



Profile: Issues in Teachers' Professional Development

ISSN: 1657-0790

ISSN: 2256-5760

Departamento de Lenguas Extranjeras, Universidad Nacional de Colombia.

Nausa, Ricardo; Živković, Jovana; Sichko, Liubava
Needs Analysis and Design of a Master's Level Academic Reading Course in English
Profile: Issues in Teachers' Professional Development,
vol. 26, no. 2, 2024, July-December, pp. 89-106
Departamento de Lenguas Extranjeras, Universidad Nacional de Colombia.

DOI: <https://doi.org/10.15446/profile.v26n2.110905>

Available in: <https://www.redalyc.org/articulo.oa?id=169278614007>

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Needs Analysis and Design of a Master's Level Academic Reading Course in English

Análisis de necesidades para el diseño de un curso de lectura académica en inglés para estudiantes de maestría

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This article reports an English language needs analysis of Colombian Social Science master's students. Information from faculty interviews, course syllabi, and student surveys shows that students need English to access and update their disciplinary knowledge through research articles and book chapters to successfully participate in class activities in Spanish, for which low English proficiency and lack of graduate reading skills can be an obstacle. These findings inspired the creation of *Reading Research Articles in the Social Sciences* course and confirmed the importance of source variety, triangulation, and addressing needs when identified. Methodological and practical contributions are discussed, emphasizing syllabi as key information sources not considered in other needs analyses.

Keywords: academic reading, English for academic purposes, master's students, needs analysis, social sciences, tertiary education

Este artículo analiza las necesidades de uso del inglés en estudiantes colombianos de maestrías en Ciencias Sociales, utilizando entrevistas a profesores, programas de curso y encuestas a estudiantes. El estudio revela que los estudiantes, pese a su bajo dominio y escasas habilidades de lectura en inglés, necesitan este idioma para acceder y actualizar conocimientos disciplinarios, a fin de facilitar su participación en clases dictadas en español. Los hallazgos motivaron el curso *Reading Research Articles in the Social Sciences*, destacando la importancia de diversas fuentes y la triangulación para identificar necesidades. Se examinan las contribuciones metodológicas y prácticas, con énfasis en el valor de los programas de curso como información clave, a menudo ignorada en otros estudios.

Palabras clave: análisis de necesidades, ciencias sociales, educación terciaria, estudiantes de maestría, inglés con fines académicos, lectura académica

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Declaration of generative AI and AI-assisted technologies in the writing process: During the revision of this work, the authors used ChatGPT to reduce the word count to comply with the *Profile* journal guidelines. Following this, the authors reviewed and edited the content as necessary, taking full responsibility for the final publication.

How to cite this article (APA, 7th ed.): Nausa, R., Živković, J., & Sichko, L. (2024). Needs analysis and design of a master's level academic reading course in English. *Profile: Issues in Teachers' Professional Development*, 26(2), 89–106. <https://doi.org/10.15446/profile.v26n2.110905>

This article was received on September 1, 2023 and accepted on April 11, 2024.

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Introduction

English serves as the global language for science, research, and academia, with journals, conferences, and institutions adopting it as the standard for publication and worldwide collaboration (Hyland, 2006). Its dominating role in the scientific arena has made it necessary for (aspiring) scholars to learn academic English within their disciplines as “specialized discourse for reading and writing” (Hyland, 2006, p. 38). In graduate education, for example, English reading proficiency is crucial to help students update their knowledge of disciplinary developments (Hirvela, 2012) or conduct research, which requires advanced skills and competence development, not necessarily the same as those for general purpose or undergraduate study reading (Ono, 2007). Non-English-speaking universities address these challenges by offering English for academic purposes (EAP) courses or establishing English language centers to support faculty, graduate students, and researchers (Janssen et al., 2012; LaClare & Franz, 2013).

In this context, a Colombian private university opted to make academic reading English courses optional for master’s programs. Some program coordinators believed these courses contributed to a rising rate of dropout figures, as students perceived English courses as challenging, irrelevant, or obstructive. Unfinished degrees, in turn, became an obstacle for the accreditation processes of master’s programs, which assess the inclusion of English. This negative perception motivated us to dig deeper. Instead of revising existing courses,¹ our approach was to directly understand students’ academic reading needs. Initial insights suggested that master’s students probably needed skills for tasks requiring production,² and their reading needs were related to graduate study

tasks and genres, not general ones. To identify those needs and validate our intuitions, we initiated a needs analysis for the 11 master’s programs of the School of Social Sciences at the university. The questions guiding this analysis are:

1. What are the current English language needs of the School of Social Sciences master’s students? Do these needs focus on all skills or only reading?
2. What kind of course would cater to this student population’s English language needs?

Literature Review

This section explores concepts related to needs analyses in English for specific/academic purposes (ESP/EAP) and English as a second/foreign language (L2/EFL) reading to situate the needs analysis. Additionally, it provides an overview of needs analyses conducted in university L2/EFL contexts where EAP reading is required.

