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Writing, Interdisciplinarity, and Teamwork: What We Have Learned from Exploring Workplace Writing Experiences of Colombian Alumni

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Abstract: This chapter presents a qualitative project aimed at contributing studies that aggregate data on workplace writing of Colombian alumni from Ecology, Communication, Advertising, Graphic Design, Speech Therapy, and Spanish Teacher Education. The analysis shed light on disciplinary, interdisciplinary, and teamwork-oriented features of professional writing across fields. Our data provide evidence to state that a national large-scale assessment applied in Colombia is exclusively evaluating individual performances on linguistic writing, while our results of alumni workplace experiences reveal collective, interdisciplinary, intra- and interorganizational interactions and interplays among linguistic writing, multimodal writing, and digital technologies.

Reflection:

The exchange of experiences and methodologies with participants from other contexts, in the IRC workshops, allowed us to recognize that methodological actions are being tried out to study writing that go beyond analysis of texts, application of questionnaires and carrying out of interviews, and

1 Please read the opening statement for this collection, “Editing in US-Based International Publications: A Position Statement,” before reading this chapter.

that there are as many methodological paths as there are fields of knowledge for analysis. In the workshops, we were also able to recognize points of convergence in studies carried out in different contexts. Thus far, having the opportunity to participate in international networks allowed us to learn from colleagues around the world or affiliated with different fields associated with writing, teaching and learning in Higher Education (e.g., Textual Linguistics, Applied Linguistics, Systemic Functional Linguistics, Language Didactics, Communication studies, Writing studies, and Genre Studies). Transnational conversations help us to understand that any effort will be well-received to support higher education students to explore, utilize, and reflect on the multiple existences of writing to become citizens and professionals. Participating in these international and/or interdisciplinary encounters nourishes methodologies, and, especially, challenges how to create “panoramic” data and analysis to capture complexities of the multiple existences of writing. Few studies, at least in Spanish, explore the workplace writing experiences of former students. Opportunities to learn about professional writing in different regions foster new research related to local and broader relationships between economies, cultures and languages. International and interdisciplinary encounters create a large panorama of variations and commonalities that writing researchers and instructors might consider in framing the scope of their initiatives. In particular, the study we will further present is an effort to bring together colleagues from diverse fields of affiliation (Advertising, Communication, Education, and Writing instruction) who also are interested in exploring how writing emerges in work experiences of different fields (Advertising, Communication & Journalism, Graphic Design, Ecology, Spanish-Teacher Education, and Speech Therapy) to “weave” data contributing on disciplinary and professional writing and communication for the Latin American region.

Institutional Context

The study collected data from four Colombian universities located in different regions of the country. The participating researchers had previous collegial and networking experiences and were affiliated to these four institutions. Two universities are located in the South-west of the country, Universidad del Valle and Universidad Autónoma de Occidente, in one of the main cities of Colombia, Santiago de Cali. The other university, Pontificia Universidad Javeriana, was located in the Capital of Colombia, Bogotá D.C., and the other, Universidad de la Amazonía, is located in the capital of a state in the South-east of the country. Two universities were public, Universidad del

Valle and Universidad de la Amazonía, and two were private, Universidad Autónoma de Occidente and Pontificia Universidad Javeriana (Figure 4.1). Table 4.1 also describes general features of the universities that were part of the research context.

The Colombian public universities after Independence (1810) and the Modernism period (from 1920) have had high influence in nationwide social and political movements. Before the Independence period, most of the universities were led by Catholic communities; the oldest current Colombian universities were founded during this period. However, supporting higher education with public funding has been also challenging; in many regions of the country, alliances between Catholic communities, or local and industrial economies and universities, have centralized and supported academic programs of private universities in the main cities.

Overall, having an undergraduate degree in Colombia is an opportunity, on the one hand, to join the professional and employment national market, and, on the other, contribute to linking development and industrial national progress.

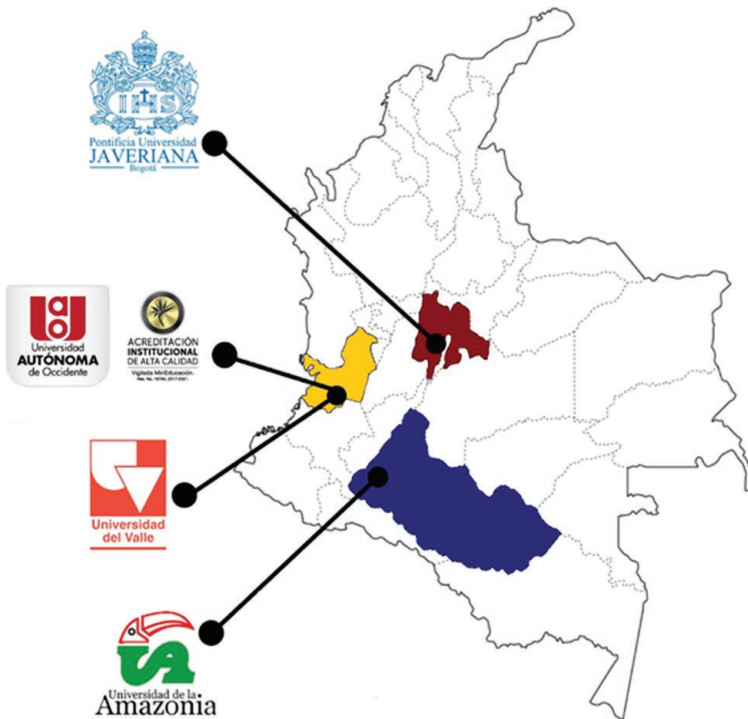


Figure 4.1. Geographic location of participating universities.
Source. Authors' elaboration based on authors' information.

Table 4.1. Comparative Description of Participating Universities

University campus features of the undergraduate programs	Speech Therapy	Ecology	Spanish-Teacher Education	Advertising, Communication & Journalism, Graphic Design
Name of the University	Universidad del Valle	Pontificia Universidad Javeriana	Universidad de la Amazonía	Universidad Autónoma de Occidente
Campus location within the country	South west	The Colombian capital	South east	South west
City and state of the campus location	Cali, Valle	Bogotá, Cundinamarca	Florencia, Caquetá	Cali, Valle
Foundation year of the University	1945	1623	1982	1970
Type of university	Public	Private	Public	Private
Student population in the university in 2019	25.868	18.725	9.240	8.569
Foundation year of the undergraduate program	1981	1995	1978	Advertising 1998 Communication & Journalism 1986 Graphic Design 2000
Student population in the undergraduate program in 2019	1.192	305	276	1.772
Alumni of the undergraduate program in 2019	3.270	1.014	872	3.971

