



“I’m Applying Mathematical Methods to Social Sciences”: Norms in Disciplinary Writing and Methodological Paradigms

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In contemporary academia L2 speakers of English are actively involved in producing research texts in English. Hence, for EAP and ESP researchers it is important to study how L2 speakers write their research and to uncover factors influencing their linguistic and discursive choices. The paper reports on the analysis of 18 interviews with L2 scholars working in the broad domain of social sciences and humanities, some of whom are multidisciplinary researchers. Based on the discussion of epistemic stance expression, the study explores the norms influencing L2 scholars’ research writing practices. The results show that along with disciplinary norms, the norms of writing in a certain methodological paradigm seem to be a significant factor shaping research writing. Another important factor influencing linguistic features of research text is journal requirements. The results have pedagogical implications since they reveal the influences that should be taken into consideration by research writing course designers and instructors

Keywords: disciplinary norms, methodological paradigm, English for Research Publication Purposes (ERPP), epistemic stance

Introduction

“Often the difference between qualitative sociologists and quantitative sociologists who conduct surveys, analyse data, including the new big data, is significantly bigger than the difference between qualitative sociologists and anthropologists” (Soc4). That is how a sociologist who participated in the study characterised the situation in her field stressing the difference between quantitative and qualitative research within one discipline and pointing to similarities of research belonging to the same methodological paradigm. Another interviewee, a multidisciplinary scholar, identified a gap in academic writing guides that fail to address specific features of texts written in a certain methodological paradigm: “There’s always a lot that is being written about the organisation of an academic paper. Usually, they write about the structure, about particular features of a discipline, and very rarely – about the differences between quantitative and qualitative research” (Soc5).

Both interviewees are typical representatives of contemporary academia outside Anglophone countries: their L1 is not English, they use English as a Lingua Franca (ELF)¹ in their professional communication and publish research mostly in English (Jenkins & Mauranen, 2019; Kuteeva et al., 2020). They are similar to scholars all over the world who, using the terminology of Henderson, Honan and Loch, are part

¹ For scholars working in higher education outside Anglophone countries, English may be L1, L2 or additional. However, in this paper I treat them as ELF users because, as Jenkins and Mauranen (2019) state, “the settings where English is a medium of higher education are essentially ELF settings” (p. 6)



of an “academicwritingmachine” investing much effort to produce publications that “count” (2016, p. 4).

In the interview excerpts given above, the scholars implicitly raise questions that are topical for EAP and ERPP researchers: which norms determine linguistic and rhetorical choices the writers make when they produce research texts in English and how important is the discipline in this process? In applied linguistics, the view that each discipline has its own norms regarding the language use is commonly accepted. It was built on the ideas of Becher (1989) who used the term “territory” to describe the discipline. Later, Becher and Trowler stated that disciplines “lend coherence and relative permanence to academics’ social practices, values and attitudes across time and space” (2001, p. 23). This implies that disciplines have rather stable imposed norms, i.e., the norms enforced top-down by the disciplinary discourse community. In EAP research, there has been a wealth of studies devoted to linguistic and rhetorical variations across disciplines (see, e.g., Clughen & Hardy, 2012; Flowerdew & Costley, 2017; Hyland, 2000, 2012; Maswana & Kanamaru, 2013). As Gray (2015) put it, a “look at any journal focusing on English for Academic Purposes [...] will reveal a large body of research about language use in the disciplines from a variety of perspectives and research methodologies” (p. 10).

However, recently the perception of the discipline as a “territory” has been questioned (Bamber et al., 2012). One of the main reasons for that, according to Trowler (2014), is a clear shift in research towards multidisciplinary projects. Trowler suggests that disciplines should be viewed as “reservoirs of knowledge resources” that a researcher utilizes in their own ways forming individual “localised repertoires” (p. 1728). In such an approach, the imposed disciplinary norms are in constant interaction with so-called “spontaneous norms” (Mauranen, 2020) that researchers construct when they write their texts. Trowler’s approach to the discipline has been accepted by some EAP researchers who suggest that there seem to be no shared disciplinary norms (e.g., Olinger, 2014) and show that epistemological/methodological, structural and individual factors play a significant role in shaping writing practices of social scientists (Kaufhold & McGrath, 2019, p. 115).

In contrast to the high number of studies highlighting differences across disciplines, research on paradigmatic variations, is still scarce. To my knowledge, the only systematic study of linguistic variation within disciplines is that of Gray (2015) who convincingly shows that some linguistic characteristics of papers belonging to different methodological paradigms within one discipline may be different. Her study also points to some similarities in research papers written in the same methodological paradigm but belonging to different disciplines. In the last decade, there have appeared some studies analysing certain linguistic features of research texts written in different paradigms (see, e.g., Cao & Hu, 2014; Hu & Cao, 2015 on the use of metadiscourse) or even comparing texts adopting different approaches within one paradigm (Liu & Tseng, 2021 on the use of hedges and boosters).

The limited attention of EAP and ESP scholars to linguistic variation of research texts influenced by the methodological paradigm is remarkable considering that the two methodological paradigms – quantitative and qualitative – are significantly different in terms of the philosophical base and the approaches to data collection, analysis and interpretation. In qualitative studies which, according to Leavy (2014), are often aimed “to explore, describe, or explain social phenomenon” and “unpack the meanings people ascribe to activities, situations, events, or artefacts” (p. 2), the researcher is actively involved in the construction of social reality and cultural meanings. On the contrary, in quantitative research, which goal is often considered to measure objective facts, the researcher is detached (see Newman, 2014, p. 17 for an overview of differences in qualitative and quantitative approaches).

