



Genre-based writing in a virtual context: a didactic proposal from neuroeducation

Escritura basada en géneros en contexto virtual: una propuesta didáctica desde la neuroeducación

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ABSTRACT

The objective of this work is to design and implement a didactic proposal aimed at strengthening the communicative competence of Spanish Pedagogy students based on genre-based writing and, in addition, supported by the contributions of neuroeducation, particularly in the executive functions. For this purpose, the proposal was carried out using the guidelines that emerge from the Gender Theory, on the one hand, and considering some key elements proposed by neuroeducation, on the other hand. After the application of this proposal, it is expected to promote the installation of situated writing practices that allow students to develop skills that favor their autonomy when facing writing challenges in both academic and work contexts.

RESUMEN

El objetivo de este trabajo es diseñar e implementar una propuesta didáctica orientada hacia el fortalecimiento de la competencia comunicativa en estudiantes de Pedagogía en Castellano que se sustente en la escritura basada en géneros y, además, se respalde en los aportes de la neuroeducación, particularmente, en las funciones ejecutivas. Para ello, la propuesta se llevó a cabo utilizando los lineamientos que surgen desde la Teoría del Género, por una parte, considerando algunos elementos clave que propone la neuroeducación, por otra. Luego de la aplicación de esta propuesta, se espera promover la instalación de prácticas de escritura situada que permitan a los estudiantes desarrollar habilidades que favorezcan su autonomía al momento de enfrentarse a desafíos escriturales tanto en contextos académicos como laborales.

Keywords / Keywords

writing, genres, neuroeducation, e-learning, virtual education

escritura, géneros, neuroeducación, educación virtual

Introduction

In the current context, it has become essential to incorporate technological tools more frequently and almost obligatory in school and higher education classes, since formal education, worldwide, has had to be renewed, moving from classroom instruction in physical classrooms to electronic classes to ensure to some extent its continuity and effectiveness (Alahmadi and Alraddadi, 2020). As a result of this change, the teaching-learning process has presented drawbacks such as, for example, problems of connectivity, space and, in addition, isolation of students from their peers; a decisive aspect, given the great relevance of social participation in the acquisition of knowledge and experiences with other people immersed in the same domain (Hyder, Adcock and Brown, 2020).

At the same time, remote teaching includes some advantages, since it contributes to the development of students' autonomy and self-regulation, which implies greater participation in their own learning. In addition, virtuality presupposes greater flexibility and adaptability in the work times of both teachers and students, since asynchronous

resources such as e-mail, virtual classroom, among others, are used. In this sense, Giffin (2020) indicates that it is necessary for teachers to receive support and feedback on their work in the transition to online learning, because this ensures its effectiveness.

There is currently a boom in the use of technologies in the educational field, as a result of "a sudden and complete switch to virtual classes from teaching regular classes and meeting students face-to-face" (Alahmadi and Alraddadi, 2020, p. 58). In other words, although this is not a recent practice, since computer tools have been used extensively, what is happening in the context of the pandemic is that their use has been increasing and accentuated massively, among other reasons, so that students carry out activities and assignments and these are evaluated mainly by this means.

Referring to the evaluation in university virtual environments, specifically in the field of writing, it is central to consider the stages that in general compose the latter, starting with the search for information and continuing with the textual production to give way to the revision and editing of the writing (Figueroa, Aillon, 2015), procedures carried out entirely online in the present research.

Genre-based writing

Written production is a social, cultural and information exchange activity through which ideas situated in a context are communicated (Burgos, 2017). Particularly, writing based on genres, defined as "abstract, socially recognized ways of using language" (Hyland, 2007, p.149), that is, as a series of patterns, structures and characteristics specific to a given communicative context in which students must develop and participate, seeks to achieve an effective and coherent use of language in textual production. To this end, it is important, according to Almacioğlu and Okanb (2020), to take into account the needs and requirements of students in the classroom, so that they understand and apply the types of texts and their use in different communicative situations.

A genre-based writing didactic proposal is that of Marcela Jarpa (2019), based on three conceptual perspectives: genre theory, genre pedagogy and pedagogical reflection. The general objective is to define and characterize a new academic genre of pedagogical reflection, called "chronicle of the teacher-manager", through which the specialized knowledge delivered by the Master's program is linked to the practical experience of its students. The purpose is that the

students learn to write this genre based on certain conceptual and practical orientations and that, finally, they acquire academic writing skills.