<p>Undergraduate program objective according to official and public information of the institutional websites</p>	<p>Speech Therapy To educate a professional who works for the communicative well-being of children, adolescents, adults and the elderly who have variations or disabilities in communication or who are at risk of acquiring them, in the components of health promotion and communicative well-being, prevention of deficiencies in the structures and body functions of the biopsychosocial processes of communication and swallowing, habilitation or rehabilitation of communicative disabilities and linguistic activities and equalization of opportunities for social participation</p> <p>Ecology To train professionals capable of conducting scientific research to generate knowledge; leaders who contribute to the understanding of natural systems and their interaction with social systems in order to create solutions for environmental problems.</p> <p>Spanish-Teacher Education To train competent teachers for teaching Literature and Spanish Language in elementary and secondary education.</p> <p>Advertising To train ethical and socially responsible people, professionally competent to work in planning, production, circulation, and evaluation of persuasive, pertinent, effective communication strategies, with high contextual impact that fulfill tactical purposes contributing to the strategic objectives of public and private organizations.</p> <p>Communication & Journalism To train Social Communicators - Journalists who are socially responsible and professionally competent to work interdisciplinary in the planning, production, circulation and evaluation of messages, channels and acts of communication that contribute to the social construction of meaning and the direction of socio-cultural changes in all areas of society.</p> <p>Graphic Design To respond to diverse demands of representation (symbolic or functional) that society poses to communication needs between individuals. For the performance of this profession, techniques are needed for development of visual thinking, as well as for necessary competences to utilize diverse graphics within different formats and on varied material supports, generating messages that satisfactorily comply with the function for which they have been designed according to social demands.</p>
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Introduction

In Colombia, college writing development might be characterized as an immersion process (Beaufort, 1999) or enculturation (Carrasco et al., 2012) past the first-year course, rather than being instructed by planned, advanced,

sequential writing experiences offered through writing programs or other similar initiatives. This situation is similar to that in most Latin American countries according to the data collected in the study titled “Writing initiatives in higher education, ILEES Latin America” (Narvaez-Cardona, 2016a).

A national higher education large-scale assessment in the form of a test has been applied in Colombia since 2010 as part of a public policy of quality education assurance. Colombian undergraduates who have completed 75% of their major credits must take the test. This assessment includes two sections: a disciplinary-oriented section that evaluates disciplinary and professional knowledge; the other section is declared as “generic knowledge-oriented” and applied to all undergraduates regardless of their disciplinary and professional affiliations. This generic section assesses: a) written communication in Spanish; b) quantitative skills; c) problem solving; d) interpersonal understanding; and, e) reading skills in Spanish and English (ICFES, 2018).

The students are requested to write either an academic essay or a report contrasting two readings. The assessment guidelines state that results: i) inform universities about writing development after undergraduate curriculum experiences; ii) indicate student preparedness for workplace writing; and, iii) alert employers about writing performances of alumni (ICFES, 2018).

The large-scale assessment framework suggests that written communication is a generic skill. However, U.S. Rhetorical studies on writing, learning and development in Higher Ed and workplace have shown writing variation depends on, among other issues: diverse usage and functions of writing across learning and participation contexts other than schooling and academic ones (e.g., workplace and community); influence of curriculum experiences; personal and individual dispositions; and, specific ways of thinking and doing associated with professional and disciplinary identities (Bazerman et al., 2018; Beaufort, 2008; Carroll, 2002; Devitt, 2004; Freedman, 2003; Freedman & Medway, 2003; Gere, 2019; Paltridge et al., 2012).

Likewise, in Latin America and Colombia, there are studies describing disciplinary and institutional writing variations throughout undergraduate and graduate experiences (Pérez-Abril & Rincón-Bonilla, 2013; Rincón Bonilla & Gil Rojas, 2010;), based primarily on the analysis of professional and disciplinary texts and interviews with faculty leading advanced courses (Laco & Ávila, 2012; Natale & Stagnaro, 2012; Navarro, 2012, 2013; Navarro & Chiodi, 2013; Parodi, 2008, 2009; Parodi & Gramajo, 2003). A literature review conducted in Spanish shows that publications are mainly essay-articles rather than empirical studies; this latter utilize linguistic perspectives of writing to describe textual and grammar conventions (Álvarez et al., 2012; Arnoux et al., 2016; Bach & López Ferrero, 2011; Cassany, 2004; González,

2010; González & Vega, 2013; González de la Torre, 2011; López Ferrero, 2002; Marinkovich et al., 2017; Mateos Cortés et al., 2016; Morales, 2010; Narvaez-Cardona, 2018; Ortega et al., 2017; Sánchez Upegui, 2016; Vázquez Aprá et al., 2014). Furthermore, studies published in English seem to mainly focus on Engineering and Business (Bourelle, 2015; Clayson, 2018; Conrad, 2017; Hynninen, 2018; Johnson et al., 2016; Lentz, 2013; Leydens, 2008; Narvaez-Cardona, 2016b, 2018; Nelson, 2003). Few studies, at least in Spanish, explore writing workplace experiences of alumni.

The Colombian higher education large-scale assessment is important to make visible the measurement of undergraduate writing development as a key aspect of higher education quality in the 21st century. However, this assessment might not be enough for universities to inform alumni writing development, and specifically student preparedness for workplace writing since results are based on the production of a text in the context of a large-scale assessment. Therefore, in this chapter we will present data of a qualitative project aimed at contributing studies to aggregate data on alumni workplace writing.

Framework

The study is framed within international contributions of the field of Literacy Studies. Therefore, we assume that writing and communication are interwoven and socially, historically, and culturally situated to be seen as constitutive of human collective activity (Brandt, 2014). In particular, the study takes contributions from the U.S scholarship integrating Activity Theory into the field of Writing Studies. This framework is useful to describe human actions, especially professional performance as driven towards results; thus, language becomes, simultaneously, a mediating tool and final products weaving collective human activity. This phenomenon is structured by roles, hierarchies, and contradictions due to overlapping personal motives and collective goals, which also brings opportunities for individual or group transformation (Engeström, 2001; Spinuzzi, 2015). Since language can emerge as a tool, intermediate product (e.g., emails or WhatsApp threads, tables, graphics), and final products (e.g., printed or digital deliverables of professional projects) in any collective human activity, this study assumes that “language”, as activated in literacy practices, is used to create professional contents through diverse materialities besides linguistic forms (Kress, 2005).

We also embrace the Communities of Practice framework (Blackmore, 2010; Wenger, 2010), since characterizing workplace writing and communication might benefit from understanding writing learning and expertise achievement as part of group participation and membership development

(Wenger, 2010). This approach is useful to explore workplace writing and communication experiences embedded within collective human actions and continuing learning opportunities; consequently, expertise is not seen as a set of knowledge and skills that will be entirely acquired and controlled by a single person in a static life moment; rather expertise might be knowledge and abilities that may be dispersed, articulated, and mastered by a group, depending on conditions of the activity and goals that are pursued (Blackmore, 2010; Chaiklin & Lave, 2001; Spinuzzi, 2015; Wenger, 2010).

To explore professional writing and communication, we made distinctions between professional genres (e.g., business plans or patient files), and academic genres (e.g., essays or theses) (Parodi, 2010). Both types of genres are part of discourse communities (Gotti, 2008), but we focused on how alumni as practitioners from their fields reported how writing practices, communication, and texts were part of their professional experiences.