In academic writing guides, the differences within disciplines are not usually highlighted. In one of the most popular manuals on academic writing, Swales and Feak (2012) draw students’ attention to the differences between disciplines throughout the book but do not consider the specificity of writing in a certain methodological paradigm. In Li and Flowerdew’s review of existing ERPP pedagogical practices (2020), the issues of writing in different methodological paradigm is not discussed which implies that ERPP courses instructors do not attach importance to them. This reflects the general approach to teaching research writing that can be explained by the lack of studies confirming or denying linguistic distinctions between qualitative and quantitative research papers.

Outside EAP studies, the specificity of writing research papers in different paradigms is reflected in the titles of writing guides for novice researchers (e.g., Fallon, 2016; Wolcott, 2009). As a rule, they explain how to do the research design, to structure the paper, what content to include, and how to interpret the data. In very rare cases they touch upon some linguistic features of texts. For example, Holliday (2007) states that qualitative and quantitative writing is very different (p. 122) and devotes a chapter to the description of how to make claims in qualitative studies stressing the importance of using cautious language and giving examples of the use of hedging. My search for writing guides that highlight the linguistic difference between qualitative and quantitative papers was not successful. The only book that has separate chapters on writing quantitative and qualitative papers (Yellin, 2009) was recommended to me by an interviewee who had been specially searching for such material. However, Holliday's and Yellin's guides may be considered exceptions because such guides do not focus on teaching academic English; they are researcher guides rather than writers guides.

The present study is part of a larger project aimed at investigating L2 scholars' research writing practices (Shchemeleva, 2021). It was inspired by the case study that explored L2 scholars' perception of disciplinary norms of epistemic stance expression in political science (Shchemeleva, 2020). The results of the interview analysis suggested that the participants did not seem to have a shared understanding of disciplinary norms; however, their narratives highlighted the importance of the methodological paradigm for their writing practices. Based on these results and taken into consideration the conclusions drawn by Gray (2015) and Kaufhold and McGrath (2019), this study investigates how L2 researchers from the broad domain of social sciences and humanities (SSH) perceive disciplinary norms and norms of methodological paradigm. It reports the results of the analysis of parts of longer interviews with 18 scholars working in a research university in Russia.

To give the discussion a focus around which the conversation could extend to the related topics of norms guiding research writing, I chose to examine one meaning category – epistemic stance. Following Biber et al. (1999), I treat epistemic stance as a semantic category conveying various modal and evidential meanings that “are used to present speaker comments on the status of information in a proposition” and express a writer's “certainty (or doubt), actuality, precision or limitation”, or indicate “the source of knowledge or the perspective from which the information is given” (Biber et. al, 1999, p. 972). Epistemic stance was chosen because it is considered a ubiquitous feature of research writing that is expressed to various degrees by any author. Moreover, many studies showed that epistemic stance expression varies in different disciplines (e.g., Hyland, 1998; Vold, 2006; Wang & Jiang, 2018). Although contrastive studies of the use of epistemic stance in different methodological paradigms are very scarce, the study of Hu and Cao (2015) shows that quantitative research papers contain more epistemic expressions than qualitative ones.

The study was guided by the following research question: How do L2 scholars from SSH perceive disciplinary norms and norms of the methodological paradigm (qualitative and quantitative) regarding epistemic stance expression? The paper does not aim at identifying and comparing the norms of epistemic stance expression in different disciplines and methodological paradigms. On the contrary, it seeks to find commonalities in the perceptions of disciplinary and methodological norms by L2 researchers representing a variety of disciplines in SSH and to reveal how important, from the interviewees' perspective, disciplinary and methodological norms are for their research writing practices.

Methods

Participants and Settings

The study was conducted in a leading Russian research university that offers a number of BA and MA programmes in SSH taught in English. The university has strict requirements for faculty members in terms of publication activity: scholars are expected to publish research in high-ranking journals, which are almost all English-medium journals.

To select the participants, I applied three criteria. The first one is the scholar's disciplinary affiliation. After the exploratory case study of scholars' writing practices in political science (Shchemeleva, 2020), I decided to broaden the scope and invite representatives of other social science disciplines. I also included scholars from the humanities to explore if the methodological divide is important for writing practices in those disciplines where qualitative research has traditionally been the main methodological paradigm (Gray, 2015). Since the study seeks to reveal common research writing practices of scholars belonging to a broad domain of SSH rather than compare the perceptions of scholars writing in different disciplines, I tried to make the sample as varied as possible in terms of disciplinary affiliation. I could not be sure which particular discipline each participant associates themselves with; I could only predict the disciplinary field of the interviewees based on their departmental affiliation. To select the participants, I chose the departments of Sociology, Political Science, Management, Public Administration, and History.

The second criterion is the number of publications in English each participant has. I decided to invite only scholars who have at least five papers published in English in reputable journals. I assumed that this number guarantees that the participants are familiar with the norms of English research writing.