Another didactic sequence based on genres corresponds to the one applied in two specific didactic subjects of the Language and Literature teacher training course at an Argentine university. Based on this, students in both courses must create didactic sequences during a year and a half, first in groups and then individually, through three stages: deconstruction of the genre they will work on, construction of a text that is set within the genre, and editing of the elaborated text. Between the first and second stages, a sub-stage is carried out, which is the design of the text, set up for students to reflect on the organization of the writing they will produce (Bassa Figueredo and Moyano, 2021).

The executive functions of the brain

As part of the higher functions of the brain, executive functions (EF), executive functions can be defined as "a set of capacities referred to the formulation of goals, planning for the achievement of these goals and the execution of behavior in an effective manner" (Arcos Rodríguez, 2021, p.43). Another approach is that proposed by Pardos and González (2018), who understand them as "the ability to exercise self-control of behavior or attention, maintain and manage information mentally, solve problems and adapt flexibly to changes or unexpected situations" (p.30).

Although there is no consensus on the definition of SF, there is a series of traits that are usually present: capacity, planning, self-control and execution/resolution. These types of skills are undoubtedly fundamental for the successful development of teaching-learning processes; therefore, it is necessary to promote their intentional development not only from a very early age, but also during all educational stages.

For the present research, we considered three EFs that are usually considered as the main ones to achieve higher psychological functions: inhibitory control, working memory and cognitive flexibility (Pardos & Gonzalez, 2018; Diamond, 2014). The first of these has been related to success in academic activities such as reading, writing and, in general terms, school performance (Reynoso and Méndez-Luévano, 2018). The relationship is expected if we consider that this EF involves the discrimination of distractors for the successful completion of a task (Jiménez-Puig et al., 2019), which is one of the greatest difficulties

faced by students. Throughout the research, we have safeguarded this discrimination through accompaniment, the procedural development of writing and the promotion of teamwork, which favors self- and co-regulation.

As for working memory and cognitive flexibility, these have been addressed more explicitly in the proposal. The former has been strengthened mainly through the planned reading of texts that were used as "models" of the requested genres. This decision is based on the works of Martínez et al.(2019) and Restrepo et al. (2019), to name some of the studies that establish favorable correlations between guided reading and working memory.

However, in relation to cognitive flexibility, much has been studied about its relationship with reading, a key aspect in our proposal. Indeed, Paba-Barbosa et al. (2019) point out, in this regard, that "people with greater cognitive flexibility perform more corrective behaviors such as rereading, searching for key words or searching for the main idea of the text" (p.91). In addition to the above, this EF also affects the writing process when we understand that this does not necessarily imply linearity, but rather flexibility, since this allows readings (one's own or others') to alter, modify and enrich the final product.

As we have pointed out in §1.2, the health context of recent years has led to the forced and rapid implementation of virtual educational processes. Although this made evident the technological and technical shortcomings at the time of adopting this modality, it also allowed an accelerated growth of distance education, which led teachers to rethink strategies to achieve learning in the new scenario that arose.

In this sense, in order to face the challenge posed by the search for strategies to develop competencies such as reading and writing in virtual higher education, there is a need to discuss pedagogical experiences that, in different contexts, have proven to be useful in achieving the proposed educational objectives. However, from our perspective, this instance of pedagogical-academic exchange becomes more valuable as long as it is possible to count on well-founded, planned, replicable experiences with impact evaluation.

Thus, considering the above, the didactic proposal offered in the following pages aimed to design and implement a didactic proposal oriented towards strengthening the communicative competence in students of Pedagogy in Spanish that is based on genre-based writing

and, in addition, is supported by the contributions of neuroeducation. To this end, in order to provide the community with a contribution that can contribute to the teaching of writing in virtual contexts, the work we offer a) is based on genre-based writing didactics and key concepts of neuroeducation; b) represents a well-designed proposal, whose process is thoroughly explained and justified; and c) is replicable, since all the necessary material is shared or referenced to ensure that the experience is implemented or adapted in other educational contexts. Regarding the impact evaluation, it should be noted that it has been decided to present this information systematically in a later work, however, it should be mentioned that the preliminary results and comments from the actors involved have been favorable.

The proposal has been elaborated for fourth year university students of the Spanish Pedagogy course of a private Chilean university, in the course Advanced Textual Production Workshop, a course that closes the formative line oriented towards writing. The first step to reach the design was to review the programs of curricular activities whose objective was to contribute to the development of writing skills from a disciplinary perspective. Therefore, a table was prepared that summarizes the objectives, didactic strategies and topics addressed in each one of them (Table 1).