Therefore, to initially characterize writing and communication within and across the fields that were studied, we conducted exploratory and non-systematic reviews of publications in Spanish and a few in English that we will present as follows. The literature review suggests that in Communication and Advertising, the publications primarily conceptualize and study writing as “composition” (grammar and syntax) (Álvarez, 2016; De Aguinaga, 2000; Londoño, 2015; Ospina, 2013; Sánchez, 2017), and, also, they articulate composition and literary discourses (Akinbode, 2012; Hernández, 2010; Guerrero & Herrera, 2012). However, in Design, some publications in English highlight the interplay between writing and speaking to make decisions for solving professional problems by utilizing linguistic and graphic resources. These studies integrate the key role of visual expressions in the generation of ideas (e.g., drawing and sketching) (Garner, 2001; Tan & Melles, 2010; Stones & Cassidy, 2010; Van der Lugt, 2000). In Advertising and Design, we also found studies focusing on rhetorical and practical effects of professional decisions and interventions (Nini, 2006; Riaño, 2016; Soar, 2002; Spinuzzi, 2005).

Humanistic and literary-oriented writing seem to nourish the fields of Advertising, Ecology, and Communication. In Advertising, the use of poetry and literary resources is mentioned (Hernández, 2010), while in Ecology, writing to develop ecological thinking is integrated, particularly in U.S. studies (Baker, 2014; Netzley, 1999; Peary & Hunley, 2015; Preczewski et al., 2009; Wisenthal, 2016); finally, in Communication, literature and writing are intertwined in genres such as chronicle, documentary, and film (Londoño, 2015; Puerta, 2011). In Communication, we also noticed that journalism-oriented writing is primarily guided by structuralist perspectives to produce diverse genres as news, podcasts, and special reports (Álvarez, 2016; De Aguinaga,

2000; Sánchez Upegui, 2016). As for interdisciplinary writing and communication, we found studies in Ecology (Anderson & Runciman, 2000; Balgopal et al., 2012; Dobrin, 2012; Hada, 2008; Redford & Taber, 2000), and Speech Therapy (Hill & Griswold, 2013).

By articulating the framework of Activity Theory into the field of the Writing Studies, and based on the exploratory literature review across the fields that were studied, we decided to describe variations of professional workplace writing and communication taking into account diverse contents and materiality, such as images, audios, or graphics, besides the linguistic ones (Kress, 2005).

Methodology

The study was conducted by an interdisciplinary research team (2017–2019) that explored variations on workplace writing and communication of Colombian alumni from Ecology, Communication, Advertising, Graphic Design, Speech Therapy, and Spanish Teacher Education, who were affiliated with four Colombian universities. The research team consisted of five researchers and five research assistants affiliated with the fields of Education, Linguistics, Writing Studies, Communication-Journalism, and Advertising.

The exploration of challenging professional experiences was used as a methodological basis for data collection. We assume persons are always capable of learning, especially when they face non-routine experiences that demand knowledge transformation (Engeström & Sannino, 2010; Rounsaville, 2012; Tuomi-Gröhn & Engeström, 2003). Therefore, we asked alumni for self-reports about challenging professional experiences and how writing was related to them. Since we worked under a literacy framework, our analyses were focused on how writers talked about writing and collective efforts to create texts. The data was collected in two phases: 1: Designing, piloting and applying a qualitative questionnaire on professional workplace writing to alumni from four Colombian universities and different fields; and, phase 2: Analyzing case studies on challenging professional experiences voluntarily reported by the alumni who had participated in the phase 1.

Between January and November 2018, we created an alumni database and conducted participant recruitment for a qualitative questionnaire on professional writing experiences. Selection of the fields and universities were made by academic proximity among the participating researchers, who were affiliated with the four universities located in different regions of the country. The participant recruitment was carried out through different strategies such as: i) mailing the digital questionnaire to those registered in databases from the alumni offices or the undergraduate program directors; ii) mailing the digital questionnaire to

former students of the participating researchers; and, iii) distributing a printed questionnaire in alumni face-to-face meetings or events. Given these diverse strategies of data collection, response rates could not be calculated.

The questionnaire had 18 open-ended questions (except for question 11) that were grouped into four sections. The first section of the questionnaire requested personal and professional information: 1. Organization name; 2. Entailment time; 3. Appointment; 4. Appointment date; 5. Undergraduate program; 6. Graduation year; 7. If applied, graduate programs. The next section characterized a professional experience and, therefore, participants were asked to select a challenging professional project to answer the following questions: 8. Topic or project name (if possible); 9. Why the project was challenging; 10. Deliverables produced; 11. The option best describing activities in the project (a. You worked with other colleagues from your organization; b. You worked with other colleagues from other organizations; and, c. You worked with colleagues from your organization and other organizations); 12. Role in the project. The third section asked about professional writing: 13. In what situations writing was utilized to work on the challenging project mentioned; 14. In what situations cooperative writing with other colleagues was utilized to work on the challenging project mentioned; 15. Personal writing responsibilities in the challenging project; 16. Colleagues' writing responsibilities in the challenging project; 17. The hardest piece or situation to write for the challenging project; and, 18. The easiest piece or situation to write for the challenging project. In a final section, participants were asked for their personal information in case they agreed to be contacted to provide further information.

The open-ended responses were coded inductively, and the research team held approximately four meetings, between May and November 2018, to calibrate coding procedures and generate a codebook. The questionnaire responses were organized in an excel database; each column was a category, and responses within cells were inductively coding. During the meetings, we iteratively applied and compared coding decision making, and agreed on names that better suited data content description. Table 4.2 displays examples of the coding for the question # 9: Why the project was challenging.

Since informant participation was voluntary and the response rates were not tracked, the results mainly describe trends based on counts (Bonilla-García & López-Suárez, 2016; Merriam, 1998; Schettini & Cortazzo, 2015). Besides, our qualitative study aim was to contribute data for the Latin American region on variations of professional writing practices across fields; therefore, analytical generalization regarding similarities and differences between our data and other professional writing contexts will be an opportunity if other researchers compare their data against our work.

Table 4.2. Examples of Coding

Examples of codes	Sample original responses interpreted into English	Original responses in Spanish
Knowing lacking on project management, funding, and leadership	Proposing and conducting assessment of school abilities programs	Diseñar y ejecutar un programa de evaluación de habilidades escolares
Project outcome scope (local, nationwide, many details, pioneer, and/or degree of innovation)	This project was part of the city development plan and was carried out with community participants [victims] who had to validate the process.	Era una necesidad en cumplimiento del plan operativo, era de alcance municipal y debía desarrollarse de manera participativa con la comunidad y validado por las instancias de participación de las víctimas.
Collecting and summarizing diverse sources (research and synthesis)	New knowledge generation and study responsibilities while I was also working.	Generación de nuevos conocimientos y la responsabilidad de estudiar y trabajar al mismo tiempo.

The final number of questionnaires collected by fields is as follows: Communication, Advertising and Design: 103; Speech therapy: 24; Ecology: 24; and, Spanish Teacher Education: 39. In some cases when coding the open answers, we utilized more than one code that emerged from the data; therefore, some counts were greater than the total number of questionnaires.