The third selection criterion is the career stage since it may have a significant influence on research writing practices (Gnutzmann & Rabe, 2014). I decided to invite middle-career researchers because they seem to be very active in their research and publication activity.

To choose the participants, I searched department webpages. I wrote emails to potential participants explaining in very general terms the purpose of the study. I also asked them to provide for the analysis a draft of a manuscript that had not been previously proofread or checked by any native speaker and/or language professional. Eighteen people agreed to participate (five males and thirteen females).

The age of the participants ranges from 31 to 46 years. They all hold PhD degrees: 13 received their degree from a Russian university (one of them has a Habilitation degree²), three from an international university, two have two degrees from a Russian and an international university. Their L1 is Russian. For all of them, English has either become or always been the main language of publication. According to the data collected in the interviews, the average number of papers authored by each participant is 16.

The interviews revealed that all participants are actively involved in various national and international research projects; they all have experience of either working or studying abroad; they all teach at least some courses in English. Three scholars at the time of the interview were working both in a Russian and a European university. In general, the interviewees may be called typical representatives of contemporary academia: they are multilingual speakers who use ELF in their professional communication and publish their research mostly in English.

Interviews

With each participant I conducted face-to-face interviews in Russian, although almost in every interview the participants used code-switching inserting English words and expressions into their speech. The interviews were audio-recorded and transcribed. The excerpts included into this paper were translated

² Habilitation is the highest post-doctoral degree in Russia conferred for a habilitation thesis. It is approximately equivalent to German Doctor habilitatus.

into English by the author.³ The interviews lasted from 45 to 95 minutes. The first part of the interview was semi-structured, the second part was discourse-based.

Semi-structured interviews

I chose semi-structured interviews as the main interview type because they allow us to explore writers' experiences with research writing and their beliefs about disciplinary writing conventions (Harwood & Petrić, 2012; Kaufhold & McGrath, 2019). I used an interview protocol to ensure the comparability of results. The questions in the protocol contained many probes to elicit a deeper discussion on topics significant for the study (Part of the interview protocol related to this study is given in Appendix A). In the interview, I allowed deviations from the guide to guarantee that any issue emerged in the narratives could be discussed.

Taking into consideration the fact that the participants may have never heard the term *epistemic stance*, I briefly explained to each interviewee what epistemic stance means and gave them two definitions of epistemic stance to read: the classical, given by Coates (1987) and the one by Biber et al. (1998); the latter was used in this research (see Appendix B). To facilitate a better understanding of how epistemic stance can be expressed in texts, I provided examples with the modal *might*, the verbs *seem*, *argue*, *claim* and *suggest*. This ensured that all interviewees interpreted epistemic stance in the same way.

Discourse-based interviews

Semi-structured interviews were followed by discourse-based interviews (DBI). With this method, developed by Odell et al. (1983), the researcher first conducts a text analysis and then interviews the authors to find out their reasoning for using or not using a particular linguistic element. DBI have been successfully applied in linguistic studies that aimed at revealing writers' intentions to use a particular linguistic expression and their general beliefs on how the text should be written (Blakeslee & Fleischer, 2019; Harwood, 2009; Lancaster, 2016).

I chose the DBI format to make the discussion on disciplinary norms of epistemic stance expression more focused. Prior to the interview, I analysed the texts that the participants provided for analysis and identified all epistemic stance expressions that the authors used. Then I selected two or three excerpts from the texts to discuss during DBIs. All the selected excerpts contained at least two epistemic stance expressions that were most typical for the particular text. I highlighted epistemic stance expressions in the texts and showed the texts to the participants. In every case, I asked the interviewee to explain the reasoning for using a particular stance expression. I also tried to elicit a deeper discussion of disciplinary norms asking if the usage and/or the reason for the usage was common in the discipline the text belonged to. The passage from a participant's text and the excerpt from the interview discussing the passage presented below give an idea of how the DBI were conducted:

Excerpt from the paper selected for the interview:

If those who managed to leave those contexts are well within the margins of common attitudes accepted in Western Europe [...], one might suggest that the context matters much more than individual opinions. The democratic orientations of the country of origin also make a contribution, so plurality of opinion may be another pillar for egalitarian views ...

Interview excerpt discussing the text:

[1] ***Why do you soften your statements here?***

Because I have a very specific sample here, I understand that it might not be great. [...] It's as if I don't believe myself that it's the final truth. And I intentionally show this.

³ English words and expressions that the interviewees used in their speech in the translation are given in italics

Is this a common, widespread strategy in sociology?

It depends. There are people who do vice versa, who hide everything.... (Soc3)

Researcher's impact on the interviews

From a post-modern constructivist perspective, a research interview is a site of social interaction where the meanings and ideas are co-constructed by the interviewer and interviewee (Atkinson & Silverman, 1997). The personality of the interviewer, his/her beliefs and opinions may significantly influence the interview flow (Holliday, 2007). Since I have been working at the university for more than 15 years in an administrative position, I was acquainted to some extent with all the participants. Hence, the interviews I conducted may be called 'acquaintance interviews' (Garton & Copland, 2010), which means that the interviewer and the interviewee may have some shared experiences that can influence the narratives.

In the interviews some topics related to our common experience did emerge. Most often, these were references to the university environment. For example, the participants mentioned the university requirements to publish in English, the system of financial stimulus, the names of other people working at the university. All this suggested that I was on the same wavelength with the participants and they did not have to explain many things that would have been explained to the outsider. In general, the fact that I was acquainted with the majority of the participants created the atmosphere of trust and allowed us to discuss some topics in more detail.

