

Towards Growing Control of Factorial Explanations: Reflections from a Genre-Based Course Experience in Colombia

*Hacia un Mayor Control de las Explicaciones Factoriales:
Reflexiones sobre una Experiencia en un Curso Basado en
Géneros Textuales en Colombia*

Jesus Guerra-Lyons

UNIVERSIDAD DEL NORTE
COLOMBIA
jdguerra@uninorte.edu.co

Teresa Benítez

UNIVERSIDAD DEL NORTE
COLOMBIA
benitez@uninorte.edu.co

Adriana Pérez

UNIVERSIDAD DEL NORTE
COLOMBIA
aderamirez@uninorte.edu.co

Nayibe Rosado

UNIVERSIDAD DEL NORTE
COLOMBIA
nrosado@uninorte.edu.co

Received: 06-VIII-2021 / Accepted: 01-IV-2022

DOI: 10.4067/S0718-09342023000200260

Abstract

This paper explores qualitative changes in freshmen's writing of factorial explanations throughout a genre-based syllabus implemented within a year in a Spanish L1 writing course offered at a Colombian university. The aim was to assess the extent to which explicit modelled and scaffolded writing of generic exemplars resulted in freshmen's appropriation of the generic features of the target genre. The analysis of independently produced instances showed students' appropriation of the contextual structure of factorial explanations as well as adequate control of textual and ideational resources for making meaning across generic stages and phases. We discuss findings in connection with the contribution of Genre Based Literacy Pedagogy in the development of reading and writing skills in initial literacy education at the university level.

Keywords: Academic literacy, factorial explanations, genre-based pedagogy, systemic functional linguistics.

Resumen

Este artículo estudia los cambios cualitativos emergentes en la escritura de explicaciones factoriales en universitarios que asisten a un curso de escritura académica en español ofrecido en el primer año de la carrera. El estudio analiza la posible influencia del modelamiento explícito y del andamiaje de la escritura de este género en la producción

de textos que reflejen la apropiación de los recursos lingüísticos propios del género meta. El análisis reveló una apropiación de la estructura genérica de las explicaciones factoriales y un control adecuado de recursos textuales e ideacionales característicos. Discutimos estos resultados en relación con la contribución de la Pedagogía de Géneros Textuales en el desarrollo de las habilidades de lectura y escritura la literacidad académica inicial en educación superior.

Palabras Clave: Alfabetización académica, explicaciones factoriales, lingüística sistémico-funcional, pedagogía de géneros textuales.

INTRODUCTION

Genre-based instruction, the set of pedagogies emphasizing explicit instruction on register-specific language features (Hyland, 2003), has gained steady support as an approach to literacy education within the university curriculum (Dreyfus, Humphrey, Mahboob & Martin, 2016; Moyano & Giudice, 2016; Rojas, 2017; Navarro, 2019; Parodi, 2019). In advanced university education, this approach has been found to promote senior students' adoption of conventional genre structure (Humphrey & Hao, 2013; Dreyfus et al., 2016), to favor their discursive positioning as experts (Wingate, 2012; Ryshina-Pankova, 2011), and to strengthen their professional and academic identities (de Macedo & Pagano, 2012; Hyland, 2015). One of the areas demanding attention concerns freshmen's initial appropriation of academic genres within foundational non-disciplinary courses (Wardle, 2009; Carstens, 2011). In such courses, it is not so clear whether genre-based approaches implemented by language experts can promote control of the nuanced linguistic resources needed for making meanings within academic contexts (Carlino, 2013). This issue bears special relevance in Spanish-speaking contexts, where first-year writing courses continue to occupy a prominent role in university curricula, given the lesser penetration of writing across the curriculum programs (Thaiss, Bräuer, Carlino, Ganobcsik-Williams & Sinha, 2012).

One of the genres demanding complex meaning-making resources in university literacy is explanation, which covers texts oriented to the social purpose of accounting for phenomena in terms of causes and/or consequences (Martin & Rose, 2008). Explanations require writers to establish causal relations between technical, abstract and/or metaphorical entities (Dreyfus et al., 2016), posing a challenge to students scarcely familiarized with the discursive realization of causality and ideational incongruence. Examining the explanations produced by freshmen within genre-based courses can illuminate affordances of this pedagogical approach within initial literacy instruction. To this aim, this study investigates freshmen's control of the generic features of factorial explanations within a year 1 course informed by Sydney School genre-based pedagogy (see course description in Álvarez, Benítez & Rosado, 2018). By identifying strengths and weaknesses in freshmen's appropriation of this complex genre, the study reflects on the possible gains and limitations to be expected from the

implementation of genre-based instruction within Spanish L1 initial literacy education. The paper begins with a contrastive overview of Sydney school genre-based models and with the characterization of factorial explanations through categories from Systemic Functional Linguistics. After presenting methodological considerations, it introduces salient findings connected to learners' control of the language of factorial explanations and concludes by discussing their pedagogical significance.

1. Theoretical framework

1.1. Genre-based pedagogy in higher education

Sydney School genre-based pedagogy (hereafter GBP) is an instructional approach which considers texts as the nucleus of pedagogic activity and teacher scaffolding as a central tool to promote autonomous reading and writing (Christie & Martin, 1997; Rose & Acevedo, 2007; Moyano, 2010; Benítez, Barletta, Chamorro, Mizuno & Moss, 2018; Benítez, Guariguata & Pérez, 2021; Guerra-Lyons & Rosado, 2020; Pérez & Rosado, 2019). GBP thus focuses on explicit teaching of text structures, social purposes, and linguistic features through interaction in the classroom, drawing on Systemic Functional Linguistics' Genre Theory (Martin & Rose, 2007; Rose & Martin, 2012) to model genres as staged goal-oriented social processes with recognizable patterns that can be taught and learned.

GBP has been adapted to different instructional contexts throughout its implementation since 1980s. Although basic principles underlying the approach have remained constant, different programs have created models contrasting in terms of the expected instructional stages. For a more informed comprehension of the affordances of GBP in initial literacy education at the university level, it is necessary to consider the commonalities and differences between these adaptations. Table 1 compares four models which have been implemented in tertiary education: the Sydney School Teaching and Learning cycle (Christie & Martin, 1997), the *Reading 2 Learn* cycle (Rose & Acevedo, 2006, 2017), the Argentinean GBP cycle (Moyano, 2010, 2017, 2018), and the Eficacia program cycle (Álvarez et al., 2018; Benítez et al., 2018; Pérez & Rosado, 2019) (which we apply in this study). To draw more meaningful comparisons, we label the instructional phases proposed in these models in terms of interactional modalities (whole-class, small-group, and individual) and modes of scaffolding (teacher-led, teacher-assisted, and independent) (van de Pol, Volman & Beishuizen, 2010).