Regarding the case studies, participation was also voluntary and data collection fulfilled IRB protocols. The participants were asked to: a) participate in an interview about a challenging professional project that they were conducting at the time of data collection; and, b) provide emails, digital files and/or WhatsApp threads they exchanged with other people who were related to the challenging professional project. The alumni were contacted by email to send the interview protocol and the informed consent; the interviews, approximately 1-hour long, were conducted through Zoom. The interview protocol is as follows:

1. What current project do you find challenging, since it does not resemble previous experiences?
2. Why is it challenging?
3. What is the project goal?
4. Describe the project methodology.
5. With whom do you interact, how and for what purpose in the project? What roles do these people have in the project?
6. What is the project timeline?
7. Describe project stages.
8. What has been your role in the project so far?

- 9. How is the project implementation evaluated?
- 10. What is the current stage of the project?
- 11. What have you learned so far from this experience?

The artifacts collected (emails, digital files and/or WhatsApp threads) and orthographic transcriptions of the interviews were organized in Excel files. A deductive content analysis was applied utilizing a binary coding of “Yes” or “No” (Y/N) on the following categories: i) Explicit presence of linguistic writing; ii) Presence of non-linguistic writing or multimodal writing; iii) Cooperative presence of writing or composition; and, iv) Presence of digital technology to produce content. Table 4.3 presents definitions of these categories that relied on our theoretical frameworks regarding intersections among literacy, activity theory, communities of practice, and multimodality.

To compare cases across the fields, we focused on responses to the following questions:

- i. What current project do you find challenging, since it does not resemble previous experiences?
 - Why is it challenging?
 - What is the project goal?
 - Describe the project methodology.
 - With whom do you interact, how and for what purpose in the project? What roles do these people have in the project?
 - What has been your role in the project so far?
 - What have you learned so far from this experience?

Table 4.3. Definitions of Categories

Categories	Definition
Explicit presence of linguistic writing	Contents of artifacts or interviews statements associated with linguistic-textual and discursive dimensions of writing (e.g., textual structure, inclusion of sources, specific genres, grammar, editing, conventions, and spelling).
Presence of non-linguistic writing or multimodal writing	Contents of artifacts or interviews statements associated with multimodal dimensions of the productions (e.g., images, color, graphics, sound, spaces, videos, and multimodal genres).
Cooperative presence of writing or composition	Contents of artifacts or interviews statements associated with collective production (e.g., multiple authors/participants, roles, teams, and own and others' responsibilities in composition).
Presence of digital technology to produce content	Contents of artifacts or interviews statements associated with digital media (e.g., platforms, apps, software, social networks, and websites).

Table 4.4 shows index-terms and evidence that were taken into account to conduct deductive and binary coding to the interviews, transcriptions and artifacts (pictures, screenshots of WhatsApp messages and emails, or digital files exchanged by email or WhatsApp). The research team worked weekly during two months to cooperatively identify these index-terms and evidence.

Table 4.5 illustrates, for example, the type of analysis conducted on question: What have you learned so far, for case 1, based on the analytical categories presented in Table 4.3. The same table was applied to the other interviews' responses emerging from the all cases.

Table 4.4. Index-terms and Evidence to Conduct Coding of Interviews, Transcriptions and Artifacts

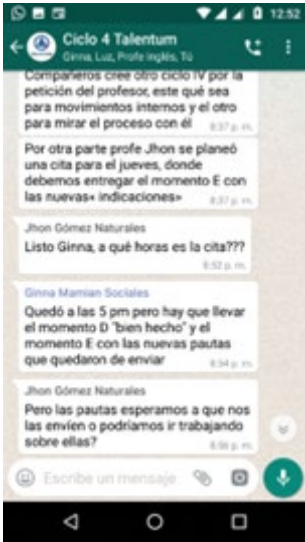
Type of information	Explicit presence of linguistic writing	Presence of non-linguistic writing or multimodal writing	Cooperative presence of writing or composition	Presence of digital technology to produce content
Index-terms from transcripts or written responses of alumni interviews	Protocol, Editing guidelines, Documents, Project, Project communication strategies, Design, contents, Content production, Podcast, communication strategy, Writing, production, Research, measurement, Evaluation, Values, Communication Project, process	Design, Podcast, Radio production, Values, Measurement	Support to authors, labs, Team, Group, Evaluation Process	Web text editing, Digital, Virtual, ICT culture, ICT digital transformation
Evidence from the artifacts	Writing, Design, Planning, Report	Design, Parts, Schedules, Image, Colors, Analysis, Transmedia Production, Multimedia, Crossmedia	Work teams, Colleagues	Digital Platforms

Table 4.5. Illustration of Analyzing Interview Responses

Case #	Response to question: What have you learned so far?	Explicit presence of linguistic writing	Index-terms or evidence from transcriptions and artifacts	Cooperative presence of writing or composition
1	<p>Aprendí metodológicamente la manera de planeación desde lo más particular a lo general, desde el lenguaje, manejo de los licenciados, currículo, actividades, objetivo, son muy precisos.</p> <p>I learned methodologically the way of planning from single activities to groups of them in time, taking into account how to describe them, managing the team, curriculum, activities, objectives; they are very precise.</p>	Yes	planning, how to describe them (lenguaje), curriculum, objectives	Yes
Index-terms or evidence from transcriptions and artifacts	Presence of digital technology to produce content	Index-terms or evidence from transcriptions and artifacts	Presence of non-linguistic writing or multimodal writing	Index-terms or evidence from transcriptions and artifacts
managing the team (manejo de los licenciados)	No	Not applied	No	Not applied

Furthermore, Table 4.6 illustrates a fragment of analyzing an artifact. Finally, in order to create analytical comparisons across the fields, we contrasted results from categories emerging from the coding, as possible.

Table 4.6. Illustration of Analyzing an Artifact

The actual artifact	Image name	#	File date, if available	File hour, if available
	Screenshot_2019022-125225.png	1	Not applied	08:37 p.m.
Explicit presence of linguistic writing	Index-terms or evidence from transcriptions and artifacts	Presence of digital technology to produce content	Index-terms or evidence from transcriptions and artifacts	Cooperative presence of writing or composition
Yes	guidelines	Yes	to send, working on, a WhatsApp group	Yes

Professional Workplace Writing Experiences across the Fields

Survey Data

Across the fields, about 90% of the participants were employees (Figure 4.2), and approximately 71% of them hold appointments associated with their undergraduate studies. In the Speech Therapy case, 29.6% of participants

mentioned occupations not necessarily associated with the field, such as teacher, cultural manager, or faculty member. Only 8.7% of participants across the fields reported venture initiatives or working in freelance services.

