguistic production process fosters in them a more active reflection about their writing.

The most frequent change made by the students is the reformulation of fragments of the writing, which seems to correspond to the pre-eminence of comments with referential function through which the teacher suggests correction or offers the reformulation - highlighted with the control of Word changes -. In this sense, we can infer that students in general accept the reformulations proposed by teachers.

Lastly, our approach to the profile of each student regarding their willingness to *feedforward* is associated with the index of changes in their final document: those who plan and revise their text, value the importance and usefulness of writing, monitor their own performance, seek help selectively with experts or with colleagues, develop feelings of self-efficacy

as a writer and, according to an interpretative-constructive conception of knowledge / learning, conceive the scriptural work as elaboration (that is, as a deep personal enterprise and commitment to conceptualization), are those that show the greatest number of changes. And conversely, a decreased performance in those variables corresponds to the higher frequency in the "no change" category. In order to modify this association, it is necessary to implement a more active follow-up specially designed for students with low diagnostic scores.

Finally, we believe that, although we have been able to highlight valuable aspects of the positive impact of the teacher feedback in the production of a thesis chapter in a virtual writing workshop in the postgraduate course and the association between the occurrence of change and the approximate *profile of the student*, the study of these dimensions should be deepened. Among other purposes, it would be necessary to delve into the relationships between the teacher's comments and the changes actually made by the student, as well as to expand the sample of students. In the development of our research, we will retake and expand the aspects we consider fundamental to virtual training in postgraduate writing.

- Bereiter, Carl & Scardamalia, Marlene. (1987). *The psychology of written composition*. Hillsdale, Estados Unidos: Erlbaum.
- Caffarella, Rosemary & Barnett, Bruce. (2000). Teaching doctoral students to become scholarly writers: The importance of giving and receiving critiques. *Studies in Higher Education*, vol. 25, núm. 1, pp. 39-52. <http://dx.doi.org/10.1080/030750700116000>
- Cairney, Trevor. (1996). *Enseñanza de la comprensión lectora*. Madrid, España: Morata.
- Can, Gulfindan & Walker, Andrew. (2010). A model for doctoral students' perceptions and attitudes toward written feedback for academic writing. *Research in Higher Education*, vol. 52, núm. 5, pp. 508-536. <http://dx.doi.org/10.1007/s11162-010-9204-1>
- Carlino, Paula. (2005). La experiencia de escribir una tesis: contextos que la vuelven más difícil. *Anales del Instituto de Lingüística*, núm. 24, pp. 41-62. Recuperado de <https://media.utp.edu.co/referencias-bibliograficas/uploads/referencias/ponencia/239-la-experiencia-de-escribir-una-tesis-contextos-que-la-vuelven-m-s-difcilpdf-OGf01-articulo.pdf>
- Cubo, Liliana; Puiatti, Hilda & Lacon, Nelsi (eds.). (2011). *Escribir una tesis. Manual de estrategias de producción*. Córdoba, Argentina: Comunic-arte.
- D'Andrea, Livia. (2002). Obstacles to completion of the doctoral degree in colleges of education. *Educational Research Quarterly*, vol. 25, núm. 3, pp. 42-58. Recuperado de <https://www.questia.com/library/journal/1P3-117911655/obstacles-to-completion-of-the-doctoral-degree-in>
- Dastjerdi, Hossein V. & Talebinezhad, Mohammad. (2006). Chain-preserving deletion procedure in cloze: A discorsal perspective. *Language Testing*, vol. 23, núm. 1, pp. 58-72. <http://dx.doi.org/10.1191/0265532206lt318oa>
- Delamont, Sara. (2005). Four great gates: Dilemmas, directions and distractions in educational research. *Research Papers in Education*, vol. 20, núm. 1, pp. 85-100. <http://dx.doi.org/10.1080/0267152052000341345>
- Difabio de Anglat, Hilda. (2012). Hacia un inventario de escritura académica en el posgrado. *Revista de Orientación Educacional*, vol. 26, núm. 49, pp. 37-53. Recuperado de <https://dialnet.unirioja.es/servlet/articulo?codigo=4554495>