Needs Analysis in ESP/EAP Contexts

Needs analysis refers to techniques to systematically collect and analyze information required for curricula creation and validation (Brown, 2016). In ESP/EAP, well-conducted needs analyses ensure that students learn what they need (Serafini et al., 2015) for success in their disciplines, professions, or workplaces (Basturkmen, 2015). The term “needs” takes different meanings: (a) what most stakeholders deem as wanted, desired, expected, or necessary; (b) lacks and gaps between what students should be able to do and what they can do; (c) the next language acquisition step; or (d) aspects that, if missing, would hinder learning (Brown, 2016). These meanings suggest several analysis strategies: *target situation* (what students should be able to do at the end of instruction), *present situation* (what students can do prior to instruction), and *gap* (the contrast between what students can and should be able to do). Other analyses comprise individual preferences, teaching-learning experiences, resource availability, and power

¹ Reasons beyond the scope of this article prevented us from evaluating them.

² From the beginning, it was emphasized that barring exceptions, students are required to use English solely for reading. However, in data collection, we included questions on the other skills to support our reading focus.

dynamics when language use creates conflicts. Brown (2016) suggests that successful needs analyses should include a combination of strategies appropriate for the specific ESP/EAP context.

Needs analysis strategies hinge on relevant data gathered via suitable techniques (Basturkmen, 2015). Methods are split into inductive and deductive, spanning non-expert and expert intuitions, interviews (structured and unstructured), focus groups, surveys, language tests, class observations (participant/non-participant), and diaries and logs (Berwick, 1989, as cited in Long, 2005). These data are analyzed using quantitative and qualitative approaches like statistical, corpus, content, and discourse analyses. Needs analyses benefit from multiple sources to validate data interpretations through comparison (Long, 2005). Brown (2016) delineates nine triangulation validation approaches: stakeholder, method, location, time, perspective, research, theory, interdisciplinary, and participant role. Analysts must decide on the data type and validation techniques, considering needs analysis constraints (Flowerdew, 2012).

This needs analysis considers professors' and students' views, target-situation and gap analysis strategies, and the use of several information sources, analysis types, and triangulation.

ESP/EAP Reading in L2/ EFL Graduate Contexts

Reading is the perception of written texts to understand their contents (Richards & Schmidt, 2013). Comprehension can be literal, inferred, critical, or appreciative, but not the unique goal. Fluent reading comprehension in L1 and L2 results from lower and higher-level processes (Grabe & Stoller, 2013). While lower-level processing relates to automatic linguistic skills (lexical access, syntactic parsing, and proposition formation), higher-level processing is less automatic and relies on readers' previous knowledge and inferencing skills.

L2 reading research has been highly influenced by L1 research findings (Eskey, 2005). These include understanding reading not merely as the passive complement to writing (Wardhaugh, 1977), evident in psycholinguistic approaches like the guessing game (Goodman, 1967), bottom-up and top-down models (Rumelhart, 1977; Stanovich, 1980), and schema theory (Rumelhart, 1980). Rumelhart (1977) asserts that successful reading results from bottom-up and top-down processing interaction. This active-skill perspective extends to sociocultural practices (Eskey, 2005) in concepts like literacies and critical literacies (Gee, 2000) and reading as political behavior (Shannon, 1996), and to neurobiological aspects like reading and dyslexia or reading with new technologies.

L2 reading is explored from cognitive, sociocultural, and individual behavior perspectives. Cognitive-perspective studies investigate the relationship between reading and language proficiency, highlighting that L1 skills may not necessarily transfer to L2 (Cummins, 1984). Vocabulary knowledge impacts reading by influencing the ratio of unknown/known words for text comprehension (Fry, 1981), automatic word recognition (Stanovich, 1991), and the efficacy of strategies like guessing from context (Bensoussan & Laufer, 1984). Reading-grammar relationships are often examined within vocabulary studies (Eskey, 2005). Additional cognitive aspects include reading rate (fluency) and the importance of background knowledge. Sociocultural perspectives view reading as literacy for enculturation or acculturation (Eskey, 2005) in aspects like L1/L2 phonology and morphology differences (Koda, 1989), background knowledge role, and critical literacy (Gee, 2000). Individual variation studies analyze behaviors contributing to reader success through case studies (Cho & Krashen, 1994) or protocol analyses (Bernhardt, 1993), examining aspects like the effects of extensive reading programs (Robb & Susser, 1989).

ESP reading studies in L2/EFL contexts align with sociocultural practice perspectives. Reading helps

students acquire target community discourse practices (Hirvela, 2012), shaping key concepts, methods of persuasion, knowledge construction practices, and interpretation practices within disciplines (Hyland, 2006). Initially focused on sentence-level analysis, ESP studies shifted towards discourse-level/rhetorical analyses, creating interest in reading instruction. This approach positioned reading as a situated activity emphasizing the linguistic and rhetorical analysis of occupational and disciplinary text selection. ESP reading research can be classified into two main strands (Bruce, 2011, as cited in Hirvela, 2012). The stand-alone strand explores skills and strategies, genres, and specialized vocabulary. The integrated skills strand studies the importance of genres and portfolios or other tools to explore them.

Also rooted in the notion of academic English study as a means of disciplinary socialization, genre-based approaches to reading claim that genre knowledge (names, purposes, structural characteristics, contents, contexts, etc.) aids reading comprehension (Johns, 1997). Swales's (1990) seminal research contributed to understanding academic texts as socially situated practices across disciplines. While genre-based efforts often focus on writing instruction (e.g., Swales & Feak, 2009, 2011, 2012), some initiatives address receptive skills (reading and listening). For instance, Hyon's (2002) analysis of the effects of teaching four academic genres to non-native English graduate students reports reading improvements through heightened genre awareness.