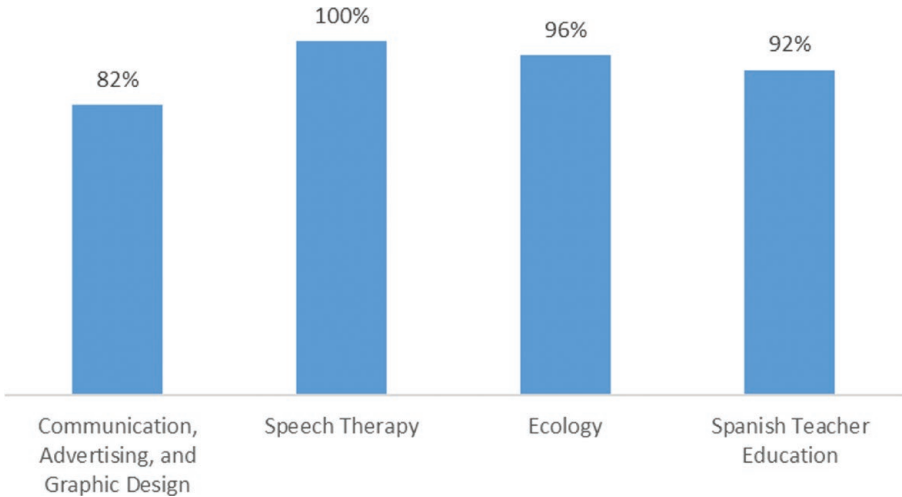


Figure 4.2. Employees versus fields.

As for occupations, the participants reported leadership roles carried out during the challenging professional projects across the fields: Communication, Design, and Advertising (96%), Ecology (59%), Speech Therapy (54%), and Spanish Teacher Education (19%) (Figure 4.3). Research-oriented occupations were only mentioned in Ecology (29%), and Speech Therapy (37.5%).

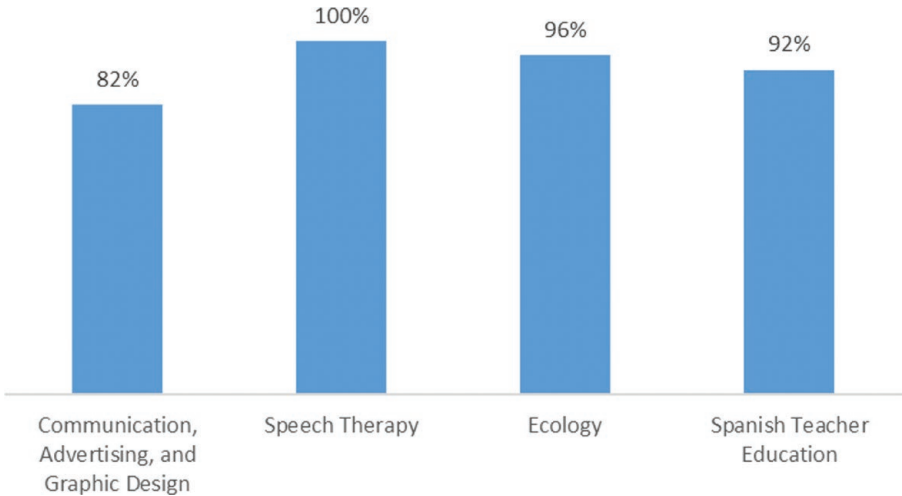


Figure 4.3. Project leadership versus fields.

Regarding challenging features of the projects, the most frequent mention was the scope of project results (e.g., local or nation-wide impacts, pioneering results, or transformational impacts) in the fields of Communication, Design, and Advertising (24.34%), Speech Therapy (41.67%), and Spanish Teacher Education (33.33%), and the most frequent mention in Ecology was project management (33.3%). (Most frequent mention highlighted in yellow in Table 4.7).

Table 4.7. Features of Challenging Projects

Features	Communication, Advertising, and Graphic Design	Speech Therapy	Ecology	Spanish-Teacher Education
Assessment and scope of the projects	24.34	41.67	0.00	33.33
Learning new aspects of professions	22.37	29.17	8.33	30.77
Project management	15.13	4.17	33.33	2.56
Interdisciplinary and transdisciplinary work	15.13	0.00	29.17	0.00
Rhetorical effects of contents	11.18	0.00	12.50	0.00
Personal learning experiences	9.87	4.17	4.17	20.51
Research and academic abilities	1.97	12.50	12.50	12.82

Genres associated with challenging workplace projects that are professionally oriented in Communication, Advertising, and Graphic Design (60.76%) and Spanish Teacher Education (47.06%), and research oriented in Ecology (54.17%) and Speech Therapy (37.50%) (Most frequent mention highlighted in yellow in Table 4.8). However, in Speech Therapy, responses were associated with academic/graduate rather than workplace experiences, and with research and scientific genres.

For the Teacher Education participants, the challenging projects were focused on teaching-centered roles (47.6%) and didactic processes (46.6%). This might explain why the analysis of Teacher Education results suggests that it is an “endogenous field,” mainly focused on classroom work and writing with colleagues (gray bars in Figure 4.4) in contrast to the other fields in which alumni reported higher interactions to write interdisciplinary and cooperatively (blue and orange bars Figure 4.4).

Table 4.8. Genres Associated with Challenging Workplace Projects

Genres	Communication, Advertising, and Graphic Design	Speech Therapy	Ecology	Spanish-Teacher Education
Professional genres	60.76	8.33	0.00	47.06
Projects	36.08	24.00	33.33	0.00
Events and Public relations	3.16	0.00	0.00	0.00
Research and scientific genres	0.00	37.50	54.17	5.88
Reports	0.00	20.83	0.00	38.24
Pedagogical documents	0.00	0.00	12.50	0.00
Guidelines and protocols	0.00	0.00	0.00	8.82

In fact, the top-down distribution of results regarding interdisciplinary interactions showed the following tendency: Communication, Design and Advertising (66%); Ecology (44%), Speech Therapy (39%), and Spanish Teacher education (21%) (orange bars in Figure 4.5).

In Ecology, writing cooperatively with other professions (73%) was highly present in contrast to the other fields (blue bars in Figure 4.5); while writing cooperatively with colleagues was again more present in Spanish Teacher Education (37%) (orange bars in Figure 4.6); and, writing cooperatively with bosses and project leaders was only slightly mentioned by alumni from Speech Therapy (3%) (gray bars in Figure 4.6).

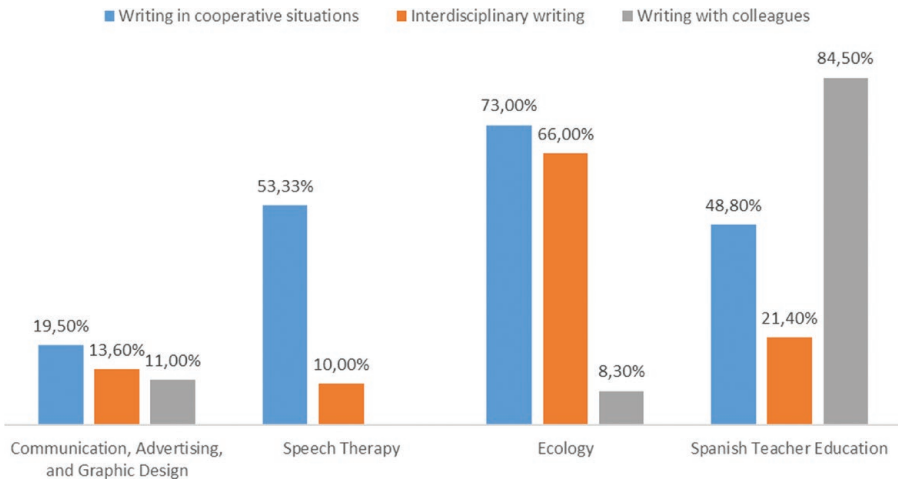


Figure 4.4. Writing and interactions.

