

**The Linguistic Injustice Debate: A Comparative Study of Literature
Review Writing Practices**

Anoud Abusalim, BAs, MA, Rhetoric and Composition

September 2022

This thesis is submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy

Department of Educational Research

Lancaster University

UK

Abstract

Considering the growing role of the English language as the default academic research language, English for Research Publishing Purpose (ERPP) scholarship often debated the claims of linguistic injustice voiced by some English as an additional language (EAL) scholars. Yet, these claims remain unsubstantiated because of the lack of comparative studies examining the research writing practices of EAL and native English-speaking (NES) scholars. The present comparative study contributes to the expanding ERPP literature by focusing on the experiences of EAL and NES scholars, based outside the Anglophone sphere in the United Arab Emirates, in preparing and writing the literature review (LR) section in a research article (RA) across social sciences and humanities (SSH) and STEM disciplines.

Employing qualitative inquiry, this study investigates the ERPP practices of EAL and NES scholars by examining their linguistic and disciplinary practices and challenges to offer a meaningful understanding of their research writing practices, which transcends the limitations of the linguistic binary. The study's data consists of 22 interviews with 11 EAL and 11 NES scholars in SSH and STEM disciplines. The study's findings reveal that EAL and NES scholars share similar ERPP practices and challenges, but these challenges are different across SSH and STEM disciplines. The study offers new perspectives, for ERPP practitioners, about addressing the global disparities in academic publishing by emphasising the necessity of understanding the impact of disciplinary practices on research writing rather than focusing on the simplistic linguistic binary.

Table of Contents

Abstract	i
List of Abbreviations	v
List of Figures and Tables	vi
Acknowledgements	vii
Dedication	viii
Publications derived from work on Doctoral Programme	x
Introduction and Background	11
1.1 Background	13
1.2 Disparities in Research Writing	14
1.2.1 The core and periphery distinction.....	16
1.3 ERPP and Challenges with the English Language	17
1.3.1 The linguistic injustice debate.....	18
1.3.2 Different perspectives on linguistic injustice	19
1.4 The Research Problem and Context	22
1.4.1 The lack of comparative research on linguistic injustice.....	22
1.4.2 The limited comparative studies on literature review writing and disciplinary writing conventions	23
1.4.3 Methodological limitations	24
1.4.4 The limited comparative studies on EAL and NES scholars	25
1.4.5 The limited studies on Arabic-speaking EAL scholars	26
1.5 Aims of the Study	27
1.6 Research Questions	28
1.7 Structure of the Thesis	29
Chapter 2: Literature Review	30
2.1 Chapter Introduction	30
2.2 Overview of English for Research Publishing Purposes (ERPP)	31
2.2.1 English as the research lingua franca.....	34
2.2.2 Journals and the English language.....	36
2.2.3 English and its different users	37
2.2.4 ERPP challenges for EAL and NES scholars	38
2.2.5 EAL scholars and ERPP challenges	39
2.2.6 NES scholars and ERPP challenges.....	40
2.2.7 NES Scholars in Arab universities in the Arabian Gulf countries	41
2.3 ERPP Scene in the Arab World	42
2.3.1 Overview of Arab universities	42
2.3.2 Arabic-language journals	44
2.3.3 English language in the Arab world	45
2.3.4 Arabic-speaking EAL scholars	46
2.3.5 Arabic-speaking scholars' research drivers	46
2.3.6 Arabic-speaking EAL scholars and challenges with writing in English.....	48
2.3.7 Arabic-speaking EAL social scientists and researching local issues	50
2.4 The Research Article and the Literature Review Section	51
2.4.1 A brief history of the research article (RA).....	51
2.4.2 The rhetorical development of the RA.....	52
2.4.3 The literature review section in an RA.....	53
2.4.4 Use of the introduction and LR headings interchangeably	54
2.4.5 LR reading processes, strategies, and writing challenges	55
2.5 Chapter Two Conclusion	59
Chapter 3: Theoretical Framework	61
3.1 Theoretical Framework Development	62
3.2 Writing and Disciplinary Discourses	65
3.2.1 Disciplinary writing	66
3.3 Academic Discourse Communities	67
3.3.1 Audience and the academic discourse community	70
3.3.2 Social interactions in writing	71
3.4 The CaRS Model	73
3.4.1 The moves outline	75
3.4.2 Deconstructing the CaRS model from the periphery and semiperiphery	76
3.4.3 Centrality claims outside the Anglophone sphere.....	77

3.5 A Bernsteinian view: Discourses and Knowledge Structure	78
3.5.1 Why is Bernstein's work relevant to this study?	78
3.5.2 Vertical and horizontal discourses and their knowledge structures	79
3.5.3 Hierarchical knowledge structures	81
3.5.4 Knowledge circulation in the vertical and horizontal discourses	82
3.5.5 Repertoire and reservoir and social relations in a horizontal discourse	82
3.5.6 Development in hierarchical and horizontal structures	83
3.5.7 Strong and weak grammars	84
3.5.8 The gaze in the knowledge structures	86
3.5.9 The Bernsteinian view of the disciplines in this study	87
3.6 Local Knowledge	88
3.6.1 The global discourse communities	89
3.7 Theoretical Framework Summary	91
3.8 Chapter Three Conclusion	92
Chapter 4: Research Design and Methodology	94
4.1 Research Design	94
4.1.1 The study's background	94
4.1.2 Developing the Research Design	95
4.2 Philosophical Underpinnings	97
4.3 Reflexivity	98
4.4 Pilot interview design	99
4.5 Participants	99
4.6 Data Generation	101
4.6.1 Semi-structured interviews	102
4.7 Data Analysis	104
4.7.1 Inductive thematic analysis	105
4.7.2 Transcribing and coding the interviews	106
4.7.3 Searching for themes	110
4.8 Research Design Trustworthiness and Authenticity	111
4.9 Ethical Considerations	112
4.10 Context of the Study	113
4.10.1 The linguistic landscape in the UAE	113
4.10.2 The semiperipheral university	114
4.11 COVID-19 Impact on the Study	115
4.12 Chapter Four Conclusion	115
Chapter 5: Research Findings	116
5.1 Participants' Familiarity with the Literature	116
5.2 Literature Search Protocol	118
5.2.1 Literature review (LR) search protocol for EAL and NES scholars	118
5.2.2 LR search protocol in SSH and STEM disciplines	120
5.2.3 Summary of LR search protocol	121
5.3 Literature Review (LR) Reading	122
5.3.1 Literature reading for EAL and NES scholars	122
5.3.2 LR reading strategies in SSH and STEM disciplines	123
5.3.3 LR reading practices and purposes in SSH and STEM disciplines	125
5.3.4 Summary of LR reading strategies, practices, and purposes	128
5.4 Literature Review (LR) Writing	128
5.4.1 LR Writing for EAL and NES scholars	128
5.4.2 LR writing practices in SSH and STEM disciplines	131
5.4.3 Audience awareness in LR writing in SSH and STEM disciplines	132
5.4.4 Summary of LR writing	133
5.5 ERPP Challenges	134
5.5.1 Writing about local issues in SSH disciplines	134
5.5.2 Limited access to Arabic-written resources	135
5.5.3 Using local literature in SSH disciplines	135
5.5.4 Writing about local issues in STEM disciplines	137
5.5.5 Summary of ERPP challenges	138
5.6 Chapter Five Conclusion	138