Data analysis procedure

When the interviews were transcribed, I invited a colleague holding PhD in linguistics to analyse the interviews. We independently read and coded the transcripts to identify all interview parts related to the discussion of disciplinary norms and methodological paradigms. After that all discrepancies in the independent coding were compared and discussed. Mostly they were the cases noticed by one annotator but ignored by the other.

Sometimes it was impossible to assign the excerpt to one category. For example, a participant answering the question on disciplinary norms started to speak about the methodological paradigm:

[2] Talking about epistemic stance, what is accepted in sociology? How are the papers written?

Well, here, I believe there's a difference in qualitative and quantitative studies, a very clear difference. (Soc4)

We agreed that all cases that might be interpreted as belonging to both categories would be included in each category.

Results**Participants' Disciplinary Affiliation**

To discuss the perceptions of disciplinary norms and the norms of methodological paradigms in research writing, it was important to learn which disciplines the participants affiliate themselves with and which methodological paradigm – qualitative and/or quantitative – they use in their studies. The interviews revealed that there was no direct connection between the departmental affiliation and the discipline each scholar associates themselves with. All the participants could be grouped into two categories: (1) scholars working in a single discipline – 10 participants; (2) multidisciplinary scholars – 8 participants. It is worth noting that several participants who do research in one discipline narrowed their affiliation to one or more

sub-fields, sometimes considering them interdisciplinary. For example, an interviewee (His3), who calls herself “a historian to the core,” explained that she was doing economic history, environmental history, technological history that are “absolutely multidisciplinary and even marginal [fields]”.

In some cases, the multidisciplinary scholars found it difficult to identify the dominant discipline they work in:

[3] How would you define your research interests? Are they in one discipline?

It's hard to single out one discipline. I'm applying mathematical methods to social sciences. It's political science, it may be sociology at the intersection of social psychology [...]

It's important for me to know so that we could discuss one discipline or a group of disciplines

Well, I could talk about sociology, political sciences, computational linguistics.

What field does the paper you gave for analysis belong to?

In Scopus, it's communication, media communication research. (Soc1)

This fragment demonstrates an interesting fact: the interviewee does not name the discipline the text for the analysis belongs to among the disciplines she affiliates herself with. A similar situation happened in the interview with the representative of the department of public administration. The interviewee admitted that although she was always considered a political scientist by the research community, she affiliated herself with public administration and public policy. When we started discussing disciplinary norms of research writing in public administration, it turned out that the paper she provided for the analysis was published in a journal in education. This suggests that the question of disciplinary affiliation is not always easy for the participants. Information on the participants' departmental and disciplinary affiliation is provided in Table 1.

As can be seen, many scholars in the sample either view themselves as multidisciplinary researchers or do interdisciplinary studies within one discipline. This seems to reflect present-day academia where more and more scholars opt interdisciplinary solutions (Bamber et al., 2012) and do not associate themselves with a single disciplinary field (Graff, 2015). This points to the importance of studying the perception of disciplinary norms of writing by scholars who write interdisciplinary research and/or research in several disciplinary fields.

Interviewees' Perception of Disciplinary Norms

The specificity of disciplinary writing in general and epistemic stance expressions in particular was acknowledged by many participants. The narratives of multidisciplinary scholars contained observations on the differences between disciplines. As one interviewee put it, “I noticed long ago that the language in the disciplines is totally different” (Soc5). Further in the interview, she provides details:

[4] I can draw you a scale how it'll be in different disciplines. On the one side there will be absolute hedging, on the other side – absolute certainty [...] I think sociologists, more than anyone else, can express their view in an evasive manner, stating that something seems most likely or possibly. [...] Political scientists are more straightforward, more certain. On the whole, the language is more assertive, as if one is writing a report [...] Institutional economists are somewhere between economics and sociology. I think it's more like in sciences: strict to the numbers, a very neutral and dry language. No hedging there. Political scientists can often use dead metaphors, and even such figures of speech as this data equips us with. You can seldom see this in sociology, and almost never in economics” (Soc5).

The participants who work in one discipline used the phrase ‘in my/our discipline’ quite often. One interviewee articulated the idea that a scholar needs “to write in the conventions of your discipline” (Man1), recognizing the existence of disciplinary norms. Further in the DBI, she described the disciplinary norms of epistemic stance expression:

TABLE 1
Participants' Disciplinary Affiliation

	<i>Department</i>	<i>Disciplinary affiliation</i>	<i>Discipline of the paper for the analysis/methodological paradigm</i>
Soc1	Sociology	Sociology with social psychology; Media studies; Political Science; Computational linguistics, Communication	Communication/qualitative
Soc2	Sociology	Cultural Studies, Social Art History, Sociology of Art, Anthropology of Art	Cultural Studies/quantitative
Soc3	Sociology	Sociology	Sociology /quantitative
Soc4	Sociology	Sociology	Sociology/qualitative
Soc5	Sociology	Sociology, Political Science, Social Anthropology, Demography, Economic Geography.	Economic geography, Political Science/mixed method
PolS1	Political Science	Political Science	Political Science/qualitative
PolS2	Political Science	Political Science, Public Law	Public Law/quantitative
PolS3	Political Science	Political Science, International Relations	Political Science/qualitative
PolS4	Political Science	Political Science	Political Science/qualitative
PolS5	Political Science	Political Science	Political Science/qualitative
His1	History	History	History (Legal History) /qualitative
His2	History	History	History/qualitative
His3	History	History	History (Environmental history)/qualitative
His4	History	Communication, Art History, Literary Studies	Literary Studies/qualitative
Man1	Management	Human resources development (interdisciplinary research – management, education, applied psychology)	Human resources development/theoretical
Man2	Management	Applied Economics	Applied Economics/quantitative
Man3	Management	Cultural Studies, Business Administration	Management: Entrepreneurship and Cultural/quantitative
PublAd m	Public Administration	Public Administration, Public Policy, Political Science	Education/mixed method

[5] *Because in my discipline, it's the norm. Because [...] in the conventions of my discipline, [...] if you want to intensify something, intensify it by your argument, not by certainty. Give facts instead of using strong, strongly suggests. Give a fact that's strong so that everyone understands that it's strong.* (Man1)

It needs noting, however, that in some cases when the interviewees were talking about the norms their texts should confirm to, these norms seemed to be not the disciplinary norms per se, but the conventions of a particular journal within the discipline. One scholar expressed a radical opinion that “there’s no discipline” and consequently, no disciplinary norms because “these [journals] are different ways of writing, completely different approaches, different epistemology” (Soc3). Further in the interview, she explained that she and her colleagues “really frame each paper according to the journal.” Similar opinions were expressed in other narratives: the interviewees said that they had “to look not at the discipline but at a specific journal” because today “the field of study is not the priority anymore, as every journal has its own thing that you need to recognize and fully comprehend to get it right” (PublAdm). It is interesting that the scholars cited above describe the process of working out the norms. They do not rely on writing guidebooks on disciplinary writing or pre-existing knowledge taught in research writing courses; instead,

they try to discover the norms by analysing journals. Such an approach, which, from the interviewees' perspective, gives fruitful results, cast doubt on the idea that every discipline has clear norms of writing shared by the disciplinary research community.

The idea that disciplines do not differ, at least regarding epistemic stance expression, was expressed by one multidisciplinary scholar who believed that the researcher "should not hide behind these words [epistemic stance expressions]" and the text should be "as clear and unambiguous as possible":

[6] *Regardless [of whether the field is literature, history, or arts]. A text [...] rhetorically must strive to avoid any kind of ambiguity or alternative interpretation (His4).*

Reflecting on the norms of epistemic stance expression in a particular discipline, some interviewees clearly formulated them. For example, a historian said that "in history you can't show any uncertainty [...] you should show your certainty, give arguments, and if you talk about 'possible', then go and read and find evidence" (His1). In some cases, the comments were rather vague: "It seems to me that in political science [...] you can be a little more expressive or a little less expressive" (PolS3). Some interviewees pointed to significant variations of norms within one discipline:

[7] *In terms of epistemic stance expressions, how are papers in sociology written?
Very differently. The fact is that sociology isn't homogeneous, it grows in various directions ... and all these genres ... they all have different standpoints. (Soc3)*

In many participants' narratives, the idea of disciplinarity was closely connected with the methodological paradigm the paper fits in. Sometimes, the interviewees, irrespective of whether they affiliate themselves with one or more disciplines, when asked about disciplinary norms, started to talk about quantitative and qualitative distinctions. The excerpt below vividly illustrates this (see also [2]):

[8] *What is accepted in cultural studies, I mean, epistemic stance expressions?
Well, you can write that it might be like this or it might be like that. The meaning is in your interpretation. And quantitative research is closely connected to the numbers that are the evidence...
You started talking about the difference between qualitative and quantitative texts
Yes, because they are written differently (Soc2).*

The fact that the participants raise the topic of methodological paradigm themselves suggests that this issue is important for them and that from their perspective, disciplinary norms cannot be separated from the norms of the methodological paradigm. Sometimes it was very difficult to distinguish whether the interviewee was talking about the discipline or the methodological paradigm. For example, one scholar who does only quantitative studies in one discipline, used in her narrative the phrase 'in my field' which may be interpreted as referring to the quantitative methodological paradigm within the discipline:

[9] *When you write about the interpretation of your results, there are [epistemic stance expressions], I tell my students that in our field [...] in a quantitative paper, you just give facts. You just write 'we got these valid results', you can't write I believe we got these valid results... (Man2).*

In general, as the analysis showed, the disciplinary specificity of epistemic stance expression is recognized by the majority of the participants. However, only a few participants managed to formulate specific disciplinary characteristics. It needs noting that in their narratives, disciplinary norms of epistemic stance expression were often inseparable from the specificity of the methodological paradigm.

The Role of Methodological Paradigms in Research Writing

The interviews showed that 13 out of 18 participants conducted both quantitative and qualitative studies. It implies that the majority of the interviewees have experience of writing papers in different methodological paradigms. Often, as it has been shown earlier, the participants themselves raised the topic (see [2], [8]); in rare cases I asked about the difference in writing qualitative and quantitative papers. In general, the interviewees seemed to be comfortable at discussing the norms of epistemic stance expressions adopted in a certain methodological paradigm, speaking at length and providing examples (see Appendix C). There was only one scholar, a qualitative researcher, who refused to describe the differences between the two methodological paradigms on the assumption that qualitative studies “are a different planet” that she cannot discuss since she “know[s] only quantitative” (Man2).