Another way of understanding reading as disciplinary socialization is the concept of *academic literacies*: reading and writing in academic contexts conceived as “ideologically shaped, reflecting institutional structures, and relations of power” (Lillis & Tuck, 2016, p. 30). This view goes beyond genre-based approaches in its conception of language use as changing and susceptible to being contested, a response to deficit discourses, focusing on non-native or novice scholars' inability to read or write (Lillis & Turner, 2001).

Needs Analyses in Reading for Academic Purposes

This section centers on ESL/EFL university-level needs analyses. To align with our emphasis on reading for academic purposes, we excluded reports on other skills or within English for occupational or professional purpose contexts.

Undergraduate-level studies emphasize stakeholders' perceptions of reading's importance, difficulty, desirability of inclusion, or students' proficiency. Reading is regarded as crucial in fields like medicine (Seiradakis, 2019) or architecture (Aliakbari & Boghayeri, 2014). However, faculty opinions differ, with many considering disciplinary reading as more important (Bacha & Bahous, 2008) or problematic (Boakye & Mai, 2016) than undergraduate students do. Compared with other skills, students consistently rate reading as the least important, difficult, or necessary (Alsamadani, 2017) or even their strongest skill (Seiradakis, 2019), a common perception in all-skills needs analyses.

Reading-only needs analyses show another picture. Reading is challenging for first-year students since school fails to prepare them for higher education (Hyland, 2022; Seiradakis, 2019). Difficulties comprise reading amount and length (Karakoç et al., 2022); reading speed (Chia et al., 1999); insufficient skills and strategies to read critically, build intertextuality models, or reconstruct information (Liu & Read, 2020); discrepancies between the genres students must read (e.g., textbooks) and write (e.g., lab reports; Jackson et al., 2006); among others.

These difficulties are associated with university genres and tasks. Genres encompass textbooks, academic book chapters, and journal articles (Karakoç et al., 2022); manuals and periodic reports (Kaewpet, 2009); instructors' reading handouts (Alsamadani, 2017); and advertisements, instructions, brochures, tables, graphic charts, lists, and tables (Habbash & Albakrawi, 2014). Textbook chapters are the most common undergraduate genre, but disciplines might have their discipline-specific

genres, like written case reports in medicine (Lodhi et al., 2018) or, more frequently, graphic charts in engineering (Habbash & Albakrawi, 2014). While general comprehension is typically expected, more cognitively demanding tasks—such as comparing authors' views or taking a critical stance—may be required (Liu & Read, 2020).

Graduate-level needs analyses are scarce and resemble undergraduate ones in academic reading, readers, and reading instruction (Porter, 2018). Nevertheless, differences arise in reading loads, genres, and tasks (Ono, 2007). Graduate needs analyses show reading as less problematic, with students feeling competent and their primary concerns revolving around publication (Zaidoune & Chroqui, 2020). Reports on master's students' needs usually explore perceptions like importance, difficulties, strategies, genres, among others (Dehnad et al., 2010; Gray, 2011; Singh, 2014). More specific studies analyze the vocabulary needed for specialized texts (Peters & Fernández, 2013) or journal articles reading difficulties and strategies (Chen, 2017).

However necessary needs analyses may be, some have been criticized. One concern is that although needs are identified, they are not addressed or informed by current research (Chan, 2018); few studies detail outcomes like curricular frameworks to design ESP reading courses (Spector-Cohen et al., 2001), redesign of ESP programs (Caplan & Stevens, 2017), or teaching materials to meet government standards (Salam, 2017). Another criticism involves lacking diverse sources and triangulation (Serafini et al., 2015). Few studies incorporate instruments, informants, and triangulation methods (Alsamadani, 2017; Salam, 2017; Spence & Liu, 2013). Lastly, criticism may refer to power struggles, not necessarily involving multiple stakeholders but empowering students as analysts of their needs (Holme & Chaluaisaeng, 2006) as practitioner-researchers (Banister, 2021).

This needs analysis seeks to remedy these deficiencies by including information triangulated from different

instruments and stakeholders' voices and address needs by creating a research article reading course.