- Difabio de Anglat, Hilda. (2008). El test cloze en la evaluación de la comprensión del texto informativo de nivel universitario. *RLA. Revista de Lingüística Teórica y Aplicada*, vol. 46, núm. 1, pp. 121-137. Recuperado de <http://www.scielo.cl/pdf/rla/v46n1/art07.pdf>
- Di Stefano, Mariana & Pereira, Cecilia (2007). El taller de escritura en posgrado: representaciones sociales e interacción entre pares. *Revista Signos*, vol. 40, núm. 64, pp. 405-430. <http://dx.doi.org/10.4067/S0718-09342007000200007>
- Di Stefano, Mariana & Pereira, Cecilia. (2004). La enseñanza de la lectura y la escritura en el nivel superior: procesos, prácticas y representaciones sociales. En Paula Carlino (coord.). *Textos en contexto. Leer y escribir en la universidad* (pp. 23-41). Buenos Aires, Argentina: Asociación Internacional de Lectura.
- Flower, Linda. (1979). Writer-based prose: A cognitive basis for problems in writing. *College English*, vol. 41, núm. 1, pp. 19-37. <http://dx.doi.org/10.2307/376357>
- Flower, Linda & Hayes, John. (1996). Teoría de la redacción como proceso cognitivo. En *Textos en contexto. 1. Los procesos de lectura y escritura* (pp. 73-110). Buenos Aires: Asociación Internacional de Lectura.
- Gardner, Susan. (2009). The development of doctoral students: Phases of challenge and support. *ASHE Higher Education Report*, vol. 34, núm. 6, pp. 1-14. Recuperado de <http://www.wiley.com/WileyCDA/WileyTitle/productCd-047050904X.html>
- Guasch, Teresa; Espasa, Anna & Álvarez, Ibis. (2010). Formative e-feedback in collaborative writing assignments: the effect of the process and time. *eLearn Center Research Paper Series*, núm. 1. Recuperado de <http://elcrps.uoc.edu/index.php/elcrps/article/view/issue1-guasch-espasa-alvarez>
- Hernández Rojas, Gerardo. (2005). La comprensión y la composición del discurso escrito desde el paradigma histórico-cultural. *Perfiles Educativos*, vol. 27, núm. 107, pp. 85-117. Recuperado de <http://www.scielo.org.mx/pdf/peredu/v27n107/n107a05.pdf>
- Hernández Sampieri, Roberto; Fernández Collado, Carlos & Baptista Lucio, Pilar. (2014). *Metodología de la investigación* (6ª ed.). Ciudad de México, México: McGraw-Hill.

- Hofer, Barbara. (2001). Personal epistemology research: Implications for learning and teaching. *Journal of Educational Psychology Review*, vol. 13, núm. 4, pp. 353-383. <http://dx.doi.org/10.1023/A:1011965830686>
- Jara Solar, Iván. (2013). Descripción funcional de introducciones de tesis doctorales en las disciplinas de química y lingüística. *Onomázein*, núm 28, pp. 72-87. <http://dx.doi.org/10.7764/onomazein.28.7>
- Johnson, Lesley; Lee, Alison & Green, Bill. (2000). The PhD and the autonomous self: Gender, rationality and postgraduate pedagogy. *Studies in Higher Education*, vol. 25, núm. 2, pp. 135-147.
- Li, Sarah & Seale, Clive. (2007). Managing criticism in PhD supervision: A qualitative case study. *Studies in Higher Education*, vol. 32, núm. 4, pp. 511-526. <http://dx.doi.org/10.1080/03075070701476225>
- Martínez-Fernández, José Reinaldo. (2007). Concepción de aprendizaje y estrategias metacognitivas en estudiantes universitarios de psicología. *Anales de Psicología*, vol. 23, núm. 1, pp. 7-16. Recuperado de <http://www.redalyc.org/articulo.oa?id=16723102>
- Padilla Carmona, M. Teresa & Gil Flores, Javier. (2008). La evaluación orientada al aprendizaje en la educación superior: condiciones y estrategias para su aplicación en la docencia universitaria. *Revista Española de Pedagogía*, año 56, núm. 241, pp. 467-486. Recuperado de <https://dialnet.unirioja.es/servlet/articulo?codigo=2709011>
- Parodi, Giovanni. (2005). *Discurso especializado e instituciones formadoras*. Valparaíso, Chile: Ediciones Universitarias de Valparaíso.
- Parodi, Giovanni. (2001). Comprensión y producción lingüística: una nueva mirada al procesamiento del discurso escrito. *Versión*, núm. 11, pp. 59-97. Recuperado de https://www.researchgate.net/publication/277815945_Comprension_y_produccion_linguistica_una_nueva_mirada_al_procesamiento_del_discurso_escrito
- Parodi, Giovanni. (1999). *Relaciones entre lectura y escritura: una perspectiva cognitiva discursiva*. Valparaíso, Chile: Ediciones Universitarias de Valparaíso.
- Passig, David & Schwartz, Gali. (2007). Collaborative writing: Online versus frontal. *International Journal on E-Learning*, vol. 6, núm. 3, pp. 395-412. Recuperado de

https://www.researchgate.net/publication/255553386_Collaborative_Writing_Online_Versus_Frontal

- Tuzi, Frank. (2004). The impact of e-feedback on the revisions of L2 writers in an academic writing course. *Computers and Composition*, vol. 21, pp. 217-235. <https://doi.org/10.1016/j.compcom.2004.02.003>
- Vermunt, Jan (1994). *Inventory of learning styles in higher education: Scoring key*. Países Bajos: Tilburg University, Department of Educational Psychology.
- Wolsey, Thomas Devere (2008). Efficacy of instructor feedback on written work in an online program. *International Journal on E-learning*, vol. 7, núm. 2, pp. 311-329. Recuperado de <http://www.learntechlib.org/p/23564>
- Yang, Yu-Fen. (2016). Transforming and constructing academic knowledge through online peer feedback in summary writing. *Computer Assisted Language Learning*, vol. 29, núm. 4, pp. 68-702. <http://dx.doi.org/10.1080/09588221.2015.1016440>