Table 1. A comparison of instructional stages and phases in four GBP models (source: own elaboration).

Sydney School Teaching & Learning Cycle (Christie & Martin, 1997)	Reading 2 Learn (Rose & Acevedo, 2006)	Argentinean GBP (Moyano, 2010, 2017)	Eficacia (Benítez et al., 2018; Álvarez et al., 2019)
Deconstruction: <ul style="list-style-type: none"> Teacher-led whole class preparation + genre-oriented deconstruction 	Outer circle: <ul style="list-style-type: none"> Teacher-led whole class reading (oriented to field of experience) Teacher-led whole class writing Independent individual writing 	Deconstruction: <ul style="list-style-type: none"> Teacher-led whole class preparation + deconstruction. Teacher-assisted small group deconstruction Independent Individual deconstruction 	Deconstruction: <ul style="list-style-type: none"> Teacher-led preparation + deconstruction. Teacher-assisted small group deconstruction.
Joint construction: <ul style="list-style-type: none"> Teacher-assisted whole class field building. Teacher-assisted whole class writing. 	Intermediate circle: <ul style="list-style-type: none"> Teacher-led whole class detailed reading Teacher-led whole class joint rewriting Independent individual rewriting 	Text design and construction: <ul style="list-style-type: none"> Teacher-led whole class planning with graphic organizer Independent small group writing. 	Joint construction and editing: <ul style="list-style-type: none"> Teacher-led whole class planning with graphic organizer Teacher-assisted whole class writing and editing. Teacher-assisted small group writing and editing
Independent construction: <ul style="list-style-type: none"> Independent individual field building. Independent individual writing. 	Inner circle: <ul style="list-style-type: none"> Teacher-led whole class sentence writing Teacher-led whole class sentence rewriting Independent individual sentence writing 	Edition: <ul style="list-style-type: none"> Teacher-assisted whole class editing of independently written texts. Independent individual writing. Independent individual editing. 	Independent construction and editing: <ul style="list-style-type: none"> Independent small group planning Independent individual writing Independent individual editing.

Teacher-led activities are those in which teachers assume most of the responsibility in regulating the content, pace, and dynamics of interaction, while students mostly adopt observer roles. Teacher-assisted activities, in turn, make students responsible for regulating interaction while the teacher intervenes contingently to provide feedback and learning resources. Independent performance presupposes minimal or null involvement of the teacher in supporting students towards an instructional product. In comparing the models, we focus on the stages and phases declared in their original formulations, although some differences might result from the level of detail at which each stage is described by program proponents.

One subtle difference concerns the orientation of deconstruction towards noticing genre features or towards building subject matter knowledge ('field building'). The *Reading 2 Learn* cycle implies a dual focus on these aspects within deconstruction of target genre instances (in systemic functional terms, a focus on the field of activity and on field of experience) (Rose & Acevedo, 2006, 2017). The Sydney School, Argentinean GBP and Eficacia cycles seem to orient deconstruction mainly towards recognition of genre structure and language features, while acknowledging that field-building may feed on text deconstruction itself or on text sources not necessarily corresponding to the target genre. Another difference refers to the interactional modalities contemplated within deconstruction. While deconstruction in the Sydney School Teaching & Learning cycle and in the *Reading 2 Learn* cycle is a teacher-led whole class exercise, the Argentinean GBP and Eficacia cycles include teacher-assisted deconstruction in small groups as follow-up practice. The Argentinean GBP cycle also suggests individual deconstruction as a possible instructional phase following individual and joint deconstruction (Moyano, 2017).

Joint construction shows the most important variation in terms of expected instructional moves. One salient difference is that between field building in the Sydney School Teaching & Learning cycle and in the *Reading 2 Learn* cycle, the latter emphasizes teacher-assisted notetaking from target genre specimens as a strategy to foster learners' construction of subject matter knowledge (Rose & Acevedo, 2006, 2017). Whilst the Sydney School Teaching & Learning cycle does not explicitly use editing activities, *Reading 2 Learn* uses teacher-assisted rewriting of target genre specimens from notes as the central instructional space for modelling writing skills, taking rewriting and editing as interchangeable terms. In contrast, the Argentinean GBP and Eficacia cycles employ editing in the more traditional sense of revising a draft to improve its structure and language (not to produce a different text altogether) (Moyano, 2010, 2017; Benítez et al., 2018, 2021; Pérez & Rosado, 2019). In Argentinean GBP, the teacher provides a graphic organizer with information for small groups to independently produce a target genre specimen, the emphasis being placed on teacher-led editing of these specimens in the whole class mode. Stage 2 of the Eficacia model combines planning, writing, and editing within whole class and small group modalities, offering more intensive scaffolding on writing and editing processes under the premise that editing academic texts is a complex skill requiring gradual release of pedagogical support.

Independent construction shows less variation, although some instructional phases differ. The four models take individual performance as the goal of the cycle, but they differ regarding the nature of the independent performance expected: the Sydney School Teaching & Learning cycle and the *Reading 2 Learn* cycle consider independent individual writing to be the desirable outcome, while Argentinean GBP and Eficacia

aim for independent individual editing, in keeping with their more processual view of writing.

The comparison presented in this section suggests that, despite reflecting an interest in scaffolding autonomous genre instantiation, the GBP models considered show important differences concerning their conception of reading and writing instruction. The Argentinean GBP and Eficacia cycles integrate small group interaction as a transition between teacher-fronted support and independent performance, and they foreground the need to combine product and process-oriented instruction to foster the complex skills involved in producing genres in tertiary education (Moyano, 2010, 2017, 2018; Benítez et al., 2018; Pérez & Rosado, 2019). The Eficacia cycle implemented in this study was designed to provide more intensive scaffolding on students' appropriation of genres demanding such complex skills, prominent among which are explanations.