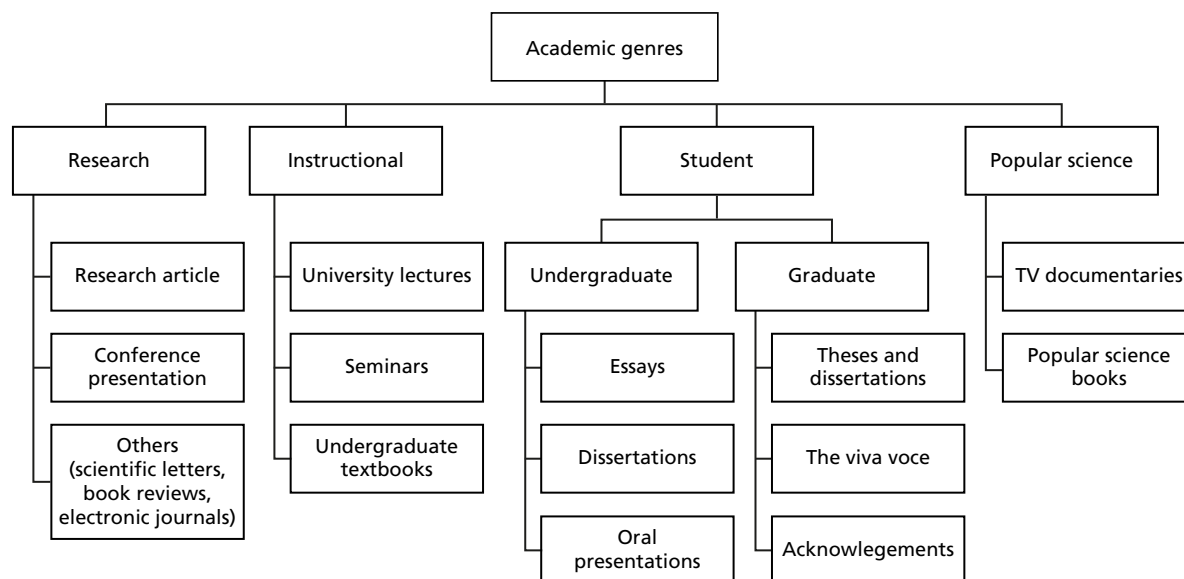
Method

To identify the student population's English language needs, we conducted semi-structured interviews with subject-matter professors, analyzed course syllabi, and conducted student surveys. The methods—encompassing participants, instruments, information collected, and triangulation—are outlined below.

This project was presented to the School of Social Sciences; professors from the Anthropology, Sociology, and Clinical Psychology programs volunteered, while professors from the other eight programs did not, impacting the generalizability of our findings. Nevertheless, we gathered data from students across all 11 programs. Interviews with professors were conducted using Microsoft Teams, where we asked present, gap, and target situation questions regarding student tasks and genres. Interviewees provided consent for transcription and analysis. Two analyses were employed: thematic analysis (King, 2004) with Atlas.ti (2020) to identify genre and task-related themes and discourse analysis through close reading (Martin, 2000) to qualify these themes.

Clinical Psychology and Sociology professors shared six general course syllabi to validate interview findings. Two analyses were conducted: discourse analysis through close reading to identify new, confirmatory, or elaborative information and genre quantitative analysis to identify text types and frequency using Hyland's (2009) academic genres taxonomy (see Figure 1), which classifies genres by producer (researchers, students) and purpose (teaching, dissemination). Reading lists in the syllabi facilitated this analysis. Genres were identified from titles and style citations; unclear cases involved downloading and reading texts for classification.

Finally, a survey (based on Huh, 2006), including a consent form, was sent to nearly 100 students (Table 1). Twenty-nine students completed the survey.

Figure 1. Academic Genres Taxonomy (Hyland, 2009)**Table 1.** Needs Analysis Survey

Survey structure	Master's programs of the respondents
Module 1: Identification	Anthropology, Political Science, Peacebuilding, Cultural Studies, International Studies, Philosophy, Geography, History, Psychology, Clinical and Health Psychology, Sociology
Module 2: Experiences and previous knowledge	
Module 3: Perceptions	
Module 4: Use of English during master's studies	
Module 5: Use of English in professional settings	

After completing the interviews and syllabi analysis, we used the survey primarily for triangulation. It became evident that students mainly required reading skills, so we focused solely on Module 4, where students rated academic task and genre importance and frequency on a 5-point Likert scale. Given the small sample, we abstained from inferential statistical tests and used percentage calculations instead. Items rated highly frequent and important were considered actual needs for course design, while important but infrequent aspects were discarded, especially if unverified by faculty interviews and syllabi contents.

Results

English Language Reading Needs of Students

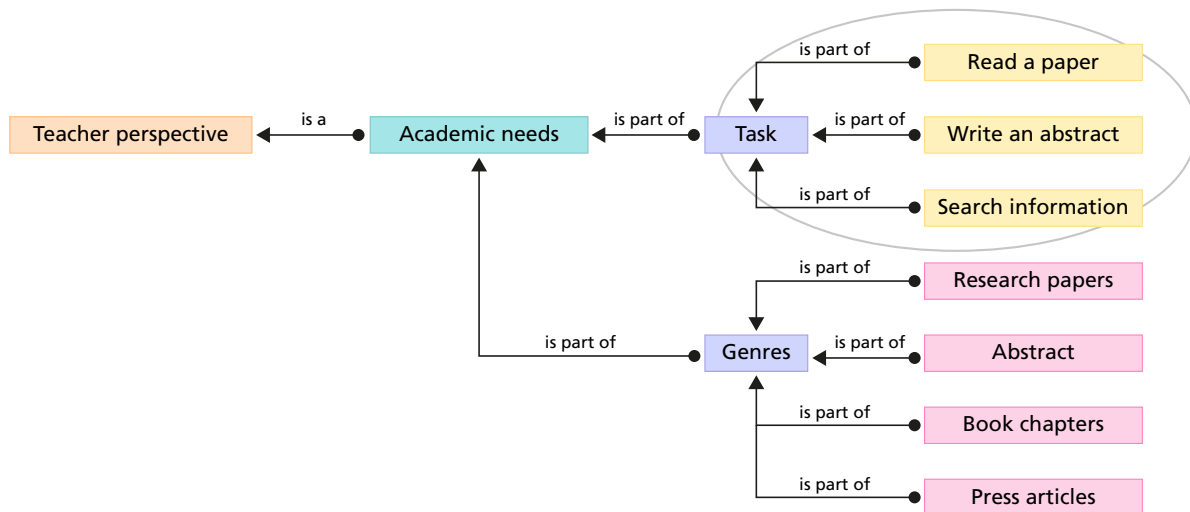
Analyses confirm that students require English to update their disciplinary knowledge and subsequently do tasks (e.g., write essays) or participate in academic activities (e.g., article discussion) in Spanish. Access to knowledge predominantly comes through academic genres, with research articles being the most recurrent. To address Research Question 1, we first share insights from faculty interviews and course syllabi on