Chapter 6: Discussion	141
6.1 Overview: “It Is Not What They Write; It Is How They Write and Read”	141
6.2 LR Search and the Disciplines’ Grammars	142
6.3 LR reading and the Gaze	144
6.4 LR Reading and Writing across the Knowledge Structures	146
6.5 The Social Dimensions of LR Writing	147
6.5.1 Identifying the research gap as a social and textual convention	147
6.6 ERPP Challenges	149
6.6.1 Limited resources on local issues	149
6.6.2 Power with(in) the academic discourse community	151
6.6.3 The off-network NES scholars	152
6.7 Chapter Six Conclusion	153
Chapter 7: Conclusion	154
7.1 Overview of the study	154
7.2 Disciplinary Writing Conventions and ERPP Practices	155
7.2.1 Bernstein and ERPP scholarship	156
7.3 The Injustice of the Linguistic Injustice Debate	157
7.4 ERPP Challenges	158
7.5 Limitations	158
7.6 Directions for Future Research	160
7.6.1 More research on semiperipheral universities outside Europe	160
7.6.2 Epistemological racism research	160
7.6.3 More research on the global disparities in knowledge construction	160
7.6.4 More situated writing research in ERPP scholarship	161
7.6.5 Relevance of disciplinary writing for ERPP teaching	162
References	163
Appendix One: Interview Guide	175
Appendix Two: Themes Development	176
Appendix Three: Ethical Approval Forms	178

List of Abbreviations

CaRS	Create a Research Space
EAL	English as an Additional Language
ERPP	English for Research Publishing Purposes
LR	Literature Review
NES	Native English Speaking
NSF	National Science Foundation
SSH	Social Sciences and Humanities
RA	Research Article
STEM	Science, Technology, Engineering, and Math
TRS	<i>Transactions of the Royal Society</i>

List of Figures and Tables

List of Figures

Figure 3.1	Aristotle’s Rhetorical Appeals
Figure 3.2	The Rhetorical Situation
Figure 3.3	Swales CaRS Model
Figure 3.4	Discourses in the Bernsteinian View
Figure 3.5	Specialized Languages in Horizontal Discourses
Figure 3.6	Hierarchical Knowledge Structure
Figure 3.7	Strong and Weak Grammars
Figure 3.8	Summary of Bernstein’s View of the Disciplines
Figure 3.9	Overview of the Theoretical Framework
Figure 4.1	Codebook Excerpts from ATLAS.ti
Figure 4.2	Network Excerpt from ATLAS.ti

List of Tables

Table 3.1	Theoretical Framework Key Features
Table 4.1	Datasets Used in Addressing the Research Questions
Table 4.2	EAL Participants in Social Sciences and Humanities Disciplines
Table 4.3	NES Participants in Social Sciences and Humanities Disciplines
Table 4.4	EAL Participants in STEM Disciplines
Table 4.5	NES Participants in STEM Disciplines
Table 4.6	Data Generation Schedule
Table 4.7	Thematic Analysis Steps and Actions
Table 4.8	Establishing Trustworthiness during Thematic Analysis
Table 5.1	Summary of the Findings

Acknowledgements

Writing this thesis during a pandemic was a draining, rewarding, solitary, and powerful journey punctuated by unpredictable ups and downs, which regularly tested and fuelled my resilience. I am particularly grateful for everyone and everything, across my two worlds and multiple languages, that allow me to feel proud of this thesis as I do.

I am thankful for the help received from Malcolm Tight and Gemma Derrick during the early phases of this project and residentials. Much of my time in and away from Lancaster was made better because of the immense support from Paul Ashwin and Alison Sedgwick. My gratitude goes to Ann-Marie Houghton and her valuable presence during the PhD writing days, which brought parts of Lancaster to my computer screen and made the isolated pandemic writing more personable.

I am thankful to my office mates Rachel Hall, Greg Vanderpyl, and Hana Suliman for their support, especially during the remote work period. My friends in Cohort 22: Helen Meek, Rachel Elmslie, and Naureen Rahnuma were and are a source of support and inspiration. I am grateful for the friendships forged during the online PhD study days, and I am practically thankful for Sandra Flynn's support during and outside the study days. My friend Pernille Arenfeldt has offered all kinds of support since the start and reminded me often that this degree is my last big exam.

Finally, I am indebted to my dear friend Abeer Al-Najjar who put up with hours of talking and complaining about the thesis during the lockdown. Having a listening and supporting ear was a gift that made writing this thesis easier. I am thankful for my brothers' unconditional support and my family that put up with me cancelling family meetings to catch up with writing as well as celebrating meeting each deadline. Your support and understanding when I would go on long writing hiatus mean a lot.

Amid the long writing days and nights, I am grateful that my four-legged housemate 'Tadmor' allowed me to finish writing this thesis: Your meows are the soundtrack of this thesis.

Dedication

This thesis is dedicated to the soul of my father. He was the first to encourage me to pursue my dreams and never settle for anything less. He told me on my first day as an undergraduate to aim for a doctorate.

This is for you, Baba. I love you.

Author's declaration: This thesis is my own work and has not been submitted in substantially the same form for the award of a higher degree elsewhere.

This thesis results entirely from my own work and has not been offered previously for any other degree or diploma.

The total word count, including appendices, conforms to the permitted maximum length.

Signature

Publications derived from work on Doctoral Programme

Publications that appear in this thesis

- Abusalim, A. (2021). ERPP practices in the Arab world: One language, different problems. *Journal of English for Research Publication Purposes (JERPP)*, 2(1), 30-61.
- Abusalim, A. (2023). Coloniality and social sciences research: ERPP realities and border thinking in the Arab world. *English for Specific Purposes*, 70, 210-223. <https://doi.org/https://doi.org/10.1016/j.esp.2023.01.002>
- Abusalim, A. (2023, Expected). "Fake it till you make it: Predatory publishing in the Arab World". In Habibie, P. & Fazel, I. (Eds). *ERPP and Predatory Publishing*. Routledge.

Publications derived from work on the Doctoral Programme that do not appear in this thesis

- Abusalim, A. (2020). Being a Gourmet in the Age of Fast Food: Reflective Practices of Excellent Teachers. *Journal on Excellence in College Teaching*, 31(3), 5-27.
- Abusalim, A. (2019). Modern Family or Game of Thrones: Systematic Analysis of Second Language Writing Publications in Web of Science from 2002-2017. [https://puretest.lancaster.ac.uk/portal/en/publications/modern-family-or-game-of-thrones\(21b4b7a2-70f0-4641-98e1-fa840759ce80\).html](https://puretest.lancaster.ac.uk/portal/en/publications/modern-family-or-game-of-thrones(21b4b7a2-70f0-4641-98e1-fa840759ce80).html)

Introduction and Background

*“Knowledge is writing. Knowledge is conventional. Knowledge is contingent”
(Canagarajah, 2002, p. 100).*

Writing is at the heart of academic life and work. Many academics spend their time writing—from writing emails to writing and revising research manuscripts. Research writing and publishing constitute a significant part of the writing done for academic work. It engages more than 7.8 million researchers worldwide (UNESCO Science Report, 2015), taking place in around 17,500 higher education institutions, and it gets disseminated by nearly 2,000 publishers (Lillis & Curry, 2010; Tusting & Barton, 2016). By the end of 2010, approximately 50 million journal articles were estimated to be published since the launch of *the Transactions of the Royal Society (TRS)*, which is considered the first modern academic journal, in 1665 (Atkinson, 1996; Jinha, 2010). During the last decade, research writing and publishing grew between 5 and 6.5% (Johnson, Watkinson, & Mabe, 2018).

By the year 2018, there were about 33,100 active scholarly peer-reviewed English-language journals published by the International Association of Scientific, Technical and Medical Publishers, and these journals publish around three million articles annually (Johnson et al., 2018). For example, up to three million articles and reviews were published between 2016 to 2017 in the Web of Science, which is one of the best-known databases to cover research and publication across the disciplines (Flowerdew & Habibie, 2021), and 98% of these publications were written in the English language (Taşkın et al., 2020). It was estimated that more than 2.9 million research articles were published in 2020 alone (NSB, 2022).

The growth of articles' numbers is also accompanied by the growth of spending on research and development (R&D). According to the National Science Board's (NSB) report (2012), global R&D spending increased from \$522 billion in 1996 to \$1.3 trillion in 2009 (NSB, 2012) to an estimated \$1.9 trillion in 2015 (NSB, 2018). By the year 2018, 87% of research expenditure was concentrated in three regions: East and Southeast Asia (including China, Japan, and the Republic of Korea), which spent 40% of the global research expenditure, followed by North America (27%), and the EU (19%) (UNESCO Science Report, 2021). Recent publishing figures (between 2018 and 2020) estimate that China leads the strongest average growth rate in research outputs, followed by Russian Federation, India, Spain, Italy, Brazil, and Australia, respectively (NSB, 2019; NSB, 2021; UNESCO Science Report, 2021).