1.2. Factorial explanations

Explanations cover a family of text types oriented towards the social purpose of accounting for the causes and/or effects of general orders of phenomena (Martin & Rose, 2008). Factorial explanations emphasize causal factors organized by order of importance or relevance (unlike sequential explanations, which favor chronological order). In terms of contextual structure, the stages typically followed by genre specimens according to their social purpose (Martin, 1992), they comprise a Phenomenon stage, where the phenomenon being accounted for is introduced, followed by one or more individual Factor stages. The Factor stages usually contain clauses joined by causal enhancement (A so B so C), occasionally also involving temporal sequencing (A so B then C).

Dreyfus et al.'s (2016) study of factorial explanations in undergraduate disciplinary contexts presents some of their generic characteristics across ideational, interpersonal, and textual metafunctions. Ideationally, this genre involves a nucleus-satellite organization, where the Phenomenon stage is expanded causally by the Factor stages, and it orients itself to the construction of specialized taxonomies through technical terms and ideational grammatical metaphors. Interpersonally, it presents an authoritative and impersonal evaluative stance through propositions realized by declarative Mood and, to a lesser extent, modal Finites. Textually, factorial explanations demand the management of information in a decreasing density pattern, where high-density hyperThemes (messages indicating the contents of a rhetorical unit) are developed by less informationally dense units.

Factorial explanations are a strategic genre to target in first-year writing courses because they require sophisticated control of resources for distilling meaning, including technicality and grammatical metaphor (Halliday & Martin, 1993). They also pervade various macro-genres across disciplines with different knowledge structures,

either as central elements or as minor satellites (Dreyfus et al., 2015). A recent study of the subject matter texts read throughout undergraduate programs at our university (Benítez et al., 2018) found factorial explanations featuring in historical accounts and technical procedural recounts, macro-genres whose complexity poses significant difficulties for students' comprehension and production. Their lexicogrammatical complexity and widespread use across disciplinary contexts justify our focus on factorial explanations in the exploration of the pedagogical affordances of genre-based first-year writing courses for promoting university students' literacy development. Specifically, we are interested in investigating the following research questions:

- 1) Can genre-based first-year writing courses raise students' awareness of the generic features of factorial explanations in academic contexts, as reflected in their peer editing of genre instances?
- 2) Which strengths and weaknesses in students' appropriation of factorial explanations are reflected in their independently written drafts at the end of genre-based first-year writing courses?

2. Method

2.1. Context

This study was carried out in a 46-hour course called *Competencias Comunicativas I*, offered to first year students at Universidad del Norte (Colombia) as part of the common core course component. The course aims to foster students' ability to understand and produce written explanations, a genre focused on due to its frequent occurrence within disciplinary subjects and its demanding linguistic features, as documented by our own research on the texts read and written throughout the university's curriculum (Álvarez et al., 2018; Benítez et al., 2018, 2021; Pérez & Rosado, 2019). A diagnostic task applied upon entry showed that more than half of the class (52.48%) had difficulties producing explanatory texts meeting generic and linguistic expectations. These diagnostic findings motivated our interest in exploring qualitative changes in students' writing of this genre, within the context of the genre-based syllabus under implementation. One of us (Teresa Benítez) was the course teacher, while the rest participated in instructional design and data analysis.

2.2. Instructional design

The pedagogical design implemented is informed by the *Eficacia* model, a local adaptation of the Teaching and Learning Cycle proposed by Sydney School genre-based pedagogy (Álvarez et al., 2018; Benítez et al., 2018, 2021) (see Table 1). The adopted sequence includes three stages: 'deconstruction', 'joint construction and editing', and 'independent construction and editing'. In deconstruction, the teacher first anticipates the text's content and social purpose through an overview of its

schematic structure and a synthesis of the information in each stage. The teacher and students then jointly read the text in detail, placing special emphasis on the relationship between its contextual structure and the linguistic features characterizing each stage. Students are subsequently guided to analyze another part of the text in small groups, aided by graphic organizers and the teacher's feedback.

In 'joint construction and editing', students are guided in planning and writing a new factorial explanation paragraph that is added to the sample text. This stage involves the teacher and students jointly writing a paragraph with a new Factor for the factorial explanation presented in joint deconstruction, using a chart with relevant information provided by the teacher. This guided writing exercise provides an opportunity for the teaching to model the logical structure of rhetorical units, the use of evaluative resources for expressing attitudes and degrees of certainty, the use of punctuation devices, among other aspects. Possible alternatives in text organization are also presented to raise students' awareness about the variability of language use according to the context, as suggested in Moyano (2010). The editing component involves the teacher and students jointly assessing the co-constructed text using a genre-specific rubric. The teacher guides the editing process by drawing students' attention to the appropriateness of the linguistic choices made in the text, and by making the process of editing text explicit. Following our prior classroom research, which points to the need for further scaffolding before independent writing (Benítez et al., 2021), we decided to include a transitional activity in which small groups of students are asked to produce a Factor paragraph for the factorial explanation and then, within the group, to edit each other's paragraphs using the same rubric applied in the joint editing exercise with the teacher.

In 'independent construction and editing', students consult information about a phenomenon they will explain by accounting for its causal factors. After reading and taking notes from at least five sources from the library database, they build an outline for the factorial explanation text and write out the generic stages of the text until it is completed. Students are encouraged to self-assess their drafts with the genre-specific rubric to enhance the appropriateness of their discursive choices regarding the social purpose at hand. The teacher assesses the final draft with the rubric and gives students feedback on their performance.

2.3. Data collection and analysis

To address research question 1, which focused on students' editing choices, we collected the first drafts and edited versions of the paragraphs produced by students during the small group writing & editing phase of Stage 2 ($N= 50$). Question 2 was explored through a corpus of final version end-of-semester papers produced by students in the Independent Writing and Editing stage ($N= 100$). The papers required students to explain a phenomenon affecting them or their communities by presenting

at least three causal factors, independently conducting the planning, writing, and editing stages modelled to them. Although this assignment was to be carried out independently, students were encouraged to use previously modelled resources and to discretionally provide each other with feedback during the planning stage.

The research team analyzed the corpus in small group paragraphs and final papers in terms of textual and ideational resources employed in students' papers. The linguistic analysis focused on the realization of periodicity through Theme selections and on the realization of entities and logical relationships through nominal and verbal groups (key features in factorial explanations as indicated by Dreyfus et al., 2016). Because factorial explanations are oriented towards the ideational construal of experience, rather than to the interpersonal negotiation of social roles and values, we did not include interpersonal aspects in the analysis presented in this paper.

