Conceptions of reading and writing in a graduate degree program in Architecture: an approach from the perspective of Academic Literacy

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Abstract
This article presents preliminary results of a study that seeks to contribute to the discussion on teaching and learning practices in graduate school, focusing specifically on reading and writing. For this purpose, a sociocultural approach which coincides with the Academic Literacies perspective has been assumed. As a general objective, this research paper aims to describe the reading and writing conceptions of teachers, students, and the curriculum of a graduate program in the discipline of Architecture. It is a qualitative, descriptive and transversal study, conducted in a public university in the state of Veracruz, Mexico, and is divided into two methodological stages. The first stage, in which a self-administered questionnaire with open-ended questions was applied, has been completed. The results presented here show that those who have transmissive conceptions understand that reading and writing are processes of encoding and decoding written messages that serve to obtain or transmit information. On the contrary, those who have more transactional conceptions conceive reading and writing as dialogic, creative and meaning-building processes that serve to reflect with others and transform their own thinking.

Keywords: reading and writing conceptions – academic literacy – academic writing – higher education – research training.

Introduction
Historically, universities have established practices that make them especially powerful social institutions. Some of these practices are reading, writing, and research. Reading and writing are in the academic environment ways of building knowledge (Zavala, 2011) but also ways of thinking, doing, and saying. James Paul Gee (2010) observed that people not only read and write texts but also do things with them, and usually doing things with texts involves other people.

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Lave and Wenger (1991) pointed out that social practices are always situated and made up of peripheral and substantial activities, which generates a continuous tension among the different agents that constitute a practice community. That is, the process of inclusion of individuals in a community takes place through their participation in that community’s particular practices. Likewise, Wenger (1998) points out that participating does not necessarily require a collaborative relationship but can involve all kinds of relationships: conflictive, harmonious, intimate, political, competitive, or cooperative. Furthermore, insertion in a community through their practices generates a series of beliefs, values and perceptions of the world in the individual that mediate his/her experience and at the same time transform the community, so the transformative potential of social participation runs in both directions (Wenger, 1998). Thus, we know and learn by participating in the many social activities through which we experience and give meaning to the world. For this reason, even though there are several factors that influence our ways of doing things through reading and writing, what we actually achieve will also depend on socially constructed meanings.

From a position based on the critical theory (Horkheimer, Adorno, 1994; Marcuse, 1993), which questions individualism, inequality and domination in favor of social change, I believe that the teaching of reading and writing must, in any case, aim to help us reflect on what we do, or rather on what we can do when we read and write. For this reason, I believe that appropriating these practices critically involves both learning about the elements that intervene in the production of discourse and knowing how to use them deliberately to participate in the activities valued, in this case, by academic communities.

In the late 1990s in Latin America it was thought that students who started college had already learned to read and write in previous educational levels and therefore had the tools to read and write as their teachers told them to (Carlino, 2005). Quite often they were required to do assignments in which they showed that they understood the specialized texts of disciplines and that, furthermore, they were able to write about or based on them to generate new ideas. Although this idea has not been completely left behind, in recent decades the need to pay attention to reading and writing in higher education (Villaseñor López, 2013) has been understood. Recognizing that reading and writing constitute strategic practices that may favor or restrict students’ access to learning within the disciplines underscores the importance of teaching reading and writing in the formation and academic enculturation (Padilla, 2019) of university students.

For these reasons, throughout this document I will use the phrase ‘teaching to read and write’ (alfabetizar, in Spanish) to refer to the process that seeks to accompany people’s learning of reading and writing and to favor their autonomy and insertion in society (Pipkin, Reynoso, 2010). Following Paula Carlino (2013), I understand that teaching to read and write academically is to accompany and potentiate the process of appropriation and critical reflection of reading.
and writing in university students to favor their autonomy, their participation, and guarantee their access to different academic communities.

Thus, the aim of this article is to present the progress made in the first stage of research in the framework of the Academic Literacy (AL) theory. I will now discuss the research problem and general objective, explain the theoretical approach and a brief state of the matter, describe the methodology, and discuss the results obtained so far.

Research Problem

After a process of democratization of higher education (Pérez, Natale, 2016), and with the aim of improving the students’ academic achievement, reading and writing courses have been created in several higher education institutions. These courses are usually offered in the early courses, seeking to make it easier for new students to have access to academic culture. But despite the efforts to favor student inclusion and permanence, schools are also faced with the dilemma between making up for the inadequate formation of many students who start their higher education and focusing on the particular features of academic discourse, which means leaving out students who do not have the level desired by the institution. Thus, efforts to remedy the inequalities with which students enter higher education have not yet had an impact on their permanence or their results.

This can be identified, for example, in data from the Economic Commission for Latin America and the Caribbean (CEPAL), which indicate that on average in this region, the percentage of people between the ages of 25 and 29 who finished their higher education was 18%, and in Mexico barely 7.6% (CEPAL, 2018). Even though we cannot say that the only cause of dropout is the students’ poor performance in basic skills such as reading, it does seem that compensatory programs do not help to solve this lag in a structural fashion.