Despite the growth of research coming from outside North America and the UK, most academic research is published in English, which is considered the default language for most academic journals (Li & Flowerdew, 2020). For example, by looking at the publishing figures by the end of 2020, it was estimated that there were 50,622 journals listed in both Scopus and Web of Science (WoS) databases (STM Report, 2021). In terms of language, 92.64% of the documents indexed in Scopus are in English, whereas it is 95.37% for the documents indexed in WoS (ibid). Although the tendency of citation indices to include journals that are published in English has been critiqued (Canagarajah, 2002; Monteiro & Hirano, 2020; Shin et al., 2021), scholars who are based outside the Anglophone sphere still publish their research in English. Arguably, many scholars prefer to publish their best research in international, English-language journals (Salager-Meyer, 2015; Swales, 2004). Yet, the participation of EAL scholars in the global research writing and publishing scene does not mean that they experience similar discursive and non-discursive conditions to their NES peers.

1.1 Background

This study investigated how English as an additional language (EAL) and native English speaking (NES) scholars in social sciences and humanities (SSH) and STEM disciplines prepare and write the literature review (LR) section in a research article (RA). The complex reading and writing practices involved in preparing and writing the LR section motivated the study's focus on developing a dynamic, in-depth understanding of the ERPP practices of EAL and NES scholars. Since academic text or publishing activity cannot be studied without considering the "complex globalising practices and systems which influence academic text production in powerful ways" (Lillis & Curry, 2010, p. 10), the study explored how EAL and NES scholars prepare and write their literature review sections in line of their various disciplinary affiliations. The study identified less discussed disparities in research writing that transcend the 'crude' linguistic binary (Hyland, 2016). More specifically, the study's examination of linguistic injustice claims identified critical disparities in research writing related to the different disciplinary writing conventions, and it establishes new ways in which we can address injustice in research writing.

This study responds to a critical need in ERPP scholarship about the necessity of conducting multimethod, comparative studies of EAL and NES scholars' ERPP practices to evaluate or substantiate the claims about the linguistic injustice voiced by EAL scholars who experience the burden of writing and publishing their research in English. In examining linguistic injustice claims as an obstacle in research writing and publishing, the study identified the increasing importance of understanding the disciplinary writing conventions, and how they impact research writing and publishing for EAL and NES scholars in SSH and STEM disciplines. The situated nature of

academic writing informs the study's position as it employs Ken Hyland's (2004) and Basil Bernstein's (1999) discussions of disciplinary discourse.

To situate the research problem, the following sections outline some of the most recognised disparities in the research writing. Then, they offer a review of how the linguistic injustice debate is still problematised in ERPP literature, demonstrating the significance of the study's rationale. Finally, this chapter outlines the study's aims of investigating the claims of linguistic injustice and seeking to understand the different realms in which EAL scholars experience disadvantages. This chapter concludes by reviewing the structure of this thesis.

1.2 Disparities in Research Writing

It is hard to deny that the global academic publishing is flawed and has suffered from plenty of disparities and inequalities (Hultgren, 2020a). For instance, in terms of linguistic representation, NES scholars' representation in academic publishing (primarily from the US, UK, and Canada) in the global publishing scene has been more noticeable than that of their EAL peers up until the end of the last century (Canagarajah, 2002; Flowerdew, 2015; Hanauer et al., 2019; Hultgren, 2020b; Lillis & Curry, 2010). In terms of geographical representation, most of the global research has originated in the West for a considerable time. For instance, Gibbs (1995) traced the national origin of 3300 scientific papers, indexed in the Scientific Citation Index (SCI) and published in 1994 in a study entitled "The Lost Sciences of the Third World". The study's analysis demonstrated that contributions from developing countries with large university systems, such as Mexico, Egypt, Turkey, Nigeria and Venezuela, were meagre. Unsurprisingly, according to Gibbs' analysis, the US led the global output by close to 31%, followed by Japan, the UK, Germany, France, and Canada.

Many perceive the disparities in knowledge construction across the world to mirror many of the existing world's inequities. This view was based on how most of the research is published in the industrial world, which has been labelled as the "haves" as opposed to the developing world, which has been labelled as "the have-nots" (Salager-Meyer, 2008, p. 122). This disparity has been manifested in how 90% of the research is published in 10% of the journals, with only 2% of the indexed research coming from developing countries, which comprise 80% of the world population (Salager-Meyer, 2008, p. 122). More recently, O'Neil (2018) conducted a bibliometric study on the Scopus database. The analysis demonstrated that only ten countries in the world produce more than half of the world's research noticing how the richer countries contribute the most. The top five countries included in O'Neil's study are the United States, China, UK, Germany, and India.

However, the global research scene has changed since more researchers from emerging economies in BRIC: Brazil, Russia, India, and China, are contributing more publications (Hyland, 2016). Nevertheless, most of the world's research is concentrated in the Western and industrialised world, and 90% of the global spending on R&D takes place in North America, the EU, and Asia (Johnson et al., 2018). The USA leads the global spending for an individual country at \$497 billion, with a 26% share of all global R&D. Of course, this number becomes more surprisingly high knowing that only 19% of US scientists and engineers are employed within the education sector, which accounts for three-fourths of US publication output (Johnson et al., 2018). Recently, China's expenditure on R&D overtook the EU with its R&D spending of \$409 billion or 21% of the total global spending (ibid), which seems to suggest more participation of EAL scholars in global knowledge production.

Still, many EAL scholars report difficulties with their research writing and publishing, as evidenced in the plethora of ERPP studies, which reported the challenges faced by EAL scholars from different places across the world, such as China (Luo & Hyland, 2016), Sweden (Langum & Sullivan, 2017), Thailand (Yotimart & Aziz, 2017), and Japan (McDowell & Liardét, 2019). Indeed, it is hard to deny the demanding nature of academic writing for publishing purposes, considering how the average scientific paper takes its authors 90–100 hours to prepare (Tenopir & King, 2004). Thus, many academics across the world consider research writing and publishing processes to be demanding and challenging, and they cite various discursive and non-discursive complexities and challenges with research writing and publishing. Some of these challenges include access to material sources needed for the research to manage the demanding research writing and revising processes (Canagarajah, 2002; Swales, 1990).

1.2.1 The core and periphery distinction

One commonly employed term in ERPP literature to distinguish the representation in international publishing is via the core and periphery binary and, more recently, the semiperiphery (Bennett, 2014). These distinctions have their roots in World System Theory (Wallerstein, 2004), which has influenced some aspects in ERPP scholarship. Wallerstein divides the world, according to economic powers, into “three macro-spheres: core countries, semi-periphery countries, and periphery countries”, with each sphere containing its own core and periphery (Flowerdew & Habibie, 2020, p. 54). Under this economics division, the advanced Western countries represent the core, whereas peripheral countries lack skilled economies. The semiperipheral countries are intermediate between the core and periphery (ibid). The theory was used to refer to the core made up of economically strong countries, including the US, Canada, the UK, Australia, and New Zealand, which have English as their dominant language. The

periphery and semiperiphery are the non-Anglophone, periphery countries. A considerable amount of ERPP literature examined the linguistic and economic differences between the core and periphery, such as the seminal work of Canagarajah's (2002) *A geopolitics of academic writing*.

For a long time, the core and periphery binary provided an easy conceptualisation of the problems encountered by academics across the world for ERPP scholars, and how EAL scholars operate their academic structure and use their research infrastructures.