Theme analysis initially involved identifying macroThemes, hyperThemes, and macroNews in students' papers, following Martin's (1992) periodicity analysis. macroThemes announce the contents to be covered by the text, corresponding in factorial explanations to the Phenomenon stage, where the focus of the explanation is introduced. hyperThemes announce the stages which compose the factorial explanation, signposting the information to be covered within them. hyperThemes are developed by Themes within the clause, the Theme being defined as the point of departure in the clause which creates a local context for the information presented by it and which indicates the speaker's angle on the experiential domain being developed. We subscribed to Moyano's (2016) view regarding the realization of unmarked Theme in Spanish by the explicit or elided participant signaled by verbal agreement, and the segmental realization of marked Theme by the placement of circumstances or non-agreeing participants in clause-initial position. Thus, in example 1, we analyzed the Theme of clause 1.3 as being realized by the elided element *esta relación*:

(1) Theme	Rheme
(1.1) <i>La relación docente-estudiantes</i>	<i>es el vínculo entre profesores y alumnos interactuando en un mismo entorno por mucho tiempo.</i>
(1.2) <i>Esta relación</i>	<i>puede ser positiva o negativa.</i>
(1.3) [<i>Esta relación</i>]	<i>puede ser cercana o un poco más explícita.</i>

Theme	Rheme
(1.1) The teacher-student relationship	is a bond between teachers and students interacting in the same environment over a long time.
(1.2) This relationship	can be positive or negative.
(1.3) [This relationship]	can be close or a little more explicit.

The analysis of ideational resources sought evidence of the ‘syndrome’ of features Halliday and Martin (1993) connect with lexical density in academic writing, which involves the packaging of information into nominal groups and the verbal realization of logic-semantic relations as meaning accumulates in the unfolding of explanations. We thus analyzed the realization of logic-semantic relations through conjunctions or relational processes (i.e., ‘leads to’, ‘causes’, ‘affects’), and students’ use of technical terms and ideational grammatical metaphors. Technical terms condense meanings within specialized experiential domains and cannot be decomposed into semantic figures realized by clauses, as is the case of the terms bolded in example 2 (*caudal, sistema de regulación, topografía del suelo*). Ideational grammatical metaphors also condense meanings in unfolding discourse, but, unlike technical terms, they can be decomposed into more congruent variants. For example, the italicized terms in example 2 can be decomposed into congruent clauses: *manejo* (handling)= ‘someone or something handles something’; *incremento* (increase)= ‘something increases’.

- (2) Los arroyos en Barranquilla son masas de aguas pesadas con un **caudal** bastante inestable. Estos dependen de la lluvia para poder aparecer si el lugar donde se forma no existe un **sistema de regulación** para el *manejo* de **cuerpos líquidos**, a su vez, existen factores como la *falta* de alcantarillado o incluso la **topografía del suelo** que facilita el *incremento* y *aparición* de los arroyos. Flash floods in Barranquilla are water masses with a quite unstable **course**, these depend on rain to be able to appear if the place where they occur lacks a **regulation system** for **water body management**, at the same time, there are factors such as lack of sewage system or even **ground topography** which facilitate the *increase* or *appearance* of flash floods.

Initially, two researchers independently assessed each paper as meeting or not meeting generic expectations regarding 1) contextual structure, 2) periodicity and Theme, and 3) ideational incongruence. Then, another pair of researchers revised the analysis and identified the strengths and weaknesses observed in students’ factorial explanations regarding their appropriation of generic features modeled throughout the instructional cycle.

3. Findings

This section reports salient qualitative findings observed in students’ peer-edited and independently written drafts of factorial explanations, beginning with the analysis of contextual structure, and continuing with findings pertaining to textual and ideational aspects. Findings from the drafts edited in small groups and the final paper versions are considered in tandem to highlight the continuity between the editing and writing stages of the pedagogical cycle.

3.1. Gaining control of contextual structure

The contrast between the first drafts and the edited drafts shows no revisions at the level of contextual structure, mainly because the small group writing and editing phase was aided by a graphic organizer signaling the contextual structure elements to be developed. However, students' final papers (which did not receive this type of scaffolding) show students' enhanced awareness of the contextual structure of the target genre. Students' factorial explanations were all structured to include Phenomenon Identification and Factor stages and their corresponding phases. Example 3 shows the Phenomenon Identification stage with clear phases, including a definition of academic success followed by an attributive clause introduced through a citation (*Pérez, Bracho y Elba (2017) consider...*). The student elaborates by referring to academic sources supporting the claim that success is generated by different agents and closes by stating the purpose of the text. The phasal unfolding in example 3 is illustrative of students' appropriation of semantic patterns beyond the clause, whereby definitions are expanded by attributive propositions and projections:

- (3) *El éxito académico se considera la medida de las capacidades del estudiante en un entorno académico, de manera que éste demuestre lo aprendido a lo largo del proceso educacional. Pérez, Bracho y Elba (2017) consideran que el rendimiento académico es una variante que se encuentra determinada por diferentes factores. Así mismo, diferentes académicos coinciden en que el rendimiento académico depende del impacto de los distintos agentes que lo generan. Dicho éxito puede manifestarse en las diferentes actividades académicas en las que el estudiantado se involucre. De este modo, el propósito de este texto es explicar algunos de estos factores.*

Academic success is defined as the extent of students' capacities within an academic context, in such a way that they show what they have learned throughout their educational process. **Pérez, Bracho and Elba (2017)** consider academic achievement a variable that is determined by different factors. **Likewise**, different scholars coincide in [affirming] that academic achievement depends on the impact of the different agents who generate it. Such achievement can manifest in the various academic activities students participate in. In this regard, the purpose of this text is to explain some of these factors.