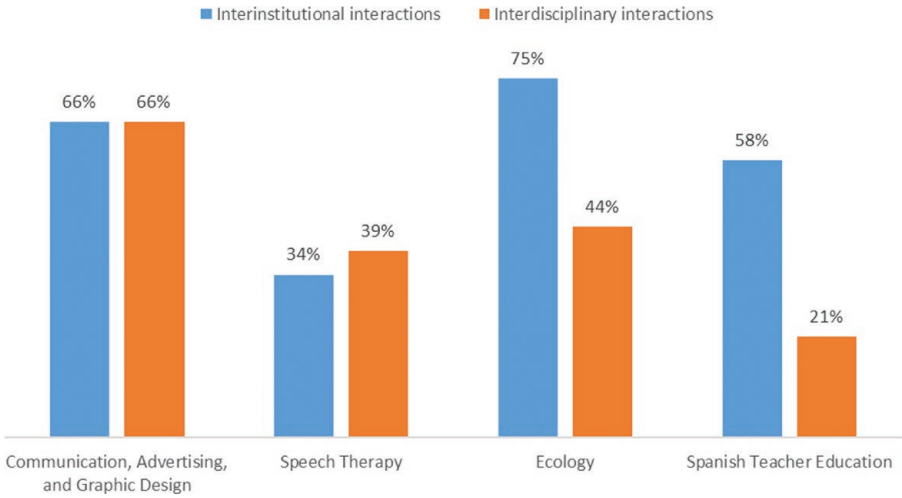


Figure 4.5. Interinstitutional interactions and interprofessional interactions.

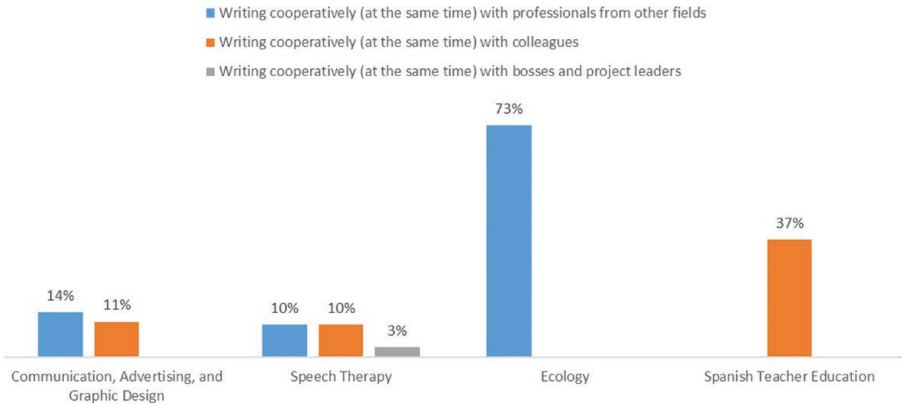


Figure 4.6. Interactions while writing cooperatively.

Regarding colleague roles in writing, colleagues who contribute with contents from their expertise were highly reported in Speech Therapy (71%) and Communication, Advertising, and Graphic Design (64%) in contrast to the other two fields (blue bars in Figure 4.7), and colleagues who contribute as reviewers and editors were more present in Ecology (50%) and Spanish Teacher Education (32) (orange bars in Figure 4.7).

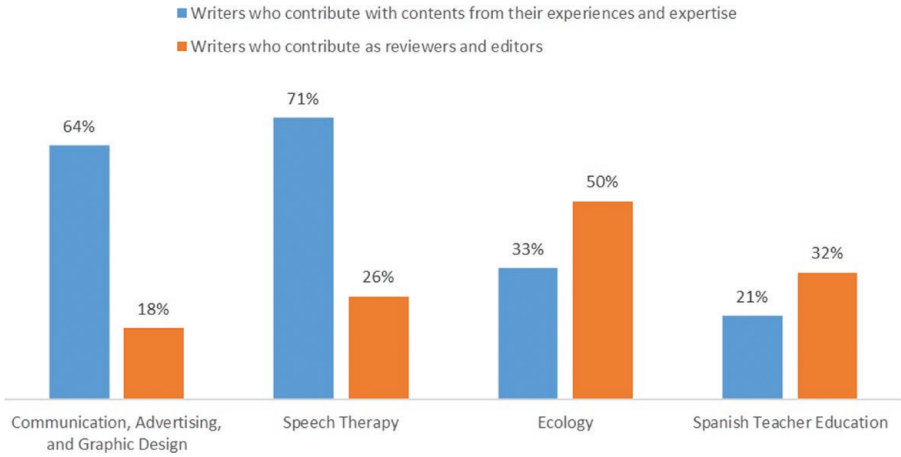


Figure 4.7. Writers' contributions.

The questionnaire responses about the hardest and easiest pieces or situations to write allowed us to identify writing knowledge and abilities that alumni might need to face in order to complete challenging projects:

- In Communication, Design, and Advertising, alumni reported the need to use writing with rhetorical effects (26.4%), address writing with rhetorical orientation, style, specialization and effectiveness towards audiences (34.3%), and create contents from multiple voices and/or with different formats/materials/uses (30.5%).
- The field of Speech Therapy is characterized by the preparation and delivery of reports/presentations (16.6%) and the production of “truthful” information for decision-making (26.2%). Professionals in this field also mentioned the preparation of reports/projects or reports/organization and systematization of information/content analyses (on follow-up individual cases, institutional/community projects, or academic/research projects) (51.7%).
- For the field of Ecology, writing for projects and their respective reports were often mentioned with emphasis on structuring proposals, defining objectives, collecting information, and completing final reports with methodology and result sections (41.6%).
- In the case of the Spanish Teacher Education, textual and grammar knowledge of written texts is expected (24.4%); especially, assuming writing as planning a manuscript that requires mastering cohesion and coherence (20.4%), as well as writing associated with textual planning (47%), and reporting and communicating professional experiences (54.2%).

Case Studies Data

Appendix 1 presents the final case studies that were constructed by voluntary participation of some of the participant alumni from the questionnaire. For the field of Communication, Advertising, and Design, seven cases were analyzed; four cases in Speech Therapy; two in Ecology; and one in Spanish Teacher Education.

The following analysis will be reported based on the categories described in Table 3 for the analysis of artifacts and orthographic transcriptions of the interviews.