According to Mexico’s National Institute for the Evaluation of Education (INEE, 2011), which evaluates the reading performance of students who finish middle education through the PISA (2009) and Excale (2010) evaluations, only 14% of the students are able to locate and organize different fragments of information that do not correspond to superficial tasks, i.e. that are not evident in a text, and can use formal or informal knowledge to form hypotheses or evaluate what they read critically. As for their writing performance, only 5% of them can write a fully structured argumentative text (introduce the topic, contextualize the reader, enunciate a thesis, make pertinent arguments, use source texts without distorting their contents, and draw conclu-
sions). Hence, we may argue that when most students begin their higher education they lack the tools required to cope with the challenge of reading and writing to analyze, solve problems, make decisions or generate knowledge.

Writing becomes even more relevant in graduate studies since nowadays, in a globalized world and an economy based on knowledge, having done graduate studies is one of the most valued requirements in the labor market. Several researchers have confirmed the difficulty found by students when they write their thesis to earn their graduate degree (Arnoux, 2009; Espino, 2015; Chois, Jaramillo, 2016; Peredo, 2016). However, the most recent inquiries into the conception of reading and writing as social practices indicate that the problem is not due to “deficiencies” carried by the students but to conceptions of reading and writing that are based on the idea that reading and writing are techniques for coding and decoding messages, individual cognitive processes that may be perfected through the teaching of certain grammar rules and formulas of contents that act as guides that the students must follow. As Carlino (2004) points out, teachers are unaware of the epistemic value of reading and writing:

Three widespread representations justify these assumptions. First, writing is conceived of only as a channel to communicate what one knows, and not as a tool for analysis that requires re-thinking (Alvarado, Cortés, 2000; Castelló, 2000). Second, and as an effect of the first, there is the belief that writing is an instantaneous task: if one knows what one wants to say, one only needs to put it in writing. Finally, as Russell (1990) noted, it is assumed that writing is a basic technique, which once acquired serves to put on paper any discipline’s knowledge. Thus, the epistemic potential of written production, the notion that writing is rewriting, and the existence of specificity in the texts used in each domain of knowledge, are ignored. On such questionable premises, university students tautologically attribute their difficulty in writing to their own incompetence, and the responsibility for that to their previous education.

The teachers themselves are not accustomed to reflecting with their students about the use of such practices in their respective disciplines, as would correspond to the development of academic literacy (Carlino, 2013). If we consider, as Morales and Cassany (2008) point out, that every discourse genre and every domain pose new challenges for the users of literate culture, it would seem logical and necessary that universities have the responsibility of helping their students to understand the texts that belong to each discipline so that they can successfully complete their education and become active and participative members of their respective communities.

In this respect, it is fundamental to conduct an analysis that allows us to find out, in the first place, how students and teachers conceptualize reading and writing, as well as which are these practices and how they are constructed. Thus, we could take as a starting point what people know in order to continue building upon their knowledge.
Research on this issue usually focuses on disciplines in the humanities and the social sciences (Carlino, 2005; Hernández, 2012; Difabio de Anglat, 2013; Navarro, 2017; Seide, Natale, 2017). However, inquiries into areas that are considered more technical such as architecture have only just begun and focus on showing the difficulty that students of these disciplines encounter to produce academic texts. As a community based on a discipline, architecture has specific ways of thinking, doing and saying things, but the studies conducted about reading and writing practices in this discipline are scarce. Castaño Perea and De la Fuente Prieto (2013: 302) point to this when they speak about the specific languages originated in technical disciplines:

These own languages frequently conceal a technical condition required for greater precision in the concepts, but that in other cases is only an excuse to demarcate the reserved domain of those who belong to a given clan or tribe, driving away from communication anyone who does not speak the same language. This situation, already studied in several disciplines and with an abundant scientific literature about it (Castelló, Donahue, 2012; Hafner, 2013), has nevertheless been systematically oblivious in the specific case of the architect’s language.

For this reason, and the lack of qualitative inquiries on the reading and writing practices in this discipline, the research of which this article is part has as its general aim to analyze and describe the conceptions on which the reading and writing practices in a graduate degree program in architecture are constructed.

Theoretical-conceptual approach

The definition of AL I have adopted is the one formulated by Paula Carlino (2013: 27):

I suggest calling “academic literacy” the teaching process that may (or may not) be started to favor the access of students to the different written cultures of the disciplines. It is a bold attempt to include them in the disciplines’ literate practices, the actions that the teachers, with the support of their institutions, undertake so that university students learn to present, argue, summarize, and search for information, rank it, relate it, assess reasoning, debate, etc. […] It entails two aims that, although linked, it is convenient to distinguish: teaching to participate in the genres common to a field of knowledge, and teaching the adequate study practices to learn in it. In the former case, one must teach to write and read as the specialists do, and in the latter, teach to read and write to appropriate the knowledge produced by them. […] Teaching academic literacy means helping to participate in contextualized discursive practices.