The Factors stage also reveals purposeful appropriation of contextual structure. Example 4 uses an additive conjunction to introduce study habits as one associated Factor, and then interleaves explanatory details using a direct quotation followed by a clearly signaled interpretation. The conjunctions in example 4 link sets of propositions unfolding within the ideational structure of the text (Matthiessen & Teruya, 2015), with the closing move, introduced by textual Theme *en definitiva* ("all in all"), achieving harmonious closure by synthesizing the sources cited in the paragraph:

- (4) *Por otro lado, los hábitos de estudio son considerados por distintos autores otro factor causante del éxito académico. De esta manera “Los hábitos de estudio bien cimentados conllevan al alumno a tener un buen rendimiento académico” (Alva, 2017, p. 77). Es decir, si estos se implementan de manera adecuada, jugarán un papel fundamental en el desempeño del alumno. Así mismo, estudios de Hernández y García (1991) definen que los hábitos de estudio facilitan la realización de cualquier actividad, porque al ser rutinarios contribuyen a la rapidez mental para resolver cualquier problema (como se citó en Seder, 2006). Así pues, se puede tener certeza que estos hábitos son cruciales para facilitar y consolidar el buen proceso académico que lleve cualquier estudiante. En definitiva, ambos autores concuerdan en que este factor es el principal promotor del éxito académico, por todos los beneficios y ventajas que puede brindarle al estudiantado.*

On the other hand, study habits are considered by different authors as another causal factor in academic achievement. In this way, ‘well grounded study habits lead students to having a good academic performance’ (Alva, 2017, p. 77). **In other words**, if they are applied in an adequate way, they will play a fundamental role in students’ academic performance. Likewise, studies by Hernández and García (1991) affirm that study habits facilitate performance in any activity, because, by being performed daily, they contribute to mental speed in solving any problem (as cited in Seder, 2006). Therefore, it can be affirmed with certainty that these habits are crucial for facilitating and consolidating the academic processes carried out by any student. **All in all**, both authors agree that this factor is the main cause of academic success, because of all the benefits and advantages they can offer to students.

Some unconventional choices in staging and phasal unfolding indicate areas where students’ awareness of contextual structure requires further scaffolding. Example 5, for instance, shows low control of phasal content in a paragraph seeking to introduce economic factors affecting poverty, with the student failing to clearly signpost the Factor to be introduced. Such instances, where students’ choices made a weak contribution to the explanatory purpose of the text, suggest the need to include tasks furthering students’ control of causality in explanations:

- (5) *Es casi que una concepción colectiva, el pensamiento de que la educación de una persona influye de alguna u otra forma en su nivel de vida, de este modo, la calidad de la educación a la que accedas es directamente proporcional al precio que pagues por ella, lo cual es apoyado por autores como Salazar (1979), quien dice que el estrato socioeconómico influye en la educación formal que recibe una persona. Siguiendo esta línea, si un individuo no tiene la capacidad económica de pagar una buena educación, aprenderá deficientemente, lo cual se traduce en una limitación al momento de conseguir empleo, y el desempleo, por consecuencia lleva a la pobreza (Canaan, 2017).*

It is almost a collective understanding the belief that people’s education somehow influences their quality of life, therefore, the quality of the education you have access to is directly proportional to the price you pay for it, which is supported by authors like Salazar (1979), who says that income levels influence

the formal education someone receives. Following this line of thought, if an individual does not have the financial capacity to pay for quality education, their learning will be subpar, which translates into barriers for finding a job, and unemployment consequently leads to poverty (Canaan, 2017).

The analysis of students' factorial explanations suggests that contextual structure is one of the aspects where the scaffolding provided by GBP in initial literacy education shows the most effectiveness. Despite difficulties observed in the signposting of Factors in some instances, overall performance in independent writing indicates that students gained control of factorial explanation as a structured social activity guided by a purpose and unfolding in expected stages.

3.2. Gaining control of textual resources

Students' factorial explanations reflect the strategic deployment of periodicity and Theme resources to achieve texture across generic stages. Their use of these text-organizing resources allowed them to guide the reader in recognizing the realization of generic structure through the textual method of development (Fries, 1992). Editing choices reflect the organization of meanings around the text time principle, whereby events construed as Factors are presented in order of causal relevance (not in chronological order) (Martin & Rose, 2008). This orientation is shown in students' revisions during the small group editing phase, which signposts key entities related to the Phenomenon and Factors in Theme position, orienting readers into the causal relations under focus. Examples 6a and 6b, corresponding to the initial and peer-edited versions, illustrate this point:

(6)	Theme	Rheme
(6a)	<i>En este texto, vamos</i>	<i>a hablar de los factores de la relación docente-estudiantes.</i>
(6b)	<i>La relación docente-estudiantes</i>	<i>es un factor institucional que influye en el rendimiento académico.</i>
	Theme	Rheme
(6a)	In this text, we	we are going to talk about factors in the teacher-student relationship.
(6b)	The teacher-student relationship	is an institutional factor that influences academic performance.

Example 6a shows how students' initial writing thematized experiential elements with little informational value, such as marked Themes (*in this text*) lacking a clear relationship with the explanatory purpose at stake. After becoming aware of the text-

organizing function of Theme and Rheme, students achieved purposeful textual organization through strategic assignment of thematic prominence. This qualitative change is shown in the rewritten version in example 6b, where a key Factor entity (*the teacher-student relationship*) serves as the point of departure for the message.

Enhanced control of Theme as a text-organizing resource is also reflected in the independently written explanations, where students' thematic choices helped foreground the field-oriented nature of factorial explanations by assigning prominence to key experiential elements and cited authors. In example 7, the assignment of thematic status to the element *el éxito académico* indexes the experiential domain to be developed in the paragraph, and the thematization of authors in subsequent clauses highlights its academic nature:

(7) Theme	Rheme
(7.1) <i>El éxito académico</i> <i>de manera que este</i>	<i>se considera la medida de las capacidades del estudiante en un entorno académico,</i> <i>demuestre lo aprendido a lo largo del proceso educacional.</i>
(7.2) <i>Pérez, Bracho y Elba (2017),</i> <i>que el rendimiento académico</i>	<i>consideran</i> <i>es una variante que se encuentra determinada por diferentes factores.</i>
(7.3) <i>Así mismo, diferentes académicos</i>	<i>coinciden en que el rendimiento académico depende del impacto de los distintos agentes que lo generan.</i>
(7.4) <i>Dicho éxito</i>	<i>puede manifestarse en las diferentes actividades académicas en las que el estudiantado se involucre.</i>
(7.5) <i>De este modo, el propósito de este texto</i>	<i>es explicar algunos de estos factores.</i>
Theme	Rheme
(7.1) Academic achievement so that they	is considered [to be] the extent of students' capabilities within an academic environment, demonstrate what they have learned throughout their educational process.
(7.2) Pérez, Bracho and Elba (2017) that academic achievement	claim is a variable that is determined by different factors
(7.3) Likewise, different scholars	coincide in [affirming] that academic

- achievement depends on the impact of the different agents who generate it.
- (7.4) Such achievement can manifest in the various academic activities students participate in.
- (7.5) In this regard, the purpose of this text is to explain some of these factors.