Explicit Presence of Linguistic Writing

The analysis of the challenging projects shows that the explicit mention of linguistic writing is present in all the fields. In Communication, Advertising and Design, mentions of linguistic writing are present in (seven out seven cases), and were noted as what makes the projects challenging (six out seven cases); Linguistic writing in these fields was also related to the projects' objectives or goals (six out seven cases), and project methodologies (six out seven cases). Linguistic writing was also reported as part of the professional roles in most of the cases (five out seven cases), and it was needed for tracking project implementation (four out seven cases), and related to what alumni learned from the challenging projects (six out seven cases). Linguistic writing was also present in 82.4% of the artifacts associated with the projects reported in Communication, Advertising and Design.

In Ecology, in both cases, writing and composition were multimodal, multimedia and multigenre. These practices involved writing texts (combining texts, images and graphics), and videos; managing shared folders, writing emails, reports and guidelines.

Likewise in Speech Therapy, linguistic writing appeared in four out four cases. In three cases, it was related to the project objectives, and methodologies, and in four cases, it was associated with what alumni learned from the projects. 93.10% of the artifacts associated with the challenging projects included linguistic writing.

In the case of Spanish Teacher Education, linguistic writing was mainly associated with progress and final reports of the in-service-teacher program (lesson planning, classroom follow-up, tutor feedback, and final report). The reports included what had been done and further steps (comparative analysis of proposed and achieved goals, and new challenges based on the training experience).

Presence of Non-Linguistic Writing or Multimodal Writing

The use of multimodal writing was also present in all the fields. In Communication, Advertising and Design, multimodal writing appeared in five out seven cases, and was mentioned as a) the feature making the projects challenging (three out seven cases); b) part of the objective/goal projects (five out seven cases); and, c) part of what alumni learned from the projects (six out seven cases). 33% of artifacts associated with the challenging projects included multimodal writing.

In Speech Therapy, multimodal writing emerges in four out four cases, and it was mentioned as part of a) the objectives/goals (two out four cases); b) the project methodology (one out four cases); and, c) part of what alumni learned from the projects (three out four cases). 86.20% of the artifacts associated with the challenging projects included multimodal writing.

In Spanish Teacher Education, multimodal writing was necessary to create evidence of classroom non-participating observations (e.g., “when I made reports in which I included what was happening in a certain class and I included photographs, videos, everything in detail”).

Presence of Digital Technology to Produce Content

In Communication, Advertising and Design five out seven cases utilized digital technology to create content, and digital technology also appeared in 73.6% of the artifacts associated with the projects; however, digital technology to create content was considered a challenging feature of the projects in only two out seven cases. In most cases (five out seven cases), there was also the presence of digital technology to create methodological content of the projects, and it was mentioned only in one case as part of what alumni learned from the projects.

- In Ecology, while writing in Google Drive and through emails are mentioned, participants valued face-to-face interactions more than these digital forms, especially for fieldwork.
- In Speech Therapy, digital technology only emerges in one out four cases as part of the project methodology.
- In the Teacher Education case study, digital technology was associated with a specific platform where teachers’ follow-up reports were archived.

In general, mentions about digital technology usage to create content were low (six mentions out of 47 interview questions analyzed across the

cases). However, in 89.6% of the artifacts associated with the projects, the presence of digital technology to produce contents was a feature. It seems that participating alumni took digital technology for granted for writing and communication in the challenging projects.

Cooperative Presence of Writing or Composition

In Communication, Advertising, and Design, cooperative writing and composition was present in four out seven cases, and in three out four cases in Speech Therapy. In Communication, Advertising, and Design, cooperative writing and composition also made the projects challenging (three out seven cases); and, it was part of the project objective/goal in four out seven cases, while in Speech Therapy, there was no mention of cooperative writing and composition.

In Ecology, cooperative writing and composition was mostly focused on providing the project materials for the reports (i.e., emails, digital files and/or WhatsApp threads), since the final deliverable reviews were typically done by hired editors or other colleagues (e.g., bosses). According to the information provided by the alumni, in this field, to make revisions, practitioners are expected to be familiar with report formats, writing based on evidence, logical organization, and conceptual precision. To these practitioners, coming to agreement was challenging to teamwork, since they a) participated in interdisciplinary work; b) produced results for sponsors; c) readjusted timelines according to teamwork and fieldwork changes and report deadlines; and, d) communicated with lay audiences.

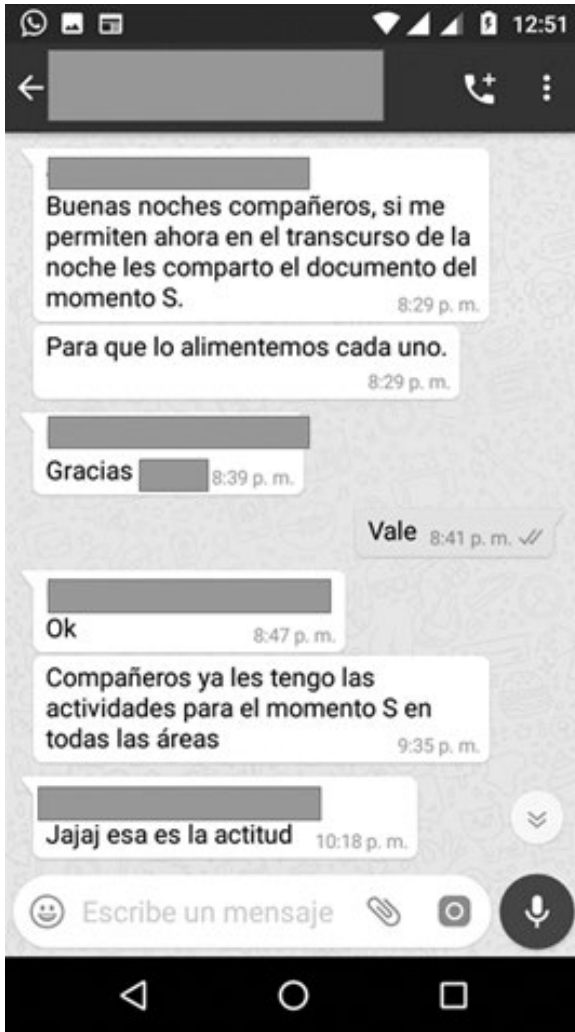
In Communication, Advertising, and Design, cooperative writing and composition was present for project decision making but not for content and deliverable production. In 47.2% of artifacts associated with projects, there was evidence of cooperative writing and composition; in 34% of these artifacts, there was evidence of cooperative decision making on composition and writing.

In Speech Therapy, 93.10% of the artifacts associated with the projects required cooperative writing and composition. Figure 4.8 is an example of how cooperative writing takes place, during a WhatsApp conversation, the team makes agreements for reviewing documents of a project related to designing guidelines.

In Spanish-Teacher Education, cooperative writing and composition was associated with teacher learning communities, and training workshops for tutors. Cooperative writing and composition were also mentioned at the time of assessment and project closure.

Original artifact

Interpretation into English



Good night, guys! I will send you the document tonight to have your feedback.

Thanks

Ok

Ok

Guys, I already designed all the activities for the guidelines

ha-ha great!

Figure 4.8. Example of cooperative writing.