3 The major in Architecture in the university where this research was conducted is located within the technical area.
This definition, unlike the one previously presented by the author (cfr. Carlino, 2003), includes specifically the role of teachers and educational institutions to avoid “giving the idea that acquiring academic literacy is something that only concerns the students” (Carlino, 2013: 45).

It is also important to differentiate alfabetización (teaching to read and write, in Spanish) from literacidad and ‘written culture’. For Pipkin and Reynoso (2010), alfabetizar is the process that seeks to help individuals make progress in mastering reading and writing. Pipkin and Reynoso point out that this is a never-ending process; that is, one can always keep learning how to read and write better, regardless of one’s age or level of education. Daniel Cassany (2006: 38) remarks that literacidad (or literate practices) is everything related to the use of the alphabet: “from the correspondence between sounds and letters to the reasoning skills associated to writing”. Literacidad – borrowed from the English word ‘literacy’ – includes ways of doing, thinking, and saying, sociocultural practices in which knowledge and context affect each other. Emilia Ferreiro (2007: 27) calls ‘written culture’ the result of “reconstruction processes through which the socially and culturally constituted system of marks becomes the collective property of every new generation”.

All of these definitions converge in that reading and writing are social practices that vary according to the context of activities, are constantly transformed, generate belonging and identity, and are not exempt from conflict; that is, practices that constitute diverse and varied ways to understand the world. That is why it is not unusual to find literature in which these terms are used interchangeably.

AL suggests that insertion into a disciplinary and professional community is invariably conditioned by the communicative and epistemic skills that university students succeed in developing throughout their education and the opportunities that the institutions provide them with as they accompany them in this process of enculturation (cfr. Carlino, 2005; Díaz, 2006, Padilla, 2019) through study plans and programs that include courses on the discipline’s academic writing, as well as different forms of supporting the improvement of their discursive competencies (Sánchez Camargo, 2016: 47).

Writing to learn, think, communicate or earn credits means that teaching writing in college involves learning contents associated with the discipline, reflecting on the aims and structures of the discourse common to each discipline, evaluating and being accredited for what has been learned through transparent and agreed upon instruments, de-naturalizing the concepts, practices and expectations of the different domains, and expressing creatively the perspectives and hypothesis that can explain and improve our society (Navarro, 2017). However, as some research has shown, there is widespread lack of knowledge about what reading and writing entail in each discipline. This can be seen in the discourse of administrators, teachers, and even

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4 I understand enculturation as the ways of understanding, sharing, adopting, and incorporating practices from a cultural environment.
students, when they need to conceptualize their reading and writing practices (Carlino, 2013; Navarro, 2012; López, 2013; Sánchez, 2016).

The importance of understanding the conceptions that underlie reading and writing practices in higher education is linked to its mediating function in the production of scientific and academic discourse. If we could understand how these conceptions – often implicit, even for the actors themselves – are constructed, and discern which factors influence this construction process, we might help students reflect on them and generate better strategies so that they could appropriate critically the practices of their community.

In Mexico there have been few but valuable contributions to research on conceptions of academic writing (Hernández, 2008, 2012; Hernández, Rodríguez, 2018; Gaeta et al., 2020), and the development of lines of research about them is almost non-existent. This implies a disadvantage in understanding which factors intervene in the quality of written academic production and the design and implementation of strategies to teach writing in university contexts (Zanotto, 2018).

According to Hernández Rojas (2012), research on this notion has been interested in two different but complementary dimensions: that which refers to the individual dimension, seeking to show the existence of a causal relationship between beliefs and ways of writing, and that which refers to the collective dimension, aiming to show the existence of a causal relationship between beliefs and practices of writing, and arguing that beliefs around the way people write are formed through the interactions of individuals in a given community; that is, beliefs are constructed by the types of practices that communities have. However, as Hernández Rojas and Rodríguez Varela (2018) point out, more research is needed to understand the latter relationship.

For this reason, in this research we addressed the theory of the models implicit in the reading and writing processes, which refer to different patterns of commitment between readers and writers. For Schraw and Bruning (1996), implicit models of reading refer to a number of epistemic beliefs that are not necessarily conscious and that are linked to where the meaning of a text is believed to be. In their early research, Schraw and Bruning assessed the beliefs about reading of university students and asked them to read a short story and write a comment. The students with beliefs linked to the transactional model included a greater number of critical evaluations and personal reactions in their writings. In later research, White and Bruning (2004) assessed beliefs about writing and found that students with transactional beliefs about writing produced better quality writings in which they integrated critical content with personal ideas. These authors note that the models are independent from each other, so agreeing with the assumptions of one of them does not determine agreement with the assumptions of the other.