Other textual resources used in students' independent writing served in managing the flow of information and marking logical relationships between rhetorical units and clauses. Example 7 shows the purposeful use of textual Themes to indicate additive relations (e.g., “*Así mismo, de este modo*”) along with various conjunction types to establish logical relations of causality, purpose, and concession. Students also demonstrated appropriation of referential cohesive resources (Halliday & Hasan, 1976) to achieve texture in their factorial explanations. Example 7 shows reiteration of experiential elements central to the topic through word repetition (*rendimiento académico* repeated 8 times, and *estudiantes* repeated 5 times), synonymy (*éxito académico* in clause 7.1 renamed as *rendimiento académico* in clause 7.2), and hypernymy (the element *rasgos de personalidad* in being referred to as *variable* in the same paragraph).

Although students' independent writing showed advances in their control of periodicity and Theme resources for achieving texture and cohesion, nonstrategic thematic choices in some of their drafts suggested areas in need of further scaffolding. For instance, example 8 lacks textual clues to indicate the factor being explained. Thematic choices in this excerpt obscure the method of development, with the choice of Theme seeming erratic and lexical and referential cohesion failing to keep track of key participants:

- | (8) Theme | Rheme |
|---------------------------------|---|
| (8.1) <i>Desempleo:</i> | <i>uno de los factores relevantes, afecta una gran parte de la población,</i> |
| (8.2) <i>las familias</i> | <i>no cuentan con ingresos estables que les permita resolver su problemática económica,</i> |
| (8.3) <i>lo que</i> | <i>influye en los jóvenes que optan por estudiar en la universidad,</i> |
| (8.4) <i>muchos</i> | <i>se limitan a no ingresar</i> |
| (8.5) <i>y quienes lo hacen</i> | <i>se mantienen por un corto periodo por la falta de recursos económicos Sevilla, Puerta. & Dávila, (2009).</i> |

- | Theme | Rheme |
|------------------------|---|
| (8.1) Unemployment: | One of the relevant factors, affects a large proportion of the population |
| (8.2) families | lack stable income which would allow them to solve their financial problems |
| (8.3) which | affects young people who choose to go to university |
| (8.4) Many of them | opt for not seeking admission |
| (8.5) And those who do | stay [enrolled] for a short period due to lack of financial resources (Sevilla, Puerta & Dávila, 2009). |

Our findings regarding students' increasing awareness of the textual dimension in factorial explanations support the conclusion that the contribution of first-year writing courses can go beyond the promotion of 'rhetorical awareness' (Carlino, 2013). Discovering the text-organizing potential of resources like Theme, conjunction, and referential cohesion can expand learners' repertoire of strategies for achieving texture in academic registers. Scaffolding seems especially called for in promoting control of Theme and referential cohesion, resources whose less direct textual manifestation poses special challenges for students' appropriation.

3.3. Gaining control of ideational resources

Students' editing choices reflect enhanced control of resources for realizing experiential meanings, reflected in the realization of entities, processes, and logical relations within generic stages and phases. Students were able to select relevant experiential meanings by focusing on the identification and definition of phenomena, the establishment of cause-effect relationships, and the construal of non-human participants. Examples 9a and 9b, showing first draft and edited versions respectively, illustrate growing control of experiential resources for realizing definitions, specifically, relational processes of symbolization (*define, mean, represent*):

- (9a) *La relación docente-estudiantes es el vínculo entre profesores y alumnos interactuando en un mismo entorno por mucho tiempo, esta relación puede ser positiva o negativa, puede ser cercana o un poco más explícita (Chiara, 2014).*
- (9b) *La relación docente-estudiantes **se define como la relación positiva o negativa que se crea entre el alumno y profesor por interactuar** en un mismo contexto durante un tiempo prolongado, puede ser cercana o un poco más explícita (Chiara, 2014).*
- (9a) The teacher-student relationship is a bond between teachers and students interacting in the same environment over a long time, this relationship can be positive or negative, it can be close or a little more explicit (Chiara, 2014).
- (9b) The teacher-student relationship **can be defined as a positive or negative relationship** that forms between students and teachers **as a result of interacting** in the same context over an extended time period, it can be close or a little more explicit (Chiara, 2014).

While the initial draft in example 9a realizes the definition as a relational identifying clause elaborated by two attributive clauses, the edited version in 9b packages 'positive or negative' as a Classifier of the noun 'relationship'. Students' independent drafts revealed similar gains concerning the condensation of meanings through technical terms and the realization of causality through processes. However, the use of ideational metaphors to realize semantic sequences and logical relationships of expansion remain underused in their writing, with only a minority of papers achieving

an adequate balance between technicality and metaphoricity. This adequate balance is illustrated in example 10, where the student construes figures of doing and happening as nominalizations (*contaminación, polución, deterioro, perjuicio*), condenses specialized meanings through technical terms (*fuentes hídricas*), and realizes causal relations as processes (*genera, puede ser generada*):

- (10) *La **contaminación o polución del agua se puede definir** como aquellos procesos y/o sustancias **que generan** algún deterioro o perjuicio en la calidad del agua y en las labores realizadas cerca o en el interior de las fuentes hídricas (Jiménez, 2005). Esta **afección puede ser generada** ante cualquier actividad de carácter formal o informal, ya sea honesta o deshonesta, que se vea motivada por una actitud muchas veces destructiva, ignorante, o en ciertos casos, ingenua (Dourojeanni & Jouravlev, 2001).*

Water contamination or pollution can be defined as a set of processes and/or substances **which cause** deterioration or damage in water quality and in the activities done near or within water sources (Jiménez, 2005). These **effects can be generated** by any formal or informal activity, whether honest or dishonest, which is motivated by an attitude [which is] often destructive, ignorant and, sometimes, naive (Dourojeanni & Jouravlev, 2001).