However, as Flowerdew and Habibie (2020) remark, the problem with Wallerstein's model is that it overlooks the disjunctures between economy, culture, and politics, "which are inherent characteristics of the politics of global culture" (Appadurai, 1996, p.37). Some calls in ERPP literature raised concerns about the ineffectiveness of the core and periphery binary in providing a dynamic understanding of ERPP practices and asserted the importance of examining the periphery participation within peripheral or semi-peripheral communities such as Monteiro and Hirano (2020) in Brazil, López-Navarro et al., (2015) in Spain, Petric (2014) in Serbia, Uysal (2014) in Turkey. This study aimed to address some of these concerns by attempting to provide a more meaningful understanding of the ERPP experiences of EAL and NES scholars beyond the core /periphery and linguistic dichotomies.

1.3 ERPP and Challenges with the English Language

Although different terms are used to describe the role of English in research writing as the research lingua franca or default language, its role as the dominant language of research is well-accepted in holding a near monopoly over most published research (McKinley & Rose, 2018). The acceptance of English as the default academic language has been established, considering there are less than 10,000 journals worldwide which are published in languages other than English (Johnson et al., 2018). Notably, the field

of ERPP emerged out of English for Specific Purposes (ESP) to account for the different challenges faced by EAL scholars in their research writing and publishing experiences. However, the growing role of English as the dominant research language led some EAL and even NES scholars to argue about the linguistic injustice faced by EAL writers who attempt to write and publish their research in their additional language (English).

1.3.1 The linguistic injustice debate

The term linguistic injustice, and its different variations, surfaced in the academic literature and later applied linguistics along with ERPP literature as a result of the hegemony of English as the research lingua franca. The dominance of English as the default research language led to what Robert Phillipson (1992) called “linguistic Imperialism” in his book entitled the same. The term was used to describe the perceived advantage of the NES scholars in academic publishing and the linguistic disadvantages of EAL scholars. For example, Ulrich Ammon (2000) used linguistic injustice to describe the anxieties of EAL scholars in their attempts to secure publications in high-impact, international journals in English, arguing that their NES peers do not experience similar language-related anxieties. Similarly, EAL scholars, primarily in Europe, voiced their concerns about linguistic inequality (Bennett, 2007; Giannoni, 2008; Guardiano et al., 2007; Gunnarsson, 2000; Oakes, 2005). It is worth noting how the first claims of linguistic injustice were primarily voiced by EAL scholars from Spain, Germany, and Scandinavia, with fewer voices from other EAL scholars outside Europe. This ongoing debate is further problematized because of the lack of comparative studies about the ERPP practices of EAL and NES scholars, similar to this current study.

1.3.2 Different perspectives on linguistic injustice

Although there is a lack of comparative studies aiming to assess the validity of the linguistic injustice claims, ERPP literature is filled with different positions on the claims of linguistic injustice despite the field's attempts to move away from this deficit view (Hultgren, 2020a). On the one hand, different voices refer to the situatedness of writing for publication while downplaying the role of language and its impact on research writing. For instance, Lillis and Curry (2010) found the English language to be less influential in research writing in the context of the European periphery countries. Ferguson et al. (2011) also downplayed the claimed advantages of the NES writers, arguing how academic writing is not part of the native speaker's inheritance, and they argued how varying levels of writing competency of EAL writers make it more difficult to argue about linguistic injustice. Kuteeva and Mauranen (2014) argued how issues related to using English in academic publications surpass the native versus non-Native dichotomy.

One of the most compelling arguments about the myth of linguistic injustice was articulated by Ken Hyland (2016), in which he identified different reasons that limit knowledge construction by EAL scholars. Utilizing different qualitative and quantitative studies about EAL scholars' ERPP practices, Hyland (2016) argued that physical, scholarly, and financial elements could put the EAL scholar at a disadvantage more than language (p. 59). He argued that "framing publication problems as a crude native vs non-native polarization function to demoralize EAL writers and ignores the very real writing problems experienced by many L1 English scholars" (p. 59). Hyland (2016) drew on disciplinary writing literature to advance his argument that "a key issue for many novices is the lack of a disciplinary appropriate conceptual framework that allows them to speak with authority: like NNEs academics, L1 authors must develop a

sense of self as an academic writer” (p. 62). Hyland (2016) laid a very persuasive argument about the different factors that impact EAL scholars' research writing, including disciplinary and geopolitical elements, in addition to different competencies in negotiating the textual conventions of academic writing. More importantly, he highlighted the lack of comparative studies of the writing practices of EAL and NES scholars that could support the role of language and linguistic injustice in research writing and publishing.

It is important to note how Hyland’s article about the myth of linguistic injustice has been critiqued, referring to how NES scholars enjoy linguistic privilege because they publish in their first language. For example, Politzer -Ahles et al. (2016) cited NES privilege claiming how NES scholars benefit from their familiarity with the language, which could lead to more successful publications. Hyland (2016) responded to these claims by showing how Politzer-Ahles et al. (2016) lacked any evidence supporting their claims, and he renewed his call for the need for comparative studies of EAL and NES ERPP practices. John Flowerdew (2019) responded to Hyland’s (2016) article by providing some arguments that draw on linguistic concepts to advance an argument about the existence of linguistic variance between EAL and NES writers, which disadvantages the EAL writers.

One of the key arguments against the linguistic injustice myth is based on the linguistic differences between EAL and NES writers. These differences include typographical differences between some languages and English (Flowerdew, 2019). Secondly, NES scholars’ familiarity with English vocabulary more than their EAL peers is viewed to help them meet academic writing demands (ibid). For example, Flowerdew (2019) has referred to earlier studies of Spanish (EAL) scholars who used to translate difficult vocabulary into Spanish (St. John, 1987). Finally, the concept of register is often used

to argue that NES writers have a better grasp of the English syntax (Flowerdew, 2019), but the importance of the concept of register was earlier refuted by Hyland (2016), who noted the little connection between native speakerhood and academic writing because of the specialized and learned nature of academic writing. Still, the critics of the linguistic injustice myth echoed Hyland's call for more comparative studies of EAL and NES scholars to better understand their writing experiences (Flowerdew, 2019).

One of the critical dangers stemming from the lack of comparative work on linguistic injustice is that it is recurrently used to justify some of the inequalities in global research writing; thus, hindering the possibility of addressing other forms of inequality in the global publishing scene. Hultgren (2019; 2020) aptly argued that conflating the issues of inequity, disadvantage and flaws that are not limited to the linguistic realms could misdiagnose the problem and propose the wrong solutions. Expectedly, several EAL and NES scholars share similar positions to Hyland and Hultgren, and they emphasise the situated nature of academic writing. For example, some EAL scholars reported how publishing is a game in which English plays a small role, but it requires more understanding of the textual convention (Shchemeleva, 2021). Recently, Soler (2022) warned against using matters of binaries (NES vs EAL) to understand the debate on linguistic injustice in academic publishing in English because of the complexity of knowledge construction, which became the focus of this study.

1.4 The Research Problem and Context

1.4.1 The lack of comparative research on linguistic injustice

The complexity of research writing worldwide and the active participation of EAL scholars in the global knowledge production necessitate a critical examination of the linguistic injustice claims. Arguably, the lack of comparative studies is central to the linguistic injustice debate, especially since many of its critics do not acknowledge the ERPP experiences of NES scholars and the challenges they face in their research writing and publishing. Another critical aspect of the studies that report claims of linguistic injustice is how they originate primarily in Europe, specifically from semi-peripheral European countries. Another crucial problem is how linguistic injustice claims often assume that all EAL scholars are equally competent or incompetent users of the English language. The same applies to NES scholars, who are believed to be skilled writers because they write in their native language. The call for more contextualised ERPP studies examining how different social factors, such as discipline-sensitive linguistic practices, can influence research writing has recently intensified (Canagarajah, 2020; Crystal, 2020; Soler, 2022). The calls for more interdisciplinary (language) research that draws on political theory (Hultgren, 2020a) also appeared. More recently, the surge in scientific papers about the COVID-19 virus originating outside the Anglophone sphere warranted a call for a more realist understanding of the research experiences of EAL scholars (STM, 2021; Taşkın et al., 2020, June 18; UNESCO Science Report, 2021).