Thus, the transmissive model is based on the belief that the meaning of a text is independent of the reader or the writer, and that the information is transmitted from the author or the text to the reader’s memory. Those closer to the transactional model believe that the meaning...
of the text is in the mind of the reader or the writer and for this reason it must be constructed actively by the readers or the writers, integrating their own thoughts in the process. Therefore, the transmissive model predisposes readers and writers to be passive receivers of meaning instead of active constructors of meaning, while maintaining beliefs consistent with the transactional model leads to a more critical and personal commitment during the reading and writing process. In other words, transactional models may predispose readers and writers to a variety of constructivist processes.

Implicit theories of writing may also be influenced by the community in which the practices take place. In many cases studied, the writing tasks practiced in the university tend to be traditional and do not fit in with the notion of a tool for the development of learning, although university professors recognize their potential for learning in the disciplines (Villalón, Mateos, 2009; Castelló et al., 2011; Solé et al., 2005). Furthermore, the studies report the serious difficulties students find to make an epistemic use of writing.

State of the matter
Research on AL has increased internationally in the last decade. A quick search through databases shows that in 2010 there were around 100 publications of articles, lectures and books in Spanish and 350 in English, while in 2018 publications in Spanish reached more than 500 and over 940 in English.

However, as I have mentioned, scientific production about how different actors in the area of education conceive reading and writing practices is still at an early stage. Among them we find the work on representations of writing conducted by Monserrat Castelló and Mar Mateos (2015) with 1,044 students and 280 professors in nine Spanish universities, where they analyze results observed in different disciplinary areas (Arts and Humanities, Social Sciences, Medicine, Engineering and Architecture). Their methodology was quantitative, using the European Writing Survey (EUWRIT) with a version for teachers and another one for students. They observed that in the representation on what writing well entails, “students, to a greater extent than teachers, gave more importance to aspects related to the content: objectivity, creativity, argumentation, structuration, critical thought, justification with scientific sources” (Castelló, Mateos, 2015: 496).

In her doctoral dissertation, Ruth Villalón (2010) conducted three studies. The first one included students of secondary school, high school and college in public institutions in Madrid and Guadalajara (Spain). She distinguished two types of conceptions, an epistemic one and a reproductive one, within which she analyzed several facets of writing: uses and functions, planning and textualization, and review and modifications. The aims of her study were 1) to identify the conceptions of writing of secondary school, high school and college students, 2) to find out how these conceptions varied depending on the facet of writing explored, and 3) to learn about
the effect of the educational level, the students’ gender and their mastery of knowledge about such conceptions. Her sample comprised 202 secondary school students, 163 high school students and 310 college students. She used accidental sampling and created an instrument based on three sources: answers to a previous open-answer questionnaire about writing, some items from questionnaires used in other research, and the theoretical framework of writing models (Cassany, 1999; Graham et al., 1993; Scardamalia, Bereiter, 1987) and implicit theories (White, Bruning, 2004; Pozo et al., 2006). Her results show that while secondary school students are closer to a reproductive conception, college students are closer to an epistemic one. However, not even this group of students fully agreed with an epistemic scale.

In Chile, Navarro et al. (2020) inquired into social representations about academic writing and its teaching with freshman students in six disciplinary areas: Arts, Humanities, Engineering, Health Sciences, Pedagogy in Science, and Social Sciences. Their qualitative study analyzed 360 open answers from 180 informants. The questions pointed to the difficulties and challenges and to the teaching of writing, with the aim of generating evidence that could orientate institutional and pedagogical policies of accompaniment in the learning and teaching of writing. Their results show that for students writing represents a greater challenge in handling viewpoints of the different sources, of possible readers and their own, and developing their own ideas in a text. They found it difficult to accommodate their critical or personal contributions to the expectations of the discipline, the teachers, and the institution. About the teaching and learning of writing, students believed it is learned through practice, accompanied by the teaching and suggestions of teachers and tutors.

In Mexico, the research on implicit theories in college students conducted by Hernández Rojas (2012) and Hernández Rojas and Rodríguez Varela (2018) show the differences among disciplines. In the case of Chemistry students, there were predominant implicit conceptions of a preconstructive type; that is, they tried to generate a transformative writing without quite achieving it, but it could not be said that it corresponds to a conception of a receptive-reproductive type either. In contrast, they found in the Literature students implicit conceptions of a constructive type, characterized by the author as that which appreciates the complexity of the task of writing, takes into account the different variables that come into play, and systematically identifies rhetorical-communicative contents, leading to greater reflexive and self-regulatory activity in the writing task. Based on that, Hernández (2012: 57) argues that:

They belong to academic-disciplinary communities with a different discourse when speaking about texts and their functions. While literature students are in an academic community that surely has a richer and more useful discourse to speak about texts, basic elements of reading and writing and their communicative, rhetorical, and aesthetic functions, chemistry students do not seem to have at their disposal this type of discourse.
Likewise, Hernández (2012) remarks that her results do not coincide with previous studies in which more conceptions of a reproductive type than constructive conceptions were detected in college students (Villalón, Mateos, 2009), although their findings differ in that most students “do not consider writing as a potential tool for the development of learning”; i.e., they do not consider its epistemic function.