Table 1. *Workshops*

Course name	Level	Target	Teaching strategies	Nature of the course	Associated contents
Oral and written production I		develop skills that allow them to know, incorporate and adopt different strategies (whose contributions come mainly from psycholinguistics) that allow them to satisfactorily perform their role as students of	Not stated	theoretical and practical	Basic fundamentals of spelling Basic fundamentals of orality Writing as a process

	Higher Education.			
Oral and written production II	...students to be able to adapt to their role as a future educator and... the challenge of promoting textual production from a holistic approach. processual in their future learners.	controls individual and group written work individual and group oral presentations	Theoretical -practical	Literal and punctual spelling Writing at university Orality at the university
Intermedia te written production workshop	to provide students with tools for the design of production strategies from a processual approach, which will allow them to develop effective writing skills in their future students.	group and individual work design of didactic material	Theoretical -practical	Approaches to written production Didactics of written production Evaluation of written production

In general terms, we can observe the predominance of courses of a theoretical-practical nature, with a tendency towards the development of students' writing skills and then towards the teaching of this skill. We can also infer an organization that progressively advances from more "superficial" linguistic aspects (orthotypographic, for example) in the first two courses, to then approach writing from a situated perspective, both in the last units of course 2 and in course 3. In this

scenario, and considering the complex nature of writing at university (Navarro, 2019), it was decided to strengthen a genre-based perspective of writing in future language teachers, a decision that is also supported by the pedagogical potential that this perspective possesses.

The advanced textual production workshop aims to provide students with theoretical and methodological tools for the implementation and evaluation of production strategies in order to promote creative, reflective and critical capacities of textual producers.

The proposal was distributed in four classes, which made up the second unit of the course. In each one of them, a discursive genre was selected that had not been addressed before in any of the curricular activities that make up the curriculum, so that they would have to investigate the characteristics of the genre. Thus, the writing tasks were the following: an advertising poster, a description of a commercial product, a unboxing and a couple of negative annotations in the school class book.

In order to contribute to the development of competencies that allow the student to identify, deconstruct, analyze a genre and, subsequently, elaborate a textual product that responds to these particularities, the writing of each of the texts was organized following a series of four steps that seek to provide the student with autonomy at the moment of facing the writing process. To achieve this, together with Moyano (2007), we took as a reference the Australian model for the didactics of reading and writing, which comprises three stages: deconstruction, joint construction and independent construction. As a previous step, we incorporated the identification of the genre, a step that consists of the search and selection of one or more texts that can be considered as "exemplary" or exemplary and that serve as a standard at the moment of arriving at the joint construction.

This work proposal was socialized with the students during the first class of the unit, using the material shared below (Figure 1).

Figure 1. Material prepared to socialize the work model with students.

Paso 1: Identificación del género

En este primer paso, la idea es identificar algunos ejemplos del género que se está trabajando.

Se espera que los estudiantes busquen dos o tres textos que consideren modelicos (bien escritos, tomados desde usos reales, provenientes de fuentes confiables, etcétera) para analizarlos en la etapa posterior. El docente puede, además, incorporar uno o dos ejemplos más.



Paso 2: deconstrucción

En este paso, se espera lo siguiente:

1. Que el estudiante identifique aspectos característicos en el plano **lingüístico-textuales**: léxico, conectores, estructura gramatical, ortografía.
2. Que el alumno sea capaz de analizar los aspectos **visuales y multimodales** presentes en los textos que conforman el género. Se puede hacer mención a elementos como la tipografía, la paleta de colores, el uso de imágenes, la disposición de los elementos, etc.
3. Que el docente reconozca los **elementos retórico-discursivos**: las fórmulas de cortesía, el público al que va dirigido, el estilo en que se redacta.
4. Que el aprendiz observe la presencia de **rasgos culturales** que se manifiestan en el género analizado: conjunto de valores, visión de mundo, creencias subyacentes.



Paso 3: construcción conjunta

En este paso, la mediación del docente es la pieza clave.

Se busca establecer un **diálogo con los estudiantes a partir de los hallazgos** que ellos realizaron en cada uno de los niveles de análisis. Sobre esta base, se modela el texto esperado, que debe ser el resultado de los aspectos comunes que lograron identificar.

Es en este punto donde el profesor **explicita las expectativas** que tiene sobre el texto y el instrumento que se utilizará para evaluar: instrumento que puede, también, ser elaborado en conjunto.