Lessons Learned from Exploring Workplace Writing Experiences of Colombian Alumni

This study pointed to the need for further studies on distinctions in cooperative writing and composition as an individual practice in workplace

experiences. Our data confirms that alumni took roles as content contributors from their experience and domain in Communication, Advertising, Design, and Speech Therapy; in Ecology, alumni mentioned methodological complementarity; furthermore, in Communication, Advertising, and Design, they assumed reviewers' roles; and, in Speech Therapy, editing and reviewers' roles on formal writing features (mechanics and coherence), and persuasive and efficacy features of the contents.

In Communication, Advertising, Design, Ecology, and Speech Therapy, interdisciplinary, intra- and inter-organizational relationships were highly present in the data. On the contrary, Spanish Teacher Education might be seen as the most endogenous field. In the questionnaire and case study data, alumni mainly reported intraprofessional relationships in the same organization or with other organizations (with other teachers in the same or other disciplines). In a few cases, in Communication, Advertising, Design, and Speech Therapy, some mentions were identified about writing "simultaneously" with colleagues from the same field, from other fields, with bosses or project leaders. This data allowed us to start making distinctions between "collective writing work" (producing contents with others at different moments), and "cooperative writing and composition" (producing contents "simultaneously" with others, at the same time).

The "collective writing work" (producing contents with others at different moments) was more present in our data, mainly because, as colleagues often offer complementarity to what is produced, or because they assume roles as content reviewers.

Curriculum Recommendations

The collective and distributed nature of workplace writing responsibilities offered by this study could be simulated in the curriculum with group work and by differentiating roles in assignments (e.g., project leader versus project executor). Likewise, assignment evaluation of writing performance might be based on the achievement of diverse writing and composition responsibilities and performances and not only based on a final textual product which, as the data shows, in workplace experiences is the result of asymmetric and distributed responsibilities.

This difference between "collective writing work" (producing contents with others at different moments), and "cooperative writing and composition" (producing contents "simultaneously" with others, at the same time) is also important to inform curriculum designers in analyzing to what extent

curricula and subjects are mainly offering students to professionalizing collective experiences rather than interdisciplinary projects such as those we documented in our data.

The questionnaire results and the case studies suggest that, in all the fields, the alumni embrace to some degree, leadership and project coordination responsibilities. These occupational features emerging from our data might be useful to inform curriculum design to include opportunities in which students experience different roles and responsibilities, since workplace market seems to demand versatility to fulfill diverse professional roles.

These occupational leadership and coordination roles are also associated with writing expectations that alumni reported as challenging to face in the workplace. Therefore, the following writing knowledge might be offered as part of professional education:

- project writing, including evidence-oriented and progress reports that synthesize content from multiple voices and/or with different formats/materiality;
- content creation targeting diverse audiences, especially lay and interdisciplinary audiences; and,
- deliverable submission in tight timelines (project management).

Conclusion

This chapter reported a qualitative study to contribute with data on workplace writing in the context of Latin American writing studies. The analysis shed light on disciplinary, interdisciplinary, and teamwork-oriented features of professional writing across fields, which is not measured by the current Colombian large-scale assessment applied at the end of the undergraduate programs. Our data provide evidence to state that the national large-scale assessment is exclusively evaluating individual performances on linguistic writing, whereas our results of workplace experiences reveal the importance of collective, interdisciplinary, intra- and interorganizational interactions and interplays among linguistic writing, multimodal writing, and digital technologies. Therefore, universities are called upon to i) design institutional assessment programs that aggregate data to the current Colombian writing large-scale assessment results, and ii) carry out post-graduation undergraduate studies that might create a more comprehensive picture of the impact of writing curricula on alumni, especially on their professional experiences.

Acknowledgments

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Glossary

Academic essay: Argumentative writing asked for the National higher education large-scale assessment.

Academic genres: Genres utilized for learning and assessment across Higher Education (essays and theses).

Alfabetización académica: Latin-American pedagogical and scholarly field that encourages diverse curriculum initiatives and pedagogical research such as Writing Across the Curriculum (WAC) and Writing within Disciplines (WID) to support academic socialization and learning of disciplines and professions across tertiary educational levels.

Challenging professional project: Strategy utilized to data collection. It refers to a demanding collective activity for practitioners, both intellectually and in terms of capacities professional. This professional project was the context to explore workplace writing.

Colombian field on teaching reading and writing in Higher Education: Group of pedagogical practices developed since 2010 approximately particularly influenced by Language Didactics and Textual Linguistics, which have contributed with teaching processual approaches to writing as an individual experience, and descriptions of text prototypes, respectively. After 2010, other scholarly works have contributed from genre pedagogies.

Communities of Practice framework: An analytical concept, based on social learning systems, which serves as basis for analyzing emergent structures, complex relationships, self-organization, boundaries, negotiations, and changing identities of participants in collective activities. In the project, it was used to study writing as part of collective activity in workplaces.

Enculturation: In educational environments, social experience to learn without direct instruction.

IRB protocol: Ethical protocol fulfilled to human subject research.

Genres: Theoretical category to study writing as rhetorical and textual phenomenon.

National higher education large-scale assessment: Colombian public policy since 2010 as part of quality education assurance.

Professional genres: Multimodal genres utilized as ways of doing and thinking through language within professions.

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Appendix. Case Studies by Field

Case	Cases Study Name	Field	Interview Date	Informed Consent Received	Materials Receipt Date*
1	Protocol and guidelines for edition and correction of legal documents	Communication – journalism	28/02/2019	Not apply	Not apply
2	Crowdfunding strategy design: Redesigning a website.	Communication – journalism	25/10/2018	Not apply	Not apply
3	Online radio station - Timeless Writing for Radio	Communication – journalism	21/11/2018	11/2018	21/11/2018
4	Change Management for Digital and Cultural Transformation	Communication – journalism	19/10/2018 8:30am	21/11/2018	18/11/2018
5	Research on communication values in the Spain banking sector	Advertising	2/10/2018	2/10/2018	08/11/2018
6	ICT culture project in a university	Advertising	23/08/2018	03/08/2018	21/08/2018
7	Virtual Program _ Analysis and Software Development	Graphic Design	26/10/2018 10am	26/10/2018	14/11/2018 and 22/11/2018
8	Educational manuals – Pedagogy	Speech Therapy	27/02/2019	2/2019	06/11/2018
9	Management and occupational health manual for a company	Speech Therapy	28/02/2019	Not apply	Not apply
10	Research project on music therapy	Speech Therapy	24/02/2019	27/02/2019	27/02/2019
11	Writing booklets on process facilitation tools	Speech Therapy	27/02/2019	26/03/2019	25/02/2019
12	Biodiversity analysis in a Colombian region and community work	Ecology	28/09/2018	28/09/19	28/03/19
13	Educational materials for a Colombian region (Chocó)	Ecology	17/12/18	17/12/18	11/02/19
14	Teacher mentor of the national teaching development program “Todos a aprender” of the National Ministry of Colombia	Teacher Education	10/09/19	10/09/19	10/10/19

Source. Own elaboration based on authors’ analysis

* Associated with the challenging project/emails, digital files and/or WhatsApp threads