Generally, from the participants’ view, qualitative and quantitative studies are written differently with respect to epistemic stance usage because these two methodological paradigms are based on different philosophical foundations: quantitative studies produce knowledge that can be generalized and reproduced while qualitative studies allow no generalisations as the knowledge is based on researcher’s subjective interpretations. As a consequence, qualitative research implies more epistemic stance expressions that soften the meaning, while quantitative research is based on firm evidence and allows almost no mitigation. This idea is well articulated by a sociologist who does both qualitative and quantitative studies:

[10] *This is a question of the representativeness of the results. Because in quantitative studies [...] if everything is done correctly: correctly selected, correctly analysed, we can say that our results are objective and they reflect how the things are. This is a quantitative researcher’s stance. The stance of qualitative researchers is that there’s nothing objective there, only subjective. I have my version, you have your own, others have theirs, and this version is produced in the collaboration, in the interaction. [...] These are methodological bases that a priori set linguistic things”* (Soc4).

In other interviews, respondents developed similar ideas. They characterized the qualitative paradigm as being based on researchers’ “subjective perception” and having “no absolute truth” (Soc1) where “nothing can be stated with certainty” since everything “depends on the researcher’s interpretation” (Soc5). Speaking about quantitative studies, they stressed that since the new knowledge should be reproducible, the texts are written “in a maximum detached manner” with “neutral expressions”. Such phrases as “*I think that this means or perhaps this means*” are never used (Soc1). As one sociologist put it,

[11] *The language will be different: different verbs, vocabulary, different everything. Different words.* (Soc5).

In one interview, the scholar described the difference of texts written in the two methodological paradigms in terms of researchers’ personal characteristics saying that “quantitative scientists are different people, they like everything to be very clear, very straightforward” while “qualitative scientists [...] are softer, more cautious” (Man3). This implies that quantitative texts use less epistemic stance markers than qualitative texts.

It is interesting that the interviewees’ perception of the use of epistemic stance expressions in texts written in different methodological paradigms contradict the results reached by Hu and Cao (2015) who found that epistemic stance markers (hedges and boosters) were more frequently used in quantitative research articles. There was only one respondent whose ideas were in line with Hu and Cao’s findings. She cast doubts on the “seemingly evident fact” that quantitative studies were very straight, rigid and without any mitigation:

[12] *It’s not true. What I see is that the most serious quantitative scientists with profound knowledge of statistics are, in fact, the most cautious people. Because they know that in quantitative research not everything is evident, there’s no final truth because much depends on the quality of the data,*

quality of the analysis. And they express their position very cautiously (Soc4).

Despite some discrepancies in the perception of how the texts in a certain methodological paradigm are written, the majority of the respondents not only agreed that the texts in different methodological paradigms were written differently; their narratives implied that these differences might be stronger than disciplinary differences. This idea is conveyed, for example, in the interview excerpt where a scholar speaking about writing in political science, used the broader term ‘social science’ implying that the distinction between qualitative and quantitative research referred to all social sciences irrespective of the particular discipline:

[13] For political scientists, social scientists, [...] when we do quantitative research, we have very stringent methods of data analysis which allow us to say with some probability, that it's like that, you can straightforwardly write this is like that with a probability of that (PolS1).

There were other cases when interviewees in their narratives pointed to similarities of texts written in one methodological paradigm across different disciplines. One sociologist noted that in qualitative research “it doesn’t matter if you are a sociologist, a historian or an anthropologist [...] the power of the method is the common focus on social reality which we interpret in some way” (Soc4). Another sociologist described quantitative research in a very similar way, saying that “it doesn’t matter if a biologist, a chemist, a social physiologist, or a political scientist is writing [...], no interpretations, no ambiguity”. (Soc5). (A larger fragment is given in Appendix C). It is important to mention that the same respondent (Soc5) in her narrative provided a rather detailed description of the disciplinary differences in epistemic stance expression [4]. This implies that in the scholars’ view, the disciplinary and methodological norms exist parallel to each other.

This view, however, was not shared by all the participants: two interviewees do not believe that differences in epistemic stance expression between qualitative and quantitative studies exist. One scholar, a political scientist, said that regardless of the methodology adopted in the paper, “if there’s an empirical part, it seems that it must be drier and less authorial” (PolS3). Another participant was more hesitant talking about the differences: “Well, in general, no differences, for the most part, I think no” (Man1).

Discussion and Conclusions

The scholars who participated in the study are multilingual researchers working in ELF settings and publishing their research mostly in English. An important characteristic that many participants share is that they do research either in different disciplines or in different interdisciplinary sub-fields within one discipline. Sometimes the disciplines the interviewees affiliate themselves with are so varied that they failed to mention all of them when answering the question about their affiliation. Simultaneous affiliation with several disciplines can be viewed as an indication of the trends happening in academia today (Graff, 2015). Some interviewees say that they write on certain themes, not in a certain discipline; for some scholars the methods they use rather than the discipline seem to be play the main role in their research writing.