Gaeta et al.’s (2020) exploratory study sought to identify the type of conceptions of academic writing in Medicine students in its epistemic and reproductive dimensions. It was conducted with a quantitative approach, with the participation of 359 students from the first to the tenth semesters of the School of Medicine of a university in the city of Puebla, Mexico. They used the questionnaire “Instrument of conceptions about academic writing”, based on White and Bruning (2004) and Villalón (2010), with 35 Likert-type items. Their findings show that, in agreement with the literature (Villalón, Mateos, 2009), the students did not show a full awareness of their epistemic beliefs, which according to the researchers means that although they have a more elaborate view than students in previous educational levels, they still adhere to the conception of reproducing information through writing. However, as in other research (Hernández, 2012, 2017; Hernández, Rodríguez, 2018; Villalón, 2010), university students did not fully agree with epistemic conceptions, which led to some difficulty in elaborating their ideas and learning through academic writing. The authors point out that in further research it would be advisable to obtain information on writing practices in the context of the teaching and learning of Medicine, as well as to apply qualitative methods to explore the students’ perception of such practices in the discipline they study.

Research work has explored how teachers and students conceive reading and writing in the academic context both at a middle-high and higher educational levels, and usually classifies these conceptions in two opposite extremes: one closer to the reproductive (where writing is seen as a tool to reproduce information) and another one closer to the epistemic (as a tool to learn). These studies use quantitative measurement instruments and samples that include different disciplines, although they do not delve into individual practices. Thus, the research I present here seeks to establish a complementary view from a qualitative approach in a discipline that has not been explored yet.

Methodology
The research work this article is based on is descriptive and transversal. The graduate degree program in Architecture with which I worked is offered by a public university in the state of Veracruz, in Mexico. It is a program with a research orientation with three Lines of Generation and Application of Knowledge (LGAK): Residential Inhabitability, Architecture, City and Citizenship, and Theory, Criticism and History of Architecture. The classes are at school, with an interdisciplinary profile and a flexible curricular structure constituted by compulsory and optative educatio-
nal experiences (EE). Since August 2011 the program has been part of Mexico’s National Registry of Quality Graduate Programs, so it follows CONACyT guidelines and internal mechanisms to ensure its quality.

**Subjects-collaborators**
The community is made up of:

- a Basic Academic Core (BAC) of nine full-time professors,
- the students who make up the two generations active in the period of January to July 2020: eight generation (in their fourth semester) and ninth generation (in their second semester), with 9 and 10 students respectively.

The program includes 18 EE, equivalent to 45 hours of theory and 18 of practice. Although at first my intention was to work with all the professors of the BAC and students of the two generations mentioned, the circumstances of the COVID-19 contingency (which began on the dates proposed for the application of the questionnaire in April 2020) forced me to implement my methodological tools with only volunteer subjects, since I could not contact all the professors and students. Thus, my subjects-collaborators were 20 in total: 12 students (4 from the eighth generation and 8 from the ninth) and 8 professors.

The professors who participated (75% female and 25% male) were all Mexican. 75% are between 50 and 64 years old and 87% have a Ph.D. in the area of Architecture or Urbanism. From the students (58% male and 42% female), only one of them was not Mexican. Their ages ranged from 30 to 38 (50%) and 24 to 29 (50%). 17% had already done other graduate studies. Table 4 summarizes this data.

**Design**
The design proposed for this qualitative research is based on the one formulated by Benedetto Minacore (2003), who used a *pluri-methodical approach* to delimit his research problem, since he believed that the contributions of different techniques and methods allowed him to triangulate, contrast, and verify the accuracy of the data collected. The triangulation of methods and actors (students, professors and study program) allows us to increase the validity and reliability of the information obtained and have better knowledge of the object being studied. Thus, I have divided my methodology into two stages, of which I will describe the first one, which has concluded.

In the first stage I applied a self-administered questionnaire with open questions. Monje Álvarez (2011: 135) defines the self-administered questionnaire as a format that the research subjects fill out themselves. It has the advantage that it “reduces the bias caused by the pres-
ence of the interviewer and has a simple format that makes it easy to analyze and reduces application costs”. Then, based on the questions in the questionnaire, I analyzed the EE that make up the study program.

Development and application of questionnaires
The questions developed for the questionnaire were open and of opinion, since it sought to identify similarities and differences among the different actors, describe their transmissive and transactional conceptions (starting from the ones already defined by the theory) and inquire into the reading and writing practices that correspond to each type. I also generated specific questionnaires for professors and students. Both questionnaires were validated in February 2020 by a group of three alumni of the graduate program and three professors of the School of Architecture who are not part of the BAC.