1.4.2 The limited comparative studies on literature review writing and disciplinary writing conventions

Notably, ERPP scholarship has studied specific parts of the research article, and some of them compared the textual features of these parts in the writing of EAL and NES students and scholars. Yet, a key problem in these studies is how they limited their investigations to the textual level, and little to no work focused on the situated practices for preparing and writing the literature review (LR) section by experienced academics, similar to this study. ERPP scholarship investigated the textual features of abstracts (Doró, 2013; El-Dakhs & El-Dakhs, 2020) and discussion sections (Alharbi, 2016; Amnuai & Wannaruk, 2013; Bitchener & Basturkmen, 2006) and the conclusion (Sheldon, 2018). However, few studies investigated the literature review or the introduction sections –since the two terms are often used interchangeably— from a situated writing perspective, similar to this study. There are some studies (Del Saz Rubio, 2011; Loi, 2010; Hirano, 2009; Samraj, 2005; Sheldon, 2011; Wang & Yang, 2015) that offered a comparative textual analysis of the introductions of a research article, written by EAL and NES scholars, using the Create a Research Space (CaRS) model developed by John Swales (1990).

Additionally, few studies investigated the writing of the LR section (Afful et al., 2021; Chen & Li, 2019; Kwan, 2006; 2008); however, these studies were focused on graduate students' writing and limited their analysis to the rhetorical and textual features of the CaRS model. Consequently, this study developed its research question around the LR section in a research article in response to the lack of ERPP studies investigating the situated writing practices for preparing and writing the LR section in a research article. More importantly, the study's focus on the LR section is founded on the position that LR writing is a nexus of different phases, realised in different parts of the RA (Kwan,

2008); thus, focusing the study's questions on its reading and writing practices aimed to offer a more dynamic understanding of the ERPP experiences of EAL and NES scholars across the disciplines.

Another important factor that motivated this study's focus on examining the situated aspects of preparing and writing the LR section is in how its reading and writing practices are rooted in disciplinary conventions. Thus, centring the inquiry on LR offered insights into the disciplinary variance in SSH and STEM disciplines. As many opponents of linguistic injustice suggested, ERPP practices for both EAL and NES scholars are affected by different factors besides language. For example, the various disciplinary writing conventions have been recognised in the growing body of ERPP literature to impact the ERPP practices for both EAL and NES scholars (Hyland, 2014; 2016). Still, few comparative studies analysed the variance in social sciences and humanities (SSH) disciplinary writing practices and STEM disciplines, and far fewer studies compared the ERPP practices of EAL and NES scholars in SS and STEM disciplines.

1.4.3 Methodological limitations

The current ERPP scholarship actively recognises the methodological limitations of the existing studies on linguistic injustice, which usually employ surveys distributed to multilingual scholars in one country or across different countries without accounting for the points of view of NES scholars. The first limitation is how most of the studies that report on linguistic injustice employed survey methods to gauge the perceptions of EAL scholars on their ERPP practices. Ferguson et al. (2011) were among the first critical voices of surveys, noting how they can only supply secondary supporting evidence for gauging the degree of disadvantage. Hyland (2016) expressed a similar position about

employing surveys to examine injustice, highlighting how these surveys offer a mixed picture and reflect the context-dependent nature of attitude surveys. These reported problems with the research design usually found in ERPP scholarship influenced this study's qualitative research design and its interest in providing dynamic and contextualized accounts of its participants' ERPP experiences.

1.4.4 The limited comparative studies on EAL and NES scholars

Few qualitative, comparative studies investigated the situated aspects of research writing practices for EAL and NES scholars. Furthermore, fewer studies compared research writing practices for NES and EAL scholars based outside the Global North, similar to this study. For example, Pérez-Llantada's (2013) comparative review of how EAL (Spanish) and NES (American) scholars approach and conceptualize research writing and publishing is one of the few comparative works (EAL and NES) in ERPP scholarship. Pérez-Llantada's (2013) findings suggested how the EAL scholars favoured international publishing in English because it was more viable for disseminating their knowledge, emphasising how international (English-language) journals are open for all researchers. Despite this recognition, the EAL scholars, in that study, articulated different difficulties in publishing their research than their NES peers. For example, the Spanish EAL scholars expressed their textual problems in making their arguments more appealing, and how language could impair how they communicate their disciplinary knowledge. Despite the admirable scope of Pérez-Llantada's study, it offered general observations about less salient challenges faced by EAL and NES scholars without exploring the situated nature of research writing and its interplay with language. Additionally, the study focused on the experiences of Spanish EAL scholars, who are heavily present in ERPP scholarship (e.g., Burgess et al., 2014; Moreno et al., 2012), unlike other linguistic groups.

1.4.5 The limited studies on Arabic-speaking EAL scholars

A fourth problem with the current ERPP research is how the expansive ERPP scholarship that examines the writing experiences of different multilingual scholars has not investigated Arabic-speaking EAL scholars in a systematic manner, like this study. Studies about specific scholars who belong to one linguistic group and/or country have flourished in ERPP literature. For example, Italian, Romanian, Chinese, Swedish, Thai, Japanese, and Iranian multilingual scholars were examined by Diani (2014), Muresan and Pérez-Llantada (2014) Luo & Hyland (2016), Langum & Sullivan (2017), Yotimart et al., (2017), McDowell and Liardét (2018), and Rezaei and Seyri (2019) respectively. In addition, Habibie (2016) and Hanauer et al. (2019) also examined scholarly writing practices in different countries such as Canada, Taiwan, and Mexico. Nevertheless, research on EAL Arabic-speaking writers remains limited and, more importantly, not addressed from the disciplinary perspectives usually found and/or defined in ERPP literature.

The research activity of Arabic-speaking EAL scholars attracted the attention of several linguists, such as John Swales (1990) who noted the success of Arabic-speaking EAL scholars in the hard sciences working in the American academy. Furthermore, Salager-Meyer (2008) observed the impressive number of Arabic-speaking EAL scholars (working in American and/or European universities) winning Nobel prizes. However, these anecdotal mentions were not supported by any empirical evidence. They were made to highlight how institutional and national contexts affect knowledge construction, with language playing a minor role in it. Evidently, there is a paucity of research on Arabic-speaking EAL scholars and their ERPP practices although ERPP scholarship is expanding with studies of different multilingual scholars (e.g., Iran, Thailand; China; Italy; Spain; Germany; Sweden; Pakistan).

Arabic-speaking EAL scholars are indeed engaged in research outside and inside the Arab world. For example, the Arab League's (2014) migration report indicates that 31% of all emigrants from the third world residing permanently in the United States (US) are of Arab origin, meaning that they and/or their families immigrated from Arab countries. Additionally, several Arabic-speaking EAL scholars are engaged in research at their respective Arab universities since several Arab countries have adopted proactive research agendas with increased investment in research (Badry & Willoughby, 2016). For example, the United Arab Emirates (UAE), where this study was conducted, is adopting a national research agenda that requires universities to become more active in international research. Recently, the UNESCO Science Report (2021) referred to the UAE's advancing research agenda and spending as a "speculator illustration of how countries seek to diversify their economies and make them knowledge-incentive" (p. 18). However, despite how some Arab countries are embracing active research agendas, there are still few studies on the writing and publishing experiences of Arabic-speaking EAL scholars who work in Arab universities and/or internationally.

1.5 Aims of the Study

By being conducted in the UAE, which is an emergent regional research centre, this study has responded to a critical need in ERPP scholarship about the necessity of conducting comparative studies of EAL and NES scholars to evaluate the claims of linguistic injustice claims voiced by many EAL scholars. Secondly, in its examination of linguistic injustice claims as an obstacle in research writing and publishing, the study has identified the increasing importance of disciplinary writing conventions, and how they impact research writing and publishing for EAL and NES scholars in SSH and STEM disciplines. Finally, this study's focus on the situated practices for preparing and writing the LR section in a research article aims to offer new dynamic insights into the

ERPP experiences of EAL and NES scholars. The study's comparative design comprised of 22 qualitative interviews with 11 EAL and 11 NES scholars in SSH and STEM disciplines.