the importance of reading to access disciplinary knowledge, further enriched by student survey responses and comments. Second, we examine the academic genres in two master's programs from the six-syllabi corpus, departing from the distribution of English-Spanish required readings to later center on the distribution of English readings per genre.

Academic Reading to Access Current Disciplinary Knowledge

Initially, thematic analyses of faculty interviews show three tasks that professors think their students need to do in English during their master's studies: reading papers, writing abstracts, and searching for information (see Figure 2).

Figure 2. Thematic Analysis of Faculty Interviews Using Atlas.ti (2020)



However, in the interviews, professors contend that, in such short programs, English classes should focus on reading comprehension:

Excerpt 1³

I would focus on reading and maybe writing an abstract. But no, to be realistic, I do believe that, in such a short master's, what they should have is reading and comprehension skills. (Sociology professor)

This professor also highlights the importance of reading as a socially situated disciplinary practice (Swales, 1990) that demands reading a lot and necessitates advanced reading strategies for high-complexity

tasks, putting students with low English proficiency or reading skills at a disadvantage:

Excerpt 2

Reading, but a lot; that is, if you want to do a project about gentrification, well, you must read certain things. You must look for info in English, which is not just reading; it's like searching, scanning, surveying the literature, and then reading in depth, and they are highly complex tasks that students who do not have a background in English find very difficult. (Sociology professor)

Another concern mentioned in the interviews is the tension between Spanish and English readings, evidenced by the predominance of English texts, which students in disciplines like anthropology perceive as a form of colonial imposition:

³ Interviews were conducted and transcribed in Spanish. Translations are provided for the article.

Excerpt 3

We're trying to incorporate more *regional readings* because anthropology is always like a matter of *decolonization of education*, but at the same time, *many canonical texts... even if written by Latin Americans, are often published in English*. So, I would say 60, 70% of the texts. Many times, students complain that there are *too many readings in English*. (Anthropology professor)

As this professor explains, despite resistance to English reading, there is consensus that crucial readings, including local ones, are often published in English. Their reading percentages estimations prompted us to explore genre and language distribution in the course syllabi.

Although other skills were mentioned in the interviews (Figure 2), professors admit that reading is more important and frequent than other tasks:

Excerpt 4

A supervisor could say, "Well, write to the expert scholar that you chose to see what they say." Then, they could *use that strategy of contacting authors to look for material or request permits* or things like that, but it is not so usual. (Clinical psychology professor)

The importance of reading is confirmed and further detailed in the general course syllabi sections (Figure 3) concerning course expectations, evaluation, connection to other tasks, and guiding students.

Figure 3. Structure of Syllabi at the University

General information:
Course description:
Learning objectives:
Methodology:
Evaluation:
Course structure: (a week-by-week description of themes, readings, and class preparation)
Miscellaneous: (this section varies and might include reading guidelines.)
Bibliography or references:

In the Course Description and Learning Objectives sections, reading critically is presented as identifying disciplinary questions (Excerpt 5) or assessing evidence in databases and literature (Excerpt 6).

Excerpt 5

The course promotes *the critical reading of sociological texts* in search of the *sociological questions* that were asked and those that weren't. (Sample from Sociology syllabus)

Excerpt 6

To identify and critically evaluate the sources of evidence available in databases and the *scientific literature*. (Sample from Clinical Psychology syllabus)

Methodology sections in all syllabi include class preparation and in-class activities requiring reading: discussions, presentations, problem-solving, group work within projects, and so on:

Excerpt 7

In addition, we will do *work in small groups* (*analyzing articles*, fragments of documentaries, or films related to urban issues). (Sample from The Unequal City syllabus)

Methodology sections in the syllabi also mention instructors' (Excerpt 8) and students' (Excerpt 10) roles/levels of responsibility.

Excerpt 8

The instructor will be the session facilitator, presenting the topic and the main concepts addressed in the readings. (Sample from Clinical Psychology syllabus)

Reading critically is not only mentioned in the Evaluation sections of the syllabi but is also part of what is evaluated in class. This is apparent in references to reading comprehension quizzes (Excerpt 9) or advanced tasks like completing and orally presenting reading files (Excerpt 10).

Excerpt 9

Each class will have *a short quiz on the required readings*. (Sample from Clinical Psychology syllabus)

Excerpt 10

Files: 10% each (two per semester)

For each class, there will be *exemplary research texts* that students will have to *dissect critically* to understand the methodological options of the authors. There will be a *file* that students will have to *complete* for each class. At random, each week, *we will choose two or three students to present the file* as the basis for group discussion. (Sample from Sociology syllabus)

References to reading evaluation suggest its high-stakes nature. Although classes are not EFL/EAP, they do evaluate English reading comprehension. In fact, they probably assess access and understanding of current disciplinary knowledge, which professors (given their answers and the course syllabi) expect to be done through English texts, mostly research articles and book chapters. Furthermore, despite other English skills being unnecessary and unassessed, there is a clear case of diglossia as domain loss (Ljosland, 2007) for Spanish in its role in accessing disciplinary knowledge. In general, the number of English readings (Figure 4) and the absence of Spanish translations put students with basic English or reading competence at a disadvantage—not due to their disciplinary aptitudes but in how knowledge is accessed.