Although the saturation of evaluative terms in example 10 conflicts with the impersonal style characteristic of explanations, the student shows sufficient control of meaning condensing devices key to the target genre. The effective control of meaning condensing resources in example 10 contrasts with the inconsistent balance of technicality and metaphoricity in example 11, where the writer's use of intricate clause complexes shows the influence of spoken genres and reduces the comprehensibility and sophistication of her academic prose:

- (11) *Los arroyos en Barranquilla son masas de aguas pesadas con un caudal bastante inestable, estos dependen de la lluvia para poder aparecer si el lugar donde se forma no existe un sistema de regulación para el manejo de cuerpos líquidos, a su vez, existen factores como la falta de alcantarillado o incluso la topografía del suelo que facilita el incremento y aparición de los arroyos, estos no proporcionan ningún beneficio a la ciudad y consigo traen desastres que dejan víctimas y daños monetarios, en el siguiente texto se explicará esos factores que ocasionan los arroyos empezando desde la topografía hasta el sistema de alcantarillado principal.*

Flash floods in Barranquilla are water masses with a quite unstable course, these depend on rain to be able to appear if the place where they occur lacks a regulation system for managing water bodies, at the same time, there are factors such as lack of sewage system or even ground topography which facilitate the increase or appearance of flash floods, these (floods) provide no benefit to the city and bring about disasters that cause victims and financial losses, in the present text are explained the factors which cause flash floods starting with topography through to the main sewage system.

Some students' selection of meanings for the realization of factorial explanation phases reflects the need for further scaffolding of ideational resources. Example 12 attempts to establish a causal relationship between poverty and natural disasters without elaborating on the claimed causal links. Although example 12 includes elements realizing causal meanings (bolded), it fails to account for the way natural disasters bring about poverty. The student engages in circular reasoning by claiming a causal relationship at the beginning and then reasserting its existence at the end (*it is absurd to deny*):

- (12) *Por otro lado, a partir de diferentes investigaciones se ha llegado a la conclusión de que los desastres naturales tienen una incidencia significativa sobre la pobreza de Colombia. Los desastres naturales se pueden clasificar como un factor cuya **causa** es independiente al hombre. Las condiciones de pobreza de un país son **causadas** principalmente a través de un desastre de gran intensidad. Dicho desastre, su **incidencia e impacto**, depende de las características geográficas de una región. (Sánchez, F., & Calderón, S., 2015). Así que, **es absurdo negar que** tales desastres sean algunos de los mayores causantes de la pobreza en Colombia.*

On the other hand, based on different studies, the conclusion has been reached that natural disasters have a significant effect on poverty in Colombia. Natural disasters can be classified as a factor whose **cause** is independent from human beings. Poverty conditions in a country are mainly **caused** by large scale disasters. Such disasters, their **occurrence** and **impact**, depend on the geographical conditions of a region (Sánchez, F. & Calderón, S., 2015). Thus, **it is absurd to deny that** such disasters are some of the main causes of poverty in Colombia.

Despite students generally showing an adequate balance of ideational resources in their factorial explanations, improvement in students' control of these resources was not as evident as observed with contextual structure and periodicity. More explicit and intensive scaffolding of ideational metaphor and causality seems to be required for this aim.

CONCLUSIONS

This study set out to investigate the pedagogical affordances enabled by a genre-based focus on initial academic literacy in Spanish L1, as reflected by the analysis of factorial explanations written by students in a writing course of first year. Regarding research question 1, students' editing choices provided evidence of adjustment of linguistic repertoires to generic expectations, observed in students' placement of key terms and metaphorical entities in Theme position, the realization of causal relations through relational processes, and the expression of appropriate evaluative stances. Regarding research question 2, students' factorial explanations showed the transfer of linguistic of knowledge co-constructed throughout the pedagogical cycle into

independent writing task performance. Although some weaknesses are observed in students' meaning-making strategies (especially the ideational type), their written productions showed uptake of linguistic resources for producing demanding academic genres at contextual, semantic, and lexicogrammatical strata. These findings contribute to substantiating the pedagogical value of scaffolding genre appropriation in initial university literacy. Sydney School genre-based pedagogy was found to introduce freshmen into:

“forms of oral and written language and communication [...] that are privileged, expected, cultivated, conventionalized, or ritualized, and, therefore, usually evaluated by instructors, institutions, editors, and others in educational and professional contexts” (Duff, 2010: 175).

Contrary to the claim that literacy foundation courses are irrelevant for disciplinary socialization (Carlino, 2013), this study shows that, with an adequate pedagogical orientation, these courses can contribute to the development of sophisticated linguistic resources instrumental for the construction of academic identities in written discourse. Although the development of academic literacies is a complex process requiring extended participation in literacy practices throughout and beyond the university curriculum (Bazerman, Little, Bethel, Chvkin, Fouquette & Garufi, 2005; Navarro, 2019), first-year writing courses can become meaningful literacy experiences promoting the incorporation of key meaning-making resources into students' linguistic repertoires. Courses designed to promote conscious engagement with academic language in the initial period of students' studies can strengthen their acquaintance with academic registers and reduce their vulnerability to exclusion and failure. Sydney School genre-based pedagogy offers the pedagogical infrastructure needed for pursuing these aims by enabling the scaffolding of meaning-making capabilities towards gradual autonomy and the critical appropriation of socially valued registers (Rose & Acevedo, 2017). Although this study shows evidence of students' ongoing linguistic development, there is a need for investigating the transferability of the skills learned within these courses to future writing tasks with resembling social purposes (e.g., explanations), especially within embedded literacy schemes featuring writing-intensive disciplinary courses throughout the university curriculum.

REFERENCES

- Álvarez, S., Benítez, T. & Rosado, N. (2018). Español académico para aprender en las disciplinas: Perspectivas de la implementación de un programa institucional para el desarrollo de la competencia comunicativa en la educación superior. *Revista Nebrija de Lingüística Aplicada a la Enseñanza de Lenguas*, 12(24), 33-55.
- Bazerman, Ch., Little, J., Bethel, L., Chavkin, T., Fouquette, D. & Garufi, J. (2005). *Reference Guide to Writing Across the Curriculum*. West Lafayette: Parlor Press.