The aims of this comparative study are as follows:

- Developing a meaningful understanding of EAL and NES scholars' ERPP practices, which transcends the binary of native and non-native writers by emphasising the roles of disciplinary writing knowledge and conventions in research writing.
- Examining the ERPP challenges faced by scholars based outside the Anglophone world.

1.6 Research Questions

1. What are some of the situated characteristics for preparing and writing the literature review section in a journal article for EAL and NES scholars in SSH and STEM disciplines?
2. What are some of the ERPP challenges faced by EAL and NES scholars who publish outside the Anglophone sphere in SSH and STEM disciplines?

1.7 Structure of the Thesis

Chapter one has presented this study's motivation for offering a more dynamic understanding of the ERPP experiences and disparities of EAL and NES scholars beyond the linguistic binary. Chapter two contextualises the study through an examination of the existing literature. Pertinent concepts in ERPP literature, the limited studies on Arabic-speaking EAL scholars, and the conventions for writing a research article are used to make a case for the comparative approach employed in the thesis. Chapter three outlines the study's theoretical framework, which embraces the situated nature of academic writing and its disciplinary discourses. Chapter four reports the study's research design and its data analysis approach. Chapter five outlines the answers to the study's research questions organised under four thematic results: LR search, reading, writing practices, and ERPP challenges. Chapter six assesses the study's qualitative findings and situates them with respect to the study's theoretical framework on disciplinary discourses and their communities. Chapter seven draws together how the study's results and analysis meet the study's aims in unpacking the complexity of ERPP practices by problematizing the simplicity of the linguistic injustice claims. It concludes the thesis by highlighting how this comparative study contributed to ERPP knowledge by exploring the impact of disciplinary writing conventions on research writing.

Chapter 2: Literature Review

“Academic English is no one’s first language” (Hyland, 2016, p.61).

2.1 Chapter Introduction

The purpose of this chapter is to contextualise the study’s research problem and demonstrate how its investigation of the validity of linguistic injustice claims and the role of disciplinary writing conventions addresses a gap in the current ERPP scholarship. Divided into three major sections, this chapter critically evaluates three key areas of literature on the ERPP experiences of EAL and NES scholars, the ERPP scene in the Arab world, and the conventions of preparing a literature review section. The first section (2.2) reviews the field of ERPP, the role of English as the research lingua franca, and its different users to offer the necessary context for understanding the research questions and topic. The second section (2.3) provides a critical synthesis of the limited ERPP scholarship on the Arabic-speaking EAL scholars and the research environment(s) in the Arab World to further frame the research problem by emphasising the situated aspects of research writing and publishing and highlighting how the study addressed a gap in its examination of the ERPP experiences of Arabic-speaking EAL academics. The last section (2.4) delves into the history of the research article (RA). It reviews the conventions for reading and writing a journal article's literature review (LR) section because the study investigated LR reading and writing practices. This last section offers new perspectives on one of this study's central arguments regarding the interplay between disciplinary writing conventions and research writing and publishing, which is further developed in chapter three.

2.2 Overview of English for Research Publishing Purposes (ERPP)

This section focuses on some of the pertinent concepts and definitions in ERPP field to foreground the study's research questions about the ERPP experiences of EAL and NES scholars. This section begins by reviewing the role of English as the dominant language in research writing and academic journals. Then, it reviews the literature on the different English language users (EAL and NES) who represent the two linguistic groups in this study.

In *Introducing English for Research Publishing Purposes (ERPP)*, John Flowerdew and Pejman Habibie (2021) define ERPP as “an academic field concerned with the investigation of the nature and use of English in research and publication contexts” (p. 2). The term ERPP has been developed to describe the language used within the highly constrained domain of written research output (Cargill & Burgess, 2008). The first definition of ERPP appeared in the special issue of the *Journal of English for Academic Purposes* as “a branch of English for Academic Purposes (EAP) addressing the concerns of professional researchers and postgraduate students who need to publish in peer-reviewed international journals” (Cargill & Burgess, 2008, p. 75). Different theories and methods inform ERPP research as it employs social theories, theories of discourse, theories of communication, and theories of teaching and learning using quantitative and qualitative methods, following two broad theoretical approaches: social constructivism and genre analysis (Flowerdew & Habibie, 2022).

Social constructivist theories inform ERPP scholarship to a great extent because of their views of language as a social practice. These theories are primarily situated learning and academic literacy theories because they emphasise the situated nature of writing. These two theoretical frameworks are often used to examine how EAL writers in a particular context experience publishing in English (Casanave, 1998; Cho, 2004;

Flowerdew, 2000; Hasrati, 2005; Tardy, 2005; Nygaard, 2019) since these two frameworks view language, and reading and writing, as social practices (Barton & Hamilton, 1998; Lillis & Scott, 2007). Additionally, these two theoretical frameworks view scholarly publication as a means of initiation, socialisation, and participation in the practices of one's community of practice (Lave & Wenger, 1991) or discourse community (Swales, 1990). Situated learning and academic literacy theories recognise the situated nature of learning and writing. Thus, they view that novice and EAL academics start participating in the academic community when they "join those communities and develop the required literacies through engagement and under supervision of more experienced members" (Flowerdew & Hababi, 2020, p. 53). Similar to other ERPP studies, this study's research questions recognise the situated nature of writing, and its theoretical underpinnings are rooted in Ken Hyland's (2004) work on disciplinary discourses and communities and Basil Bernstein's (1999) classification of vertical and horizontal discourses, which are outlined in chapter 3.

Other theoretical underpinnings have influenced ERPP scholarship, such as Wallerstein's World Systems Theory (discussed in the introduction) and genre theories. The core and periphery dichotomy, drawn from Wallerstein's work, has been used in ERPP scholarship to understand the political, economic, and linguistic powers held by the Anglophone world, and how it sustained its academic and linguistic powers (Flowerdew & Habibie, 2021). Similar to this study, a great deal of ERPP work investigates research articles (RAs) at both the genre and situated writing levels. The main ERPP related genres in the public domain are RAs, book reviews, conference presentations, and academic blogs (Flowerdew & Habibie, 2021; Hyland, 2009; Hyland & Jiang, 2019; Swales, 1990). Still, other ERPP related academic genres have been analysed, including genres not in the public domain, such as referees' reports, editors'

letters, and research grant proposals. In addition to genre analysis, investigating the situated aspects of scholars' writing practices comprise a significant part of ERPP scholarship, rooted in its social constructivist approach, which views text production as a social practice (Flowerdew & Habibie, 2021; Pérez-Llantada, 2021). Examining the situated nature of scholars' writing has been celebrated in ERPP scholarship because these situated accounts can serve as a comparison point to other situations, influence policy change and local and broader levels, and improve pedagogical practices (Flowerdew & Habibie 2021).

However, it is crucial to note that interest in the research article and the situated aspect of preparing and writing it predates the development of the ERPP. Different scholars from various disciplines, such as English and educational research, were interested in scientific texts and publishing practices, such as Barber (1962), Huddleston (1973), Selinker (1981), and Woolgar and Latour (1986). As an "eclectic" field (Flowerdew & Habibie, 2021, p. 2), ERPP intersects with different disciplines such as philosophy and history of science (e.g., Atkinson, 1998; Bazerman, 1988; Latour & Woolgar, 1979), policy studies (e.g., Feng et al., 2013; Lee & Lee, 2013), linguistic policy (e.g., Ammon, 2000; Pronskikh, 2018), and predatory publishing (e.g., Eriksson & Helgesson, 2018; Mills & Inouye, 2021). Unsurprisingly, many of the earlier studies of ERPP practices took place in English departments with different aims, often led by pedagogical reasons. Earlier ERPP works emerged to improve the scholarly writing of students and scholars who have English as an additional language and need to write and publish in English, which is the default academic language.