The validation process of the questionnaires took two weeks. I sent the questionnaires via e-mail and met with each one of the alumni and professors to listen to their returns. Based on them, I reformulated some questions and regrouped others. I also organized the questions in two sections: reading and writing in general, and reading and writing in the academic environment, to see if the answers differed according to the context of reference.

The questionnaires were applied virtually through the application Microsoft Forms. The answers collected in a three-week period of April 2020 were automatically recorded on this application. I obtained 20 questionnaires: 12 completed by students and 8 by teachers. To attend to the ethical considerations of my research, I included an informed consent section that detailed the research objectives and stated that both the information provided and the identity of the participants would be made anonymous.

Categorization process
The definition of categories and subcategories was one of the fundamental elements of my research. According to Cisterna (2005), categories and subcategories may be a priori; i.e., constructed based on the theory before the data gathering begins, or emergent, arising from the field work conducted. Cisterna also recommends making a list of conceptual and operational tools before going into the field, especially for researchers who do not have much experience, to make their inquiry easier. Therefore, for the first stage of my research work I decided to make a list of a priori categories, in order to go into the field and collect data in a more organized fashion.

The categories I used to create the questions in the questionnaire were constructed based on the definitions of implicit models of reading (Schraw, Bruning, 1996) and beliefs about writing (White, Bruning, 2004). Thus, I established two main categories and twelve subcategories. In the category reading I included the subcategories of definition of reading, role of the reader,
and meaning of the text, according to transmissive beliefs and according to transactional beliefs. I did the same with the category writing (see Table 1).

Table 1 A priori categories based on the definitions of implicit models of reading (Schraw, Bruning, 1996) and beliefs about writing (White, Bruning, 2004)

<table>
<thead>
<tr>
<th>CAT.</th>
<th>SUBCATEGORIES</th>
<th>DEFINITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>READING</td>
<td>Definition of reading according to TRANSMISSIVE BELIEFS</td>
<td>Reading is analyzing objectively the structure and contents of a text.</td>
</tr>
<tr>
<td>READING</td>
<td>Definition of reading according to TRANSACTIONAL BELIEFS</td>
<td>Reading is an inherently subjective process rather than an act of reception of the author’s ideas or a translation of the meaning of a text in the most objective way possible.</td>
</tr>
<tr>
<td>READING</td>
<td>Role of the reader according to TRANSMISSIVE BELIEFS</td>
<td>Emphasis on the author. The reader is a passive receptor who extracts the meaning foreseen by the author.</td>
</tr>
<tr>
<td>READING</td>
<td>Role of the reader according to TRANSACTIONAL BELIEFS</td>
<td>Emphasis on the reader. Readers interpret a text taking into account their own objectives and personal purposes within a particular context.</td>
</tr>
<tr>
<td>READING</td>
<td>Meaning of the text according to TRANSMISSIVE BELIEFS</td>
<td>The meaning is in the text and must be extracted objectively by the reader.</td>
</tr>
<tr>
<td>READING</td>
<td>Meaning of the text according to TRANSACTIONAL BELIEFS</td>
<td>The meaning of the text is constructed by the reader in respect to his/her own previous knowledge of the mastery of the subject, reading experiences, and situational objectives. Hence, a text means different things for different readers, regardless of what the author intended or what the text contains.</td>
</tr>
<tr>
<td>WRITING</td>
<td>Definition of writing according to TRANSMISSIVE BELIEFS</td>
<td>Conceive writing as a form of transferring information from authorized sources to the reader so that the way in which the writer’s ideas are reflected in the text is limited.</td>
</tr>
<tr>
<td>WRITING</td>
<td>Definition of writing according to TRANSACTIONAL BELIEFS</td>
<td>Conceive writing as a subjective process in which the writer’s emotions are brought into play.</td>
</tr>
<tr>
<td>WRITING</td>
<td>Role of the writer according to TRANSMISSIVE BELIEFS</td>
<td>A good text is that in which the least possible number of changes are made.</td>
</tr>
<tr>
<td>WRITING</td>
<td>Role of the writer according to TRANSACTIONAL BELIEFS</td>
<td>It is important to develop a distinct style of writing (author’s voice). There is a constant concern for revising and improving what has been written.</td>
</tr>
<tr>
<td>WRITING</td>
<td>Meaning of the text according to TRANSMISSIVE BELIEFS</td>
<td>What is important is that the information reaches the reader in an objective fashion.</td>
</tr>
<tr>
<td>WRITING</td>
<td>Meaning of the text according to TRANSACTIONAL BELIEFS</td>
<td>Writing helps to understand better what one is thinking.</td>
</tr>
</tbody>
</table>

**Analysis of the questionnaires**

To analyze the data obtained in the questionnaires I applied the Structural Analysis of Discourse (SAD) proposed by Sergio Martinic (2006: 300) and inspired in Greimas’ structural semantics.
This type of analysis proposes building categories based on rules and procedures that seek to order and classify the discourse material in order to establish the principles that organize the subjects’ conceptions about specific problems and practices:

Through the categories the data are transformed and the text is reduced to units that can be related, compared, and added to larger units. This transformation in turn implies moving from the literal text and meaning to categories and underlying links among categories that produce meaning and practices in specific contexts.