Paso 4: construcción independiente

Luego de la construcción conjunta del género en el paso anterior, el estudiante debe tener un espacio para producir su texto de manera **autónoma**.

Esto no quiere decir que lo abandonamos a su suerte, pues el proceso de escritura posee un marcado carácter social, sino que se busca ofrecer la oportunidad de que sea el propio aprendiz quien logre **'actualizar'** las características del género que se está trabajando en un **texto original**.

En este escenario, nuestro rol será entregar acompañamiento constante y retroalimentación efectiva y oportuna.



Considering that the course in which the didactic proposal was carried out had two weekly sessions of 90 minutes each, it was decided to dedicate the first session to the completion of the first two stages (identification of the genre and deconstruction) and, subsequently, the second class to the remaining two (joint construction and independent construction). It should also be noted that the autonomous work time of the course (4 hours per week) was devoted to the completion of the fourth step, which is usually the most extensive.

For the genre deconstruction stage, a grid was used to guide the analysis focusing on four aspects: linguistic-textual, visual, rhetorical-discursive and cultural-valorical. In order to guide the analysis process and encourage student participation, the Moodle ® "virtual whiteboard" tool was used, which allowed students to complete the proposed grid together (Figure 2).

Figure 2. Analysis grid in the Moodle ® shared whiteboard.

Ling. text Lingüístico textual	visuales visuales*	retórico-discursivo	cultural/valórico
lenguaje apelativo	Afiche wom con tonos en morado. Personas de toda edad fondos morados	función apelativa tuteo	Busca romper estereotipos vivir sin límites, disfrutar la vida, moverse, divertirse, ser una bestia (bebidas energéticas)
Oraciones simples	Prevalece colores como: morado, negro y blanco	ironía	relacionado a fiestas o deportes
Frases cortas	bebidas energeticas : colores llamativos, casi neón	informal constante ataque a	rupturista del patrón tradicional
Lenguaje paralinguísticos	que se vea el disfrute	Dirigido a jóvenes principalmente	
Intertextualidad	uso de rayos eléctricos		
Apócope	se usan más colores en tonos verdes ausencia de personas		
	Dirigido, en su mayoría, a deportistas, pues estos mismos también salen en la publicidad. A su vez, hay ciertas empresas que apuntan hacia el mundo del gaming, utilizando elementos como: jugadores profesionales, gadgets gamers, campeonatos, etc. Aun así, prevalece el ámbito deportivo.		

The joint construction and individual construction stages were accompanied by a rating scale that weights each of the aspects contained in the analysis grid (Figure 2). The evaluation instrument presented below (see Figure 3) was replicated for each of the tasks requested, although with some modifications according to the characteristics of the genre evaluated.

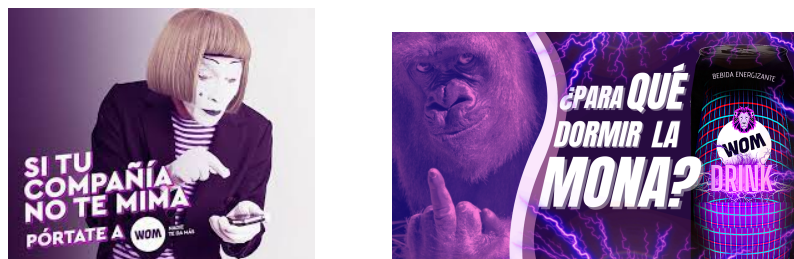
Table 2. Instrument

Dimension	Excellent 5pts	Well 3pts	Can be improved 1pt	No evidence 0 pts
Gender appropriateness The structure, organization and orthotypographic resources correspond to an advertising poster.				
Design The color, the arrangement of the elements in the plan, the visual resources and the relationship between them.				
Rhetorical-discursive aspects In the poster, the appellative function clearly predominates. In addition, the brand's own style (ironic, burlesque, close) is evident.				
Cultural-value aspects The values conveyed by the poster correspond to those that characterize this company: freedom, transgression of rules, irreverence.				

The didactic unit consisted of four writing challenges, and in each of them the students were asked to write a different multimodal discursive genre: advertising poster, product description, unboxing and negative annotation in a school context. For the first stage, and in order to motivate and model the requested text, some examples were presented and students were asked to collect some others by themselves. The first challenge presented the following slogan: "The well-known telecommunications company Wom® will launch, as a limited edition, an energy drink, and you have been asked to create the poster for this campaign". The posters taken as reference by the

students belonged to the world of telecommunications and energy drinks. On that basis, and following the four-step proposal, they developed their own poster (Figure 4).