To explore L2 users’ research writing practices and their perceptions of disciplinary and methodological norms, the study focused on the discussion of the norms of epistemic stance expression. The definitions of epistemic stance presented during the interviews ensured that all the participants understand epistemic stance in a similar way. The reference to texts in DBI allowed us to discuss particular text excerpts rather than have a general conversation about epistemic stance expression in a particular discipline and methodological paradigm. The choice of epistemic stance was effective as it gave the conversation a focus and allowed me to approach the issues of the norms that influence scholars’ research writing without addressing them directly.

The analysis of the interviews showed that in their narratives, the participants recognized the existence

of disciplinary norms. Some interviewees not only formulated the norms in a particular disciplinary field but also classified the disciplines in terms of epistemic stance expression. It is necessary to note that those participants who work in multiple disciplines and publish in journals in different disciplines seem to hold different disciplinary norms at the same time and write their texts being conscious of the discipline their research belongs to and the journal they aim to publish their paper in. Although some participants rejected the existence of disciplinary norms, the majority of the interviewees recognized them.

However, in many cases, the participants could not discuss disciplinary norms separately from the norms of the methodological paradigm: the phrase ‘in my discipline’ was immediately followed by a discussion of specificity of writing qualitative and quantitative papers. As if anticipating my questions, they themselves turned to the distinctions between qualitative and quantitative research writing, which reveals that the issues of specificity of writing in a certain methodological paradigm are very sensitive for the informants participated in the study. Another indication of the significance of the methodological paradigm is that often in their narratives the scholars discussed the topic in detail providing multiple examples. Many participants intuitively formulated the norms of epistemic stance expression in qualitative and quantitative writing, although these norms do not seem to be described in the writing guides⁴. The difference between the participants’ perception of methodological norms of epistemic stance expressions based on their experience of reading and writing research texts and the results of some studies (Hu & Cao, 2015; Liu & Tseng, 2021) is a promising field that can be addressed in further studies.

The fact that the participants were talking simultaneously about disciplinary norms and norms of the methodological paradigm points to a complex interrelation of these two sets of norms on research writing. On the one hand, the respondents either feel or know from their own experience that the texts in different disciplines vary in terms of epistemic stance expression. On the other hand, they talk with a rather high degree of certainty that the texts from different disciplinary fields written in the same methodological paradigm have more in common than the qualitative and quantitative texts from one discipline. This highlights the importance of studying linguistic and rhetorical variations of texts both across and within disciplines paying special attention to the methodological paradigms the texts belong to.

The interview analysis showed that the methodological divide was clearly presented in the narratives of representatives of social sciences. This might be explained by Bernstein’s theory of disciplinary knowledge structures according to which social science disciplines utilise different languages and procedures of inquiry combining elements of the sciences and the humanities (Bernstein, 1999). Although the comparison of writing practices used by scholars working in social sciences and in humanities was out of the scope of the research, the interview analysis revealed that even historians, who did mainly qualitative research, recognized the differences in papers written in qualitative and quantitative paradigms. It may be suggested that the awareness of the differences would increase as quantitative methods of analysis are getting more and more accepted in the humanities. In general, for the majority of scholars participating in the study methodological norms seem to be a significant factor to consider while writing research texts. This conclusion is in line with the results of some recent studies that include methodological paradigm into their focus (Cao & Hu, 2014; Hu & Cao, 2015; Kauffhold & McGrath, 2019; Liu & Tseng, 2021).

The conclusions presented in the paper shed some light on the discussion of the shapers of L2 writer’s publication practices. However, they are based only on the analysis of the participants’ views. Further studies on linguistic variations within disciplines and similarities across disciplines regarding the methodology of the paper and the journal the paper published in are necessary to confirm or reject them. Such studies may give useful insights into the language use in contemporary research writing and have practical implications for EAP and ERPP teachers and course designers. If significant variations in writing qualitative and quantitative papers are found, this might lead to the development of teaching materials addressing, along with disciplinary differences, writing conventions adopted in a particular methodological paradigm. Courses focusing on both disciplinary specificity, variations within disciplines and similarities across disciplines may help L2 users who need research writing instruction to be more

⁴ The lack of referencing materials devoted to the differences in writing qualitative and quantitative research was regarded as a problem by one interviewee who had been specially looking for such material.

successful in getting their texts in English published because today in academia, as one interviewee put it, “we use certain methods, write on certain themes and end up publishing in different disciplines” [Soc1].

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Appendix A

Interview Protocol

Background questions:

- How old are you?
- What is your education?
- What languages do you speak? (please, estimate the level)
- Do you have any experience studying or working abroad? Give details.
- How many publications do you have?

Questions about English

- How much do you use English in your professional sphere (teaching, doing research, writing)?
- In what language do you publish your research? Why?
- What is the approximate number of publications in Russian, in English, in other languages?

Questions about disciplinary affiliation and research methodology

- What is the main sphere of your research interest?
- Can you name the discipline(s) your research belongs to? (Probes: If we use subject areas, e.g. in Scopus, what area it would be? Is it one discipline or multidisciplinary field? If more than one discipline is named: in which discipline do you feel most confident as a writer? Choose the discipline you know the best that we could discuss).
- Have you always done your research in [discipline]?