The section where reading centrality is more overt is Course Structure. Alongside a week-by-week list of themes, activities, and materials, instructors provide recommendations on handling challenging or lengthy readings:

Excerpt 11

Week 1: Emotion and Anxiety

Required reading:

Chapter 2 of Barlow, D. H. (2002). *Anxiety and its disorders* (2nd ed., pp. 37–63). Guilford.

Note: *This reading is long, so focus on the key points of the following sections: emotion as behavior, James-Lang theory, Eysenck's neuroticism, appraisal theory, Spielberger's state-trait, Beck cognitive schemata, Tellegen's circumplex, and dimensions of anxiety and depression.* (Sample from Clinical Psychology I syllabus)

The References section repeats assigned readings and includes optional ones, most in English. The final section (Miscellaneous) contains aspects related to critical disciplinary reading. Three syllabi feature instruments to guide students: *research article files* (Sociology syllabus), *sociological thought guide* (Sociology syllabus), and *research article matrix* (Clinical Psychology syllabus). Their inclusion confirms instructors' concerns regarding potential English reading difficulties.

Finally, the students' answers to the survey further confirm the importance of English academic reading. Module 4 includes questions about the importance and frequency of tasks and genres by skill. Percentages were calculated from ratings (1 = *not important/frequent* to 5 = *highly important/frequent*). For the sake of comparison and to justify the exclusion of other skills, Table 2 shows ratings for speaking.

Table 2. Average of Perceived Importance and Frequency of Academic Spoken Tasks in English ($N = 29$)

Speaking	I consider this skill important	I frequently use this skill to:
Participate in an academic conversation	84%	8%
Give a talk on a topic of my expertise	84%	4%
Present project proposals	80%	4%
Ask and answer questions in class	69%	13%
Participate in meetings or conferences	84%	4%

As evident, speaking is rated as important, albeit infrequent. This trend is also observed in writing and

listening. In contrast, reading tasks receive high ratings both in importance and frequency (see Table 3).

Table 3. Average of Perceived Importance and Frequency of Academic Reading Tasks in English ($N = 29$)

Reading	I consider this skill important	I frequently use this skill to:
Read books and book chapters to obtain information on theory and methodology	87%	85%
Read and understand research articles to identify the research question, methods, results, and implications	87%	77%
Read and analyze opinion articles in news outlets (<i>Washington Post</i> , <i>The Economist</i> , etc.)	73%	54%
Read databases, websites, and blogs to find specific information	73%	54%

Table 3 iterates the findings in professors' interviews and syllabi analysis: reading mainly focuses on research articles and book chapters (importance: 87%/frequency: 85%) to identify disciplinary aspects (importance: 87%/frequency: 77%).

Students confirm that English reading is a "heavy load" necessary for updating disciplinary knowledge, taken for granted by professors and evaluated (Excerpts 12, 13).

Excerpt 12

All texts are in English (in a week, they can add up to more than 200 pages for one class). All the epistemology of clinical and health psychology is presented there. Knowing these bases is important; *professors take for granted that you read and understand everything*. All classes have a *reading monitoring quiz*. (Sample from Clinical Psychology I syllabus)

Excerpt 13 iterates the students' awareness of the need for high cognitive skills for reading and the Spanish domain loss mentioned above; clearly, students' answers and perceptions match the findings based on professors and syllabi presented before.

Excerpt 13

In Analysis of Global Problems, 80% of the material is in English, and we write *argumentative essays* [in Spanish] in which we must present the authors' stance and make comparative analyses; therefore, *it is essential to understand the readings in depth*, not just the main ideas. (Sociology student)

All sources provide evidence that students need to read extensively and in-depth to participate in class successfully; this can be impeded if students lack the required English level and reading strategies.

Academic Genres That Students Must Read

The second aspect of Research Question 1 is the master's programs' typical genres, which center on (a) the distribution of required English-Spanish readings and (b) English reading genre classification. This is based on a 342-text corpus built from the bibliographies in the provided syllabi (Table 4).