Figure 4. On the left, one of the posters taken as a reference; on the right, one produced by a student.



The second writing challenge corresponded to the writing of a descriptive advertising text. The situation proposed to the students was the following: "As an expert in the Spanish language, a retail company has contacted you to offer you a job: to write the description of the products they offer on their website". As input, they were given some descriptions so that they could have reference texts (Figure 5).

Figure 5. On the left, a descriptive text taken as a reference; on the right, one produced by a student.

 <p>Perfume TOMMY HILFGER Tommy Girl</p> <p>Clásico. Americano. Frio. Creado para la mujer que todo llevamos dentro.</p> <p>Tommy Girl fue la primera fragancia lanzada simultáneamente con la colección de moda que la inspiró. Reflejando la actitud energética de las mujeres en todo el mundo: es una fragancia inteligente, sexy y divertida cosechada de los tesoros del paisaje estadounidense.</p> <p>Tommy Girl refleja la actitud enérgica de las mujeres en todo el mundo: es una fragancia Inteligente, Sexy y Divertida.</p> <p><small>Notas americanas cuidadosamente seleccionadas de mandarina, madreselva y brezo salvaje recorren las notas superiores, corazón y base de la fragancia. Creando un hermoso ramo de flores silvestres con efervescencia brillante.</small></p>	 <p>SET DE DOS LABIALES "ME QUIERO"</p> <p>¡Los labiales más amados por el público ya están juntos! Demuestra la vibra que hay en ti con estos hermosos tonos mate de larga duración. Su textura matificadora le brindará a tus labios la opacidad que tanto buscas para un look único y lujoso. Además, su fórmula en muse te otorgarán un secado rápido e intransferible. Ideal para los días en que necesites resaltar el increíble potencial que tienes ¡Y sin fallar en el intento! ¡El éxito será completamente tuyo!</p>
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As a third challenge, students were invited to perform a unboxing, a very popular genre on the Internet that consists of sharing, through a video, the first impressions of an acquired product, and in which the strengths and weaknesses of the product are usually presented (Figure 6). Although this challenge is dominated by non-linguistic aspects,

such as visual and auditory, the process that the student must follow is the same: identification, deconstruction, joint construction and independent construction.

Figure 6. On the left, the screenshot of a Youtube® video; on the right, the one produced by a student.



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The fourth challenge had a professionalizing character. Three situations of violence in the classroom were presented, starring high school students, using videos broadcast on Youtube®, in order to provide students with inputs to answer the following question: How would you write the negative annotation on the student's resume? The resulting text turned out to be very conditioned by the models used, since this genre usually presents many variations depending, for example, on the restrictions established by the educational institutions at the time of writing. An example of the product produced can be seen in Figure 7:

Figure 7. Above, an example of negative annotation disseminated on the Internet; below, the university student's production.

FECHA	ASIGNATURA	OBSERVACIONES Y COMENTARIOS
19/06	Matemática (-)	Veramente dice entre su grupo de trabajo "chúpalo entonces" cuando el resultado de un ejercicio es 11.

FECHA	SUBSECTOR	OBSERVACIONES Y ANOTACIONES
15/10/2021	Lengua y Literatura (-)	Alumno agrede violentamente a otro alumno de curso inferior mientras se encontraban en el patio. Incitado por sus amigos, agarra al alumno menor y lo azota en el piso. Se activan los protocolos de convivencia y alumno afectado es llevado a urgencias dada la gravedad y posible contusión. Alumno agresor es llevado a inspectoría y se le indica que se le llamará al apoderado. Se sugiere suspensión.

Conclusions

The contributions that neuroeducation has made in recent years have an undeniable value in improving the performance of our students. The convergence between neurology, psychology and pedagogy, the three main fields involved in this discipline, has made it possible to reinforce some teaching perspectives, as in the case of gender-based didactics, and, in others, to demolish some myths -or neuromyths-related to learning. This invites us to rethink our teaching practices based on the advances that this discipline has achieved, to reflect on the findings that neuroeducation has made and, on that basis, to engage in a critical dialogue that favors the achievement of learning objectives.

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This work is nothing more than a contribution to the above: it involves the design of a didactic sequence based on genre-based writing from the Australian model (which is about three decades old) and, on that basis, enriching it with the theory on the executive functions of the brain, specifically, inhibitory control, working memory and cognitive flexibility. As a result, we were able to obtain a proposal that allows us to strengthen written communication skills in university students, a key competence to achieve a successful performance during any student's formative itinerary.

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