Questions about disciplinary norms and the norms of writing in a certain methodological paradigm

- Are there any rules (norms) of how a paper in [discipline] should be written in regard to epistemic stance expression? What is accepted, what is not accepted? (Probes: How are claims usually presented? Should claims be enhanced, downtoned or neutrally presented? If you had to explain the norms of expressing epistemic stance to students, how would you formulate them? In which parts of the paper the writers usually express epistemic stance? If the interviewee affiliates themselves with more than one discipline – are there any differences in epistemic stance expression in [discipline1] and [discipline2]?).
- Are there any differences between qualitative and quantitative papers in [discipline] in regard to epistemic stance expression? (Probe: Please, explain/give examples)
- How do you generally express your epistemic position in texts? (Probes: Is there any difference in the way you present your claims in different parts of the paper? How do you give your argument: clearly, with certainty or tentatively, leaving some space for alternative interpretations?)

Appendix B

Information on Epistemic Stance Presented to the Participants

Definitions of epistemic stance

Traditionally, epistemic stance and the closely related notion of epistemic modality have been defined in terms of the speaker's commitment to the truth value of the proposition (Lyons, 1977; Palmer, 1986). One of the typical definitions made within a formal logic framework is that given by Coates:

Epistemic modality can be described as concerned with the speaker's assumptions, or assessment of possibilities, and, in most cases, it indicates the speaker's confidence or lack of confidence in the truth of the proposition expressed (Coates, 1987, p.112).

The definition used in this research is developed by Biber et al. (1999, p. 972): epistemic stance expresses a writer's "certainty (or doubt), actuality, precision or limitation", or indicate "the source of knowledge or the perspective from which the information is given."

Appendix C

Interview Excerpts (Discussion of Methodological Paradigm)

Excerpt 1

- **You said there are differences in how qualitative and quantitative papers are written.**

- Yes, yes

- **Can you name them?**

- First of all, it's the structure of the article: it is very stringent in quantitative research, it is the same, it doesn't matter if a biologist, a chemist, a social physiologist, or a political scientist is writing, the structure would be the same. Introduction, as a rule, describes the motivation for the study, then there would be a theoretical part with some conceptualisation. It's twice as big as the Introduction. Then they give aims, objectives, and hypothesis. And after that you give the statistics, the calculations, or test the model. And then you write discussion and conclusions.

- **And in qualitative?**

- In qualitative studies the structure is different. Because they insert examples, and you can find examples even in the Introduction. Just as a proof that it's an interesting phenomenon that is worth studying. And empirical elements may appear throughout the article. And the main argument is given at the very beginning. Or at the very end because they can be written like an essay. But there are no strict models, no hypothesis, there are suppositions in qualitative studies. That is why the papers may be longer. Because there are quotations; and sometimes the whole texts are inserted. By the way, papers in translation studies and intercultural communication are very similar to how qualitative sociologists and social psychologists write. There are no tables there, for example. And in quantitative studies there is always some illustrative material, some charts. And the language is different. In qualitative, there are nuances of meaning, various connotations, some additional meanings that a person puts into the words. There's nothing like that in quantitative research, there are words that are very clear, very strict. There would be special verbs, adjectives that would highlight that the numbers, the statistics is valid, is persuasive. There are no interpretations, no ambiguity there.

- **You are talking about the results section. What about discussion, conclusions? Are they written in the same manner?**

- Yes, absolutely. From the description of statistics and up to the very end, there's this unambiguous interpretation, no evasive language, but in qualitative [studies] it's appropriate because nothing can be stated with certainty: it depends on the researcher's interpretation. The language will be different: different verbs, vocabulary, different everything. Different words (Soc5)

Excerpt 2

From your point of view, in communication studies are there any norms of how the author's position, their epistemic stance should be expressed?

Yes, and there are many debates around it. Well, in *communication* there are different fields and representatives of these fields might even not talk to each other, because they are different. If we speak of *communication studies* that are written in the qualitative paradigm – by the way, my own book is written in this paradigm, when I conducted interviews and did participant observation – they stress that from their point of view there's no absolute truth because there's always subjective perception. And the researcher's personality plays an important role there, it influences everything you have discovered, and you can't hide behind 'we' or impersonal constructions. Everything should be written from the first person: I went, I did, I consider. And if you have a certain position, a certain bias, you have to state it and say, for example "I support LGBT rights" or "I am against the propaganda of homosexuality" And you write your texts from this position. In more stringent quantitative studies we try to produce knowledge that is reproducible. So firstly, we follow the procedure and secondly, we write in a maximum detached manner, we try to find neutral expressions. And if we find something, we write that this is a valid result, we can be certain of it. If

some indicators are not that good, we write ‘our research *suggests or gives suggestive evidence*’. All these expressions we’ve been talking about - this might indicate [laughter]

In quantitative studies?

Yes, it is acceptable in qualitative studies. But we never write *I think that this means or perhaps this means*. Everything is impersonal, but we indicate the degree of certainty. We say that our results don’t allow us to be 100% certain.

You mean that if you use, for example, *might*, you show some degree of uncertainty based on the statistics, the results?

Yes, and if, for example, some of your indicators are not that good, and you write something like *our results surely demonstrate*, the reviewers would say that you have an *overstatement* here, and that it’s not very good.

So it’s not your epistemic position, it’s not that you are uncertain; the results have shown some uncertainty

Yes, absolutely

Contrary to the qualitative analysis

Yes, where you show your position, where there should be your personal position, your interpretation. (SOS1)