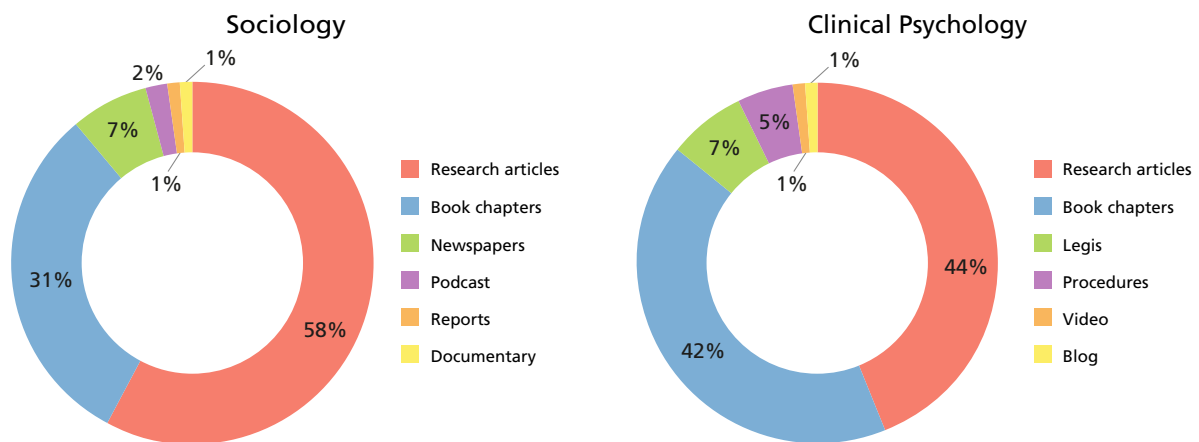
Table 4. Corpus of Texts Reported in Six Course Syllabi

	Sociology	Clinical Psychology
Number of texts in each syllabus	The unequal city (62)	Clinical Psychology I (109)
	Sociological questions (31)	Clinical Psychology II (54)
	Pro-seminar of sociological methods (49)	Clinical Psychology III (37)
Totals	142	200

Figure 4 shows that English is the predominant language in both programs when it comes to required texts in the master's courses in Sociology (English: 79%, Spanish: 21%) and Clinical Psychology (English: 89%, Spanish: 11%). As pointed out (Excerpt 3), even key texts by local authors are in English.

Genre classification (Figure 4) reveals research articles and book chapters as the most frequent English

academic genres in the assigned readings.⁴ Hyland's (2009) academic genres taxonomy (Figure 1) introduces three categories: *research* (research articles), *instructional* (book chapters), and *popular science* (newspaper articles, podcasts, documentaries, videos, blogs). Although legislative reports and procedures are not considered academic genres, we incorporated them into the analysis, given their inclusion in the assigned readings.

Figure 4. Genre Distribution per Program

As seen, research articles and book chapters are highly frequent in Sociology (58% and 31%) and Clinical Psychology (44% and 42%), confirming the programs' goal of helping students update disciplinary knowledge. Both genres share characteristics suitable for this purpose: emphasis on novelty and relevance of knowledge, extensive review and revision processes, and conformity

to disciplinary knowledge production and expression practices (Hyland, 2009).

Including popular science genres, albeit minimally, may stem from professors' intent to show the relevance and application of discussed themes or assist students with lower English reading competence. Excerpt 14 illustrates a case where a Spanish documentary is intended to complement an English reading.

⁴ Mention is made to podcasts, documentaries, and videos; they are used to aid comprehension in general.

Excerpt 14

Week 9

Topic: Sociological questions about mobilization

Required reading:

Viterna, J. (2006). Pulled, pushed, and persuaded: Explaining women's mobilization into the Salvadoran guerrilla army. *American Journal of Sociology*, 112(1), 1–45.

Documentary:

La lucha armada de las mujeres de las FARC (<https://www.youtube.com/watch?v=SWIXaGEBJu4>)

Report: <https://www.elespectador.com/noticias/cultura/mujeres-de-farc-relato-intimidacion-articulo-667385>

(Sample from Sociological Questions syllabus)

Identifying this student population's academic genre reading needs hints at the answer to Research Question 2.

A Genre-Based Reading Course for Social Science Master's Students

The findings indicate a need for courses that help students critically read research articles and book chapters in English and prepare for tasks in the courses in which the texts are assigned. For practicality, we opted to start with designing one of two courses: *Reading Research Articles in the Social Sciences*, targeting students in the ten master's programs. The course is inspired by research on academic genres (Swales, 1990), related pedagogical material (e.g., Swales & Feak, 2009, 2012), and Shon's (2015) system of research article annotation. Although these materials are primarily used for writing instruction,

genre awareness exercises seem fitting for academic reading and align well with the programs' expectations.

The course's genre-based methodology considers several approaches:

- Move-based lexico-grammatical analysis (Swales, 1990; Swales & Feak, 2012): vocabulary and language functions typical of research article sections and moves
- Reading strategies (Farrell, 2001): general reading strategies (inferring vocabulary) and more complex ones (gap identification in literature reviews)
- Task-based learning (Willis, 1996): authentic tasks resembling the ones in master's courses (identifying/inferring research questions, comparing authors' views, etc.)
- Student-centeredness (Weimer, 2013): relevant genres/language and tasks with the instructor as a facilitator
- Computer-assisted language learning (Levy, 1997): computers, a learning management system (Brightspace), relevant online tools (e.g., Grammarly), and software (e.g., Mendeley) to enhance course activities
- Corpus-based data-driven learning (Crosthwaite, 2019): using research article corpora and corpus tools (e.g., Versa Text, AntConc, and Coca) to identify language use patterns typical of the different sections of research articles

The three units of this 32-session course (each lasting 1.5 hours) are structured around content, language, and strategies. For illustration purposes, we present the plan for Unit 1/Week 4 in Table 5.