- Benítez, T., Guariguata, Y. & Pérez, A. (2021). Pedagogía de géneros textuales para fomentar engagement en la escritura académica en educación superior. *Literatura y Lingüística*, 43, 309-348. DOI: <http://dx.doi.org/10.29344/0717621x.43.2124>
- Benítez, T., Barletta, N., Chamorro, D., Mizuno, J. & Moss, G. (2018). Reading and Writing Across the Curriculum. In A. Sellami-Baklouti & L. Fontaine (Eds.), *Perspectives from Systemic Functional Linguistics: An Applicable Theory of Language* (pp. 346-367). New York: Routledge.
- Carlino, P. (2013). Alfabetización académica diez años después. *Revista Mexicana de Investigación Educativa*, 18(57), 355-381.
- Carstens, A. (2011). Meaning-Making in Academic Writing: A Comparative Analysis of pre-and post-Intervention Essays. *Language Matters*, 42(1), 3-21.
- Christie, F. & Martin, J. (Eds.) (1997). *Genre and Institutions. Social Processes in the Workplace and School*. London: Cassell.
- Dreyfus, S., Humphrey, S., Mahboob, A. & Martin, J. R. (2016). *Genre Pedagogy in Higher Education: The SLATE project*. Basingstoke: Palgrave Macmillan.
- Duff, P.A. (2010). Language Socialization into Academic Discourse Communities. *Annual Review of Applied Linguistics*, 30, 169-192.
- Fries, P. (1992). The Structuring of Information in Written English Text. *Language Sciences*, 14(4), 461-488.
- Guerra-Lyons, J. & Rosado, N. (2020). On the Notion of Owning a Forest: Ideological Awareness and Genre-based Pedagogy in University Critical Literacy. *Documentação e Estudos em Lingüística Teórica e Aplicada*, 24(4), 1-28.
- Halliday, M.A.K & Hasan, R. (1976). *Cobesion in English*. London: Longman.
- Halliday, M.A.K. & Martin, J.R. (1993). *Writing Science: Literacy and Discursive Power*. London: Falmer.
- Humphrey, S. & Hao, J. (2013). Deconstructing Written Genres in Undergraduate Biology. *Linguistics and Human Sciences*. (Special Edition of the SLATE Project), 7, 29-53. Equinox
- Hyland, K. (2003). Genre-Based Pedagogies: A Social Response to Process. *Journal of Second Language Writing*, 12(1), 17-29.
- Hyland, K. (2015). Genre, Discipline and Identity. *Journal of English for Academic Purposes*, 19, 32-43.

- Macedo de, T. S. & Pagano, A. S. (2012). An Analysis of Citations in Written Academic Texts *Análise de Citações em Textos Acadêmicos Escritos. DELTA Documentação de Estudos em Linguística Teórica e Aplicada*, 27(2), 257-288.
- Martin, J. R. (1992). *English Text: System and Structure*. Amsterdam & Philadelphia: John Benjamins.
- Martin, J. R. & Rose, D. (2007). Interacting with Text: The Role of Dialogue in Learning to Read and Write. *Foreign Languages in China*, 4(5), 66-80.
- Martin J. R. & Rose, D. (2008). *Genre Relations. Mapping culture*. London: Equinox.
- Moyano, E. (2010). Escritura académica a lo largo de la carrera: Un programa institucional. *Revista Signos. Estudios de Lingüística*, 43(74), 465-488.
- Moyano, E. (2016). Theme in English and Spanish English Text Construction. *English Text Construction*, 9(1), 190-219.
- Moyano, E. (2017). Diseño e implementación de programas de lectura y escritura en el nivel universitario: Principios y estrategias. *Lenguas Modernas*, 50, 47-72.
- Moyano, E. (2018). La enseñanza de la lectura y la escritura académicas mediante programas a lo largo del curriculum universitario: Opción teórica, didáctica y de gestión. *D.E.L.T.A. - Documentação e Estudos em Linguística Teórica e Aplicada*, 34(1), 235-267.
- Moyano, E. I. & Guidice, J. (2016). Un programa de lectura y escritura universitario: Lineamientos teóricos, características y resultados de aplicación. *Revista Grafía*, 13(1), 33-59.
- Navarro, F. (2019). Aportes para una didáctica de la escritura académica basada en géneros discursivos. *D.E.L.T.A. - Documentação e Estudos Em Linguística Teórica e Aplicada*, 35(2), 1-32.
- Parodi, G. (2019). University Genres in Disciplinary Domains: Social Sciences and Humanities and Basic Sciences and Engineering. *D.E.L.T.A. - Documentação e Estudos em Linguística Teórica e Aplicada*, 25(2), 401-426.
- Pérez, A. & Rosado, N. (2019). Pedagogía del género discursivo científico: Una mirada desde una IES privada en Colombia. *Lengua y Habla*, 23, 579-599.
- Rojas, D. (2017). Alfabetización académica y pedagogía de género discursivo en la lingüística sistémico funcional: Una experiencia de trabajo. *Revista Signos. Estudios de Lingüística*, 49(1), 224-249.

- Rose, D. & Acevedo, C. (2006). Closing the Gap and Accelerating Learning in the Middle Years of Schooling. *Australian Journal of Language and Literacy*, 14(2), 32-45.
- Rose, D. & Acevedo, C. (2017). Learning to Write, Reading to Learn: Background and Development of Genre-Based Literacy Improvement Projects in Australia. *Lenguaje y textos*, 46, 7-18.
- Rose, D. & Martin, J. (2012). *Learning to Write, Reading to Learn: Genre, Knowledge and Pedagogy in the Sydney School*. Sheffield: Equinox Publishing.
- Ryshina-Pankova, M. (2011). Developmental Changes in the Use of Interactional Resources: Persuading the Reader in FL Book Reviews. *Journal of Second Language Writing*, 20(4), 243-256.
- Thaiss, Ch., Bräuer, G., Carlino, P., Ganobcsik-Williams, L. & Sinha, A. (2012). *Writing Programs Worldwide: Profiles of Academic Writing in Many Places*. Fort Collins, Colorado: The WAC Clearinghouse.
- Van de Pol, J., Volman, M. & Beishuizen, J. (2010). Scaffolding in Teacher–Student Interaction: A Decade of Research. *Educational Psychology Review*, 22(3), 271-297.
- Wardle, E. (2009). Mutt genres and the Goal of FYC: Can We help students write the genres of the university? *College Composition and Communication*, 60(4), 765-789.
- Wingate, U. (2012). Using Academic Literacies and Genre-Based Models for Academic Writing Instruction: A ‘Literacy’ Journey. *Journal of English for Academic Purposes*, 11, 26-37.