Based on the process of coding of the questionnaires, for which I used the Atlas.ti (version 8.4.4) software, I identified eight basic units of meaning:

- Definition of reading
- Definition of writing
- Usefulness of reading in the academic context
- Usefulness of writing in the academic context
- Competencies needed to read academic texts
- Competencies needed to write academic texts
- Academic reading practices
- Academic writing practices

Each of these units corresponds in turn to the two types of beliefs established in the theory, transmissive and transactional. Therefore, in my analysis I worked by generating relationships of opposition and equivalence (as indicated by SAD), which resulted in 117 codes classified under each of these units. The emerging codes helped me to redefine what had been suggested by the theory; i.e., the *a priori* categories with which I had approached the field. This is why I regard this set of eight units as preliminary results (see below).

In my work with Atlas.ti I used both coding by list and *in vivo* coding, since the answers themselves suggested words or phrases that corresponded with the units of meaning that had been generated.

**Analysis of the study program**

The graduate program is made up of 18 EE. Each experience consists of several sections in which their contents are described: for instance, which professors teach it, which is the unit of competency that the students are intended to develop, as well as the theoretical, heuristic and axiological knowledge the student is expected to achieve. I analyzed the EE following the same steps I used for the analysis of the questionnaires. In general, the program did not show information that could be linked to the types of beliefs.
I will now show the results obtained in the first stage of research ended in June 2020.

Conceptions of reading and writing in the graduate program
The analysis of the data allowed me to describe, in a preliminary way, the transmissive and transactional conceptions of the teachers, students, and the program, and to establish similarities and differences. As can be seen in Figures 1, 2 and 3, the prevailing conceptions in the academic community studied are the transmissive ones, both in teachers (56%) and in students (63%).

These preliminary results also show that those who have transmissive conceptions understand that reading and writing are processes of coding and decoding of written messages that serve to obtain or to transmit information. On the other hand, those who have conceptions closer to the transactional conceive reading and writing as dialogic, creative processes of construction of meaning that serve to reflect with others and transform one’s own thinking. These findings are detailed below and summarized in Tables 2 and 3.

Figure 1: Percentages of transmissive and transactional conceptions in professors

<table>
<thead>
<tr>
<th>DOCENTE</th>
<th>Transmissive</th>
<th>Transactional</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOCENTE 1</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>DOCENTE 2</td>
<td>9%</td>
<td>91%</td>
</tr>
<tr>
<td>DOCENTE 3</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>DOCENTE 4</td>
<td>89%</td>
<td>11%</td>
</tr>
<tr>
<td>DOCENTE 5</td>
<td>39%</td>
<td>61%</td>
</tr>
<tr>
<td>DOCENTE 6</td>
<td>31%</td>
<td>69%</td>
</tr>
<tr>
<td>DOCENTE 7</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>DOCENTE 8</td>
<td>30%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Source: author’s own.
Figure 2: Percentages of transmissive and transactional conceptions in students

![Bar chart showing percentages of transmissive and transactional conceptions in students.](image)

Source: author’s own.

Figure 3: Percentages of transmissive and transactional conceptions in professors and students

![Bar chart showing percentages of transmissive and transactional conceptions in professors and students.](image)

Source: author’s own.
Transmissive conceptions of academic reading and writing
According to the transmissive conceptions of teachers and students in the graduate program in Architecture, reading is defined as a process that requires interpreting signs to obtain information. Thus, in the academic context, reading serves to acquire knowledge and therefore in order to understand the meaning of a text and have access to the tradition and knowledge of his/her field, the reader must decode it. That is, reading is understood as an individual process in which the reader receives, interprets or internalizes what the text says.

Among the competencies or knowledge considered to be necessary to deal with reading in this context are reading comprehension, being able to rank information, and knowledge of the subject and the discipline’s language. Some of the reading practices of these teachers and students include identifying (underlining) main ideas, reviewing bibliography to broaden knowledge, and writing text summaries.

Writing, according to transmissive conceptions, is transmitting what we think through words, and thus what we do when we write is to encode our knowledge in order to put it down in a text. In the academic context, writing serves to communicate the results of research or our insights about an issue. That is, writing serves to spread knowledge and it is understood that those who receive this knowledge are one’s peers.