Table 5. Content and Activities for Week 4

Content	Language	Strategies
Class 1: Introduction (context and rationale)	• Signposting: guiding the reader	• Establishing reading code patterns for introductions
Class 2: Introduction (research questions and aims)	• Noun phrases for expressing information concisely	• Summary of previous literature, critique of previous literature, gap, rationale, what they do in the research
Asynchronous work, Quiz 2 (intro analysis) ^a	• Words and phrases describing and summarizing aims • Words emphasizing importance and currency • Present perfect tense and recency expressions	• Using codes to anticipate the next item in the article

^a In this quiz, students are required to use the codes to mark different moves in introductions.

The course was delivered in the first semester of 2021 to 15 volunteer students to adjust its contents and activities, not to test its effectiveness. The student learning outcomes of the course are as follows:

- understand research articles assigned as readings in master's courses;
- identify key components of research article sections at three levels: structural, functional, and lexico-grammatical;
- discuss the results of research article analyses;
- learn new discipline-related vocabulary with a focus on word form, meaning, and use; and
- synthesize the main points of the readings in English or Spanish according to specific needs.

To attain these objectives, students learned strategies for reading articles using Shon's (2015) coding system and Swales and Feak's (2012) genre exploration tasks. Some of the strategies include:

- Scanning (title, subtitles, abstract) to determine whether research articles should be read entirely or not
- Inferring/identifying embedded research questions through the language used to introduce them as noun clauses
- Understanding authors' stance or strength of claims by identifying hedges or boosters

The selection of content, objectives, and strategies was informed by the findings of Research Question 1, especially those related to the need to learn how to read research articles with the goals of the discipline in mind (see Excerpts 3, 5, and 6). Another valuable source of information was the questions in the reading guides in three syllabi:

Excerpt 15

1. What is the question posed or implicit in the assigned text? Do you think it is a sociological question? Why or why not?

2. Can you identify the difference between a normative and an empirical statement? Give examples of each. (Sample from Sociology syllabus)

After concluding the course, we administered a survey about the level of satisfaction, providing spaces for comments explaining the ratings. In terms of its usefulness, scores indicated that students were either satisfied (71.4%) or highly satisfied (28.5%). Students' comments confirm these ratings by describing the course as specifically tailored to their needs:

Excerpt 16

As graduate students, *reading strategies*, especially the *analysis of articles*, are key to a better appropriation of texts. Normally, teachers expect you to get to class or make progress in research from the texts you read. *This course was created with students in mind.* (Comment from Student Survey)

The course's positive impact is also reflected in comments on its clarity, methodology, emphasis on strategies for approaching research articles, and tools for class interaction (Excerpts 17–19).

Excerpt 17

There are several positive aspects: the class structure was very clear (both for each session and the cycle in general). *The reading steps taught were clear, concrete, and relevant.* The timing of the activities was as expected. (Comment from Student Survey)

Excerpt 18

I liked *the strategies for taking notes* to better analyze results and *the reading codes*. (Comment from Student Survey)

Excerpt 19

The teachers use *very useful tools* to enrich their presentations and the group's participation. *Group work* is a good way to promote learning. (Comment from Student Survey)

Finally, students also mentioned areas for improvement, the most recurrent of which was the difficulties dealing with the amount of information presented throughout the course.

Excerpt 20

I would like us to design a matrix to summarize all modules. There's *much information; putting it together would be helpful*. (Comment from Student Survey)

All in all, the students' positive comments and suggestions made us believe that the needs analysis, course design, and pilot were going in the right direction.

Discussion and Conclusion

This needs analysis proposes the course *Reading Research Articles in the Social Sciences* based on the following findings: Master's programs students need to update their knowledge in disciplinary fields through reading academic genres produced in their disciplines. This knowledge, presented chiefly in research articles and textbooks, is necessary to participate in key activities conducted in Spanish. Moreover, students must engage in in-depth readings using general and cognitive complex strategies, which professors acknowledge students probably lack. To address this, professors create reading instruments or provide alternative genres to facilitate comprehension.

These findings have methodological and practical implications. The study validates the need for needs analyses to rely on multiple sources of information (triangulation; Brown, 2016; Serafini et al., 2015) and not only highlight needs but also propose ways to address them (Chan, 2018). In the literature review, it is evident that many needs analyses only use student surveys. In this study, incorporating different stakeholders' perspectives through diverse sources was vital in understanding the importance, quantity, and types of English readings, their connection to other tasks, and the course design and piloting outcomes. Faculty

insights also motivated the inclusion of master's course syllabi in the analysis, albeit limited to two programs.

Syllabi analysis, an unreported strategy in other studies, emerged as a rich and robust information source. It validated other findings and provided quantitative insights into genre types, language distribution, and crucial elements for course design, like the reading guides crafted by professors. We conclude that any tertiary-level EAP program should embrace syllabi analysis as a foundational principle.

This needs analysis is not without limitations. One is the exclusion of some master's programs, which impedes generalizations at local and global levels through inferential statistical analyses. Another limitation is the undefined Common European Framework of Reference level required for taking the course. Intuition suggests B1-level suitability; however, lower-level students could compensate with language tools like translators or AI (e.g., ChatGPT). In general, the findings cannot be said to be conclusive; they are just indicative. Future research should aim to include all programs, analyze larger syllabi corpora with corpus or natural language processing methods, select a representative sample of master's program stakeholders, and test course effectiveness. Notwithstanding these limitations, the objectives of this needs analysis have been successfully achieved, and a course has been designed and implemented, which the volunteer participants found highly satisfactory.

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