2.2.1 English as the research lingua franca

The written English language is currently considered the default research language and is often referred to as the research lingua franca (Hyland & Jiang, 2019; O’Neil, 2018; Mauranen et al., 2016; Mauranen et al., 2010), and some label English as the *new Latin* (Mortensen & Haberland, 2012). The term lingua franca is derived from the Arabic term ‘lisan-al-farang’, which refers to an intermediary language used by speakers of Arabic with travellers from Western Europe (House, 2003). Although English is the current language of science, it has been preceded by other languages, which were considered the science lingua franca. For example, at the beginning of the 20th century German became a key language (Swales, 1990). Before that, Latin was the default academic language up to the late 19th century (McNeill, 1997). German was a lingua franca during the late Middle Ages (Darquennes & Nelde, 2006). From the second half of the eighth to the end of the 11th century, Arabic was the research lingua franca (Blau, 1994; Thomason & Elgibali, 1986). After the Second World War, English competed with local European languages (Swales, 1990), and scientists outside Europe, who aspired for international recognition, wrote in English.

English came to prominence as the default academic language by the middle of the last century, and it has replaced other languages rapidly—to the extent that its linguistic monopoly of published research remains uncontested (McKinley & Rose, 2018). Arguably, the United States of America played an important role in developing the English language as the lingua franca of scientific research and publication towards the end of the Second World War. Unlike the French and German research infrastructure, which were affected significantly after WWII, the US was the only country to come out of the war with its undamaged educational and research infrastructure (Ammon, 2001; Flowerdew & Habibie, 2021). As a result of the American academy being uncrippled

by the war, there was a surge in English-language publications and less in French and German, and more so during the Cold War of the 1950s, 60s, and 70s when the US dominated the international investment in research and development (Ammon, 2001; Flowerdew & Habibie, 2021; Hultgren et al., 2014).

The predominance of English as the research lingua franca can be seen through the use of English as the medium of instruction (EMI) in many universities outside the Anglophone countries. According to Flowerdew and Habibie (2021), the increasing use of EMI in universities could be a cause and effect of the predominance of English. For example, Dearden's (2015) study found a noticeable expansion in EMI provision worldwide in 54 countries, mainly in Europe, the Middle East, and South America, especially across private universities. Similarly, Macaro et al. (2018) noted how the Middle East has also experienced a sharp rise in the use of EMI in higher education institutions, for many public universities prompted using EMI for a long time, led by the public universities in the United Arab Emirates (UAE), which mandated the use of EMI since the early 1970s.

This section briefly surveyed the reasons behind the dominance of English as the research lingua franca since the end of WWII. The strong and well-funded research infrastructure of the United States and the increasing use of English as a medium of instruction in different universities maintained the role of English as the research lingua franca. However, it is essential to consider John Swales' (1990) astute observation that a language is maintained or declined in response to the amount of new information it carries. It can be safely argued that the role of English as the research lingua franca remains undisputed (McKinley & Rose, 2018) because it constantly reports new knowledge since most international journals are published in English.

2.2.2 Journals and the English language

As a result of the predominance of English as the research language, most academic publishing companies are adopting English as their preferred publishing language. For example, Clarivate Analytics, which curates The Web of Science database, owned by Thomson Reuters, identified its journal selection criteria based on language:

English is the universal language of science at this time in history. It is for this reason that Thomson Scientific focuses on journals that publish full text in English or at very least, their bibliographic information in English. There are many journals covered in Web of Science that publish only their bibliographic information in English with full text in another language. However, going forward, it is clear that the journals most important to the international research community will publish full text in English. (Clarivate Analytics, 2020 as cited in Flowerdew & Habibie, 2021, p. 13)

Recent figures suggest that there are around 33,000 journals published in English and less than 10,000 in other languages (Johnson et al., 2018). The highest number of journals published in other languages include French (3,500), German (2,700), Spanish (2,300) and Chinese (1400) (Johnson et al., 2018; Lillis & Curry, 2018). In addition to the limited number of journals published in languages other than English, the indexed national journals have an impact factor of three or lower, and they receive fewer citations than journals published in English (Taşkın et al., 2020). Additionally, the non-English, regional, or national journals tend to focus on applied research or social matters of particular relevance to the local community (Li & Flowerdew, 2009).

The dominance of English-written, indexed, and high-impact factor journals is another reason for the prominence of English as the research lingua franca. Swales (1990)

astutely noted how earlier calls to limit the dominance of English-written journals failed to predict the rapid growth of English as the research lingua franca. For example, Swales (1990) referred to how in 1980, the UNESCO's international bibliography of the social sciences feared that American and Anglophone abstracting and indexing services would underrepresent non-English research items. However, the expansion in the publishing industry 30 years after Swales (1990) expressed his fear of the underrepresentation of non-English journals opened more space for English language journals for different reasons. These reasons include technical innovation, the rise of open-access journals, the increased number of active researchers, and the importance of publishing to academic careers (Hyland & Jian, 2019).

2.2.3 English and its different users

Considering the growing role of English as the research lingua franca, using English for research writing and publishing purposes is not limited to native English speakers (NES). English is also widely used by other scholars who have English as an additional language (EAL). Since this study compares EAL and NES scholars, the sections (2.2.4; 2.2.5; 2.2.6; 2.2.7) below synthesise some relevant literature on these two linguistic groups and their ERPP experiences. The last section contextualises the experiences of NES scholars who work in the Arab World, similar to the NES participants in this study.

In *English as a global language*, Crystal (2003) chronicled the growth of English as the native language of a few million people living in parts of the UK to being a global lingua franca over five centuries. Although there are no precise estimates of the number of Native English Speakers (NES), it is estimated that there are somewhere between 350 and 400 million native speakers of English, which is around 5% of the current

world population, estimated at 7.8 billion (Flowerdew & Habibie, 2021). Native English Speakers are usually found in different countries which adopted English as their first language because they were historical parts of the British Empire. According to the United Nations (2021), these countries are The United States of America (231 million native English speakers/NES), the United Kingdom (60 million NES), Canada (19 million NES), Australia (17 million NES), and New Zealand (4.8 million NES).

Outside the Anglophone world, around 900 million people are familiar with English as an additional language (EAL) (Eberhard, Simons, & Fennig, 2020). Although there are no precise estimates about the number of people who are familiar with English, rough numbers suggest that about 11.5% of the world population (7.8 billion) have English as their additional language, which suggests how Native English Speakers are outnumbered by Speakers of English as Additional Language (Flowerdew & Habibie, 2021). The term English as Additional Language (EAL) describes speakers and writers who use English and acknowledges that the speakers/writers are competent in at least one native language (Flowerdew & Habibie, 2021). In ERPP scholarship, EAL is the preferred term instead of the previously commonly used term non-native because the ‘non’ suggests that something is missing and “the term is thus discriminatory” (Holliday, 2005; Flowerdew & Habibie, 2021, p. 19).

2.2.4 ERPP challenges for EAL and NES scholars

Expectedly, NES and EAL scholars often agree that academic writing is challenging because it is no one’s native language (Bourdieu, Passeron & Saint Martin, 1994; Hyland, 2016). However, second language writing literature has attempted to understand the challenges faced by EAL and NES undergraduate writers (Atkinson & Ramanathan, 1995; Eckstein & Ferris, 2018) more than the writing of EAL and NES

academics. Most of the works that examined undergraduate writing focused on textual choices and reported mechanical and organizational issues (Hirose, 2003; *ibid*).

Understandably, it is nearly impossible to generalise the challenges that EAL and NES scholars face as they have different individual, institutional, and national experiences (Lillis & Curry, 2011). Consequently, a central area in ERPP scholarship developed to understand how EAL scholars approach academic writing and the various challenges they face, as in the investigations of Lillis and Curry (2010; 2011; 2018). According to Flowerdew and Habibie (2021), understanding these challenges faced by EAL has been the “driving force behind the development of ERPP, making it a political movement for some, as well as a field of academic enquiry” (p. 19).