As for the writing skills in academic contexts, it is considered necessary to be able to analyze and do research, know how to organize information (knowledge of the subject, the structure of the text and the language norms), have previous experience, and be objective. Some writing practices linked to these conceptions are organizing the ideas/information that will be transmitted, writing clearly and concisely, and verifying the coherence of the text. These points are summarized in Table 2.
Table 2: Definition, usefulness, competencies needed, and academic reading and writing practices according to transmissive conceptions

<table>
<thead>
<tr>
<th>TRANSMISSIVE CONCEPTIONS OF ACADEMIC READING AND WRITING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
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<td></td>
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<tr>
<td><strong>Usefulness</strong></td>
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<tr>
<td><strong>Competencies needed</strong></td>
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<tr>
<td><strong>Practices</strong></td>
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</tbody>
</table>

**Transactional conceptions of academic reading and writing**

Those who have transactional conceptions of reading understand reading as a dialogic, creative process of construction of meaning; that is, the reader not only receives information, but also participates in the construction of the meaning of what he/she is reading. Therefore, in order to understand a written message one must know/find out about the context, since reading is considered to be a situated practice.
According to this type of conceptions, reading in an academic context serves to establish a dialog, develop a position, and ground one's ideas. It also serves to think (analyze, question, problematize, form one's own opinion) and develop ideas, even based on the writing, so that reading also helps us to learn to write. Among the knowledge required to deal with reading in this context is the ability to reflect on one's own interests and motivations and make a critical analysis (formulating reading objectives, recognizing the structure and finding out about the context of the text). Some reading practices linked to transactional conceptions are establishing a reading objective, finding out about the context and the author, and reviewing the theoretical approaches discussed in the text.

According to transactional conceptions, writing is defined first and foremost as a tool for communication, so when we write we must take into account who our reader will be. Those who have these conceptions maintain that writing is a recursive and creative process through which one can think and build knowledge. Writing allows us to develop our own thoughts, motivate dialog, develop a position, and generate knowledge. Writing can also be a tool for teaching and learning. When writing about the process of writing a thesis, a student said that “Also, through the writing process, we can organize our ideas, solve problems and make decisions”.

Some of the skills needed to write in an academic context are an investigative capacity that is linked to the competency for critical reading (knowing how to look for relevant sources, being able to recognize the purpose of the text), an argumentative capacity, previous knowledge of the subject addressed, and the ability to develop one's own voice. Also important is the creative function that members of the discipline's community assign to these practices.

Also significant are the writer's cultural capital, academic humility, ethics, and ability to write in a simple way. Some of the writing practices linked to transactional conceptions are defining who the reader will be, generating maps to break down ideas, setting objectives, and defining a position. Table 3 summarizes these aspects.
### Table 3: Definition, usefulness, competencies needed, and academic reading and writing practices according to transactional conceptions

<table>
<thead>
<tr>
<th>TRANSACTIONAL CONCEPTIONS OF ACADEMIC READING AND WRITING</th>
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<tbody>
<tr>
<td><strong>Reading</strong></td>
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<td><strong>Definition</strong></td>
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<tr>
<td><strong>Usefulness</strong></td>
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<tr>
<td><strong>Competencies needed</strong></td>
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<td><strong>Practices</strong></td>
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Source: author’s own.

### Some final thoughts

Based on the analysis of the results of this stage of research, I have been able to identify the presence of the two types of conceptions of academic reading and writing, transmissive and
transactional. These conceptions are not shown as opposed or in a pure form in a person, but rather more of one than of the other. This coincides with findings in other research (White, Bruning, 2004; Villalón, Mateos, 2009; Villalón, 2010; Hernández, Rodríguez, 2018; Gaeta et al., 2020) that both types of conceptions may coexist in the same individual.

Also, in the previous paragraphs I have reported in general some of the reading and writing practices of teachers and students of the graduate program that correspond to both types of conceptions. Despite the differences between the two conceptions, one may identify similar practices such as, for instance, referring to other sources to enhance the comprehension of a text or to verify the coherence of the written text. The practices that correspond to transactional conceptions reflect a more critical and meta-reflexive use of reading and writing. This coincides with what White and Bruning (2004) pointed out when they evaluated beliefs about writing and revealed that students with transactional beliefs produced written compositions that integrated critical contents and personal ideas.

In general, we confirmed that those who had transmissive conceptions predispose themselves as passive readers and writers instead of active constructors of meaning, as is the case of those with a greater number of transactional conceptions (cfr. Schraw, Bruning, 1996; White, Bruning, 2004).

Although these preliminary results will be complemented by a second methodological stage proposed in the design of this research, it is pertinent to observe that – as Gaeta et al., 2020 already pointed out – further inquiry is needed into the practices and conceptions of reading and writing that take place in the different disciplines of the academic context.

References


Solé, I.; M. Mateos; M. Miras; E. Martín; I. Cuevas; N. Castells; M. Gràcia (2005). Lectura, escritura y adquisición de conocimientos en educación secundaria y educación universitaria. Infancia y Aprendizaje, 28(3), 329-347. https://doi.org/10.1174/0210370054740241