2.2.5 EAL scholars and ERPP challenges

Considering that EAL speakers represent around 11% of the world population (Flowerdew & Habibie, 2021), it is not a surprise that many scholars who publish in English (the language of most international journals) are not native speakers of English. ERPP scholarship has a considerable number of studies that reviewed the publishing practices of EAL scholars. Most of these studies have identified that EAL scholars face challenges in managing the publishing demands of international journals using their material resources. For example, Corcoran et al. (2019) unpacked some of the global challenges faced by EAL scholars who want to publish their research in English in seven different geolinguistic regions in Asia, Europe, and South America. In Europe, Isık-Tas (2018) explored the writing challenges faced by Turkish scholars, and Kulczycki et al. (2020) identified the challenges faced by EAL scholars in seven European countries. Recently, Sadeghi et al. (2020) examined the experiences of Iranian scholars. These studies emphasized how meeting the demands of international

publishing and varying material resources impact EAL scholars' research writing practices.

However, it does not remain easy to generalise the challenges faced by EAL scholars, for Flowerdew and Habibie (2021) identify that many EAL scholars could be equally proficient in academic writing in English as their NES peers for different reasons. One reason is how many EAL scholars are schooled in English at K-12 and tertiary levels, which is understandable considering the growth of EMI education in different parts of the world. Another reason is that many EAL scholars work on developing their writing knowledge through their educational and publishing experiences.

2.2.6 NES scholars and ERPP challenges

Unlike their EAL peers, little empirical research has focused on the NES scholars and their writing practices and experiences for publishing purposes (Fazel, 2019). The limited studies, which examined the ERPP challenges faced by NES scholars in writing their research articles, emphasised the demanding nature of academic writing, especially for nonvoice and early-career researchers. For example, at the doctoral level, Jalongo et al. (2014) noted how PhD students in education in different universities in the United States, Canada, and Australia lacked the necessary skills required for publication and recommended offering specialised courses (similar to ERPP courses) for teaching scholarly publishing at the doctoral level. Habibie (2016) debunked the myth of the lucky Anglophone in a case study about NES doctoral students in Canada, which identified serious challenges novice NES Canadian scholars faced. His study confirmed how academic literacies, community-specific norms, and discipline-specific conventions pose challenges for NES scholars who may have better access to material sources than their EAL peers in peripheral locations.

However, NES academics still face similar challenges with writing for publishing purposes. McCulloch (2017) and Tusting and Barton (2016) developed a detailed project on the UK academics' writing practices and socio-material aspects of their writing situations. McCulloch et al. (2017) noted how NES scholars in the UK keep learning new informal writing strategies from students, friends, family members, and more senior colleagues. In the Anglophone Canadian context, limited or lacking rhetorical knowledge of research writing was identified as a problem for novice NES scholars (Fazel, 2019). Finally, the imposter phenomenon seems to exert a powerful effect on several NES scholars, and surprisingly it was not always offset by individual successes (Merga & Mason, 2021).

2.2.7 NES Scholars in Arab universities in the Arabian Gulf countries

As a result of the expansion of EMI provision in Arab universities, many universities, especially those in the Arabian Gulf, employ NES teachers and researchers. In line with the vision of many Gulf Cooperation Council (GCC) countries that aim to transform into knowledge-producing communities by encouraging research (Weber, 2011; Badry & Willoughby, 2016), there has been an expansion of private universities in GCC countries. Between 2000 and 2009, American, Australian, and British campuses almost doubled (from 140 to 260) in the Middle East (Weber, 2011). During the last decade, well-known American and European universities established campuses or branches in the GCC countries. American-style universities make up two-thirds of the independent universities in the UAE since American higher education is widely sought after in the Arab World (Romani, 2009; Sperrazza, 2019; Vora, 2013). For example, Sorbonne and NYU opened branches in the UAE, and American universities like Texas A&M and George Town opened branches in Qatar (Hanafi, 2011). These universities, in addition to older private and public universities, hire native speakers of English from

Anglophone countries (Belhiah & Elhami, 2015). Also, many of these universities hire EAL teachers who received their training in Anglophone countries.

Public and private universities hire NES and EAL teachers in the UAE (Badry, 2011), home to 200 nationalities, and they speak roughly 100 languages (Dahan, 2015). For example, according to QS Top Universities, the federal university in the UAE has 488 international faculty members and only 48 UAE faculty members, which is understandable as the UAE citizens only represent 10% of the population (Eppard et al., 2021; QS Top Universities, 2020). Many of the international faculty members in the GCC universities are EAL speakers, and some are Arabic-speaking EAL speakers.

2.3 ERPP Scene in the Arab World

The previous section (2.2) synthesised some of the pertinent concepts in ERPP scholarships to contextualise the study's research questions about the ERPP experiences of EAL and NES scholars. Since this study was conducted in the Arab World, the following section focuses on the ERPP scene in the Arab World. First, it reviews the status of Arab universities and Arabic-language journals, followed by the use of English for research writing in the Arab World and the scant studies on the ERPP experiences of Arabic-speaking EAL scholars. This section situates how this study contributes to ERPP knowledge in investigating an understudied linguistic group (Arabic-speaking EAL scholars).

2.3.1 Overview of Arab universities

There are more than 600 Arab universities, divided into public, semi-private, and private universities, in the 22 Arab countries, and their status varies according to each country's economic and political conditions. The number of Arab universities expanded from 233 Universities in 2003 to about 286 Universities in 2006, of which 153 are

governmental, and 133 are private universities (Abu-Orabi, 2013). In 2013, the number rose to more than 600 universities, which enrolled around 11 million students and hired 250,000 faculty members (ibid). More recent examinations of university status in the Arab World recognised that most of the Gulf universities enjoy a financially sound proposition in a politically stable environment, such as King Saud University (KSU), the United Arab Emirates University (UAEU) and a few more such as the American University of Beirut (AUB), which is one of the oldest in Arab World (Almansour, 2016).

Three languages of instruction are used in the different types of Arab universities (Hanafi, 2011). Public universities are national universities that generally use an Arabic-language curriculum. Private non-profit universities, which attract upper-middle-class students (e.g., AUB in Lebanon, AUC in Cairo, AUS in Sharjah), teach exclusively in English or French. Two-thirds of the new universities founded in the Arab World since 1993 are private, and more and more of them are branches of western, mostly American, universities (Hanafi, 2011). The private universities do not use Arabic as a language of instruction; they mostly use English and, in lesser instances, French or German (ibid).

Although there are key differences between the public, private-non-profit, and private-for-profit universities in the Arab World, most Arab universities have varying heavy teaching loads that affect research production. According to the UNESCO Science Report (2015), it is rare for the actual research activity of teaching staff in government and most private universities to exceed 5–10% of their total academic duties, compared to 35–50% in European and American universities. Moreover, a recent American University of Beirut survey suggested that around 40% of academics' time is spent on research, which translates into an average of two publications per year for each full-

time equivalent researcher (UNESCO Science Report, 2015). These findings were later corroborated in Almansour and Kempner's (2017) study that covered 17 Arab countries. It affirmed that many university professors do not have time for research because of their heavy teaching schedules. However, the limited research support resources, including time, have not stopped Arab universities from mandating research publishing to boost the universities' positions in the international rankings.

The UNESCO Science Report (2015) aptly labelled the interest, of university leaders in Arab universities, in improving their university rankings as a 'ranking craze.' Efforts to improve university ranking via prioritising and increasing international publications have been documented by Alamri (2021) in Saudi universities. In Egypt, Shehata and Eldakar (2018) reported how Egyptian scholars are under increasing pressure to publish internationally. In a study covering the Arab World, Hanafi and Arvanitis (2014) observed that the lack of Arabic journals with a high-impact factor drove Arabic-speaking EAL researchers to publish in English. Despite the interest in publishing in journals with high-impact factors, Almansour and Kempner (2017) and the Price Waterhouse Coopers (PWC) report "Behind Bricks" (2017) noted that it was difficult for Arabic-speaking researchers to publish in them, referring to this as a "major hurdle" (p. 229). Publishing in high-impact journals becomes more problematic when considering the limited number of reputable Arabic-language journals.

2.3.2 Arabic-language journals

Although most public universities in the Arab World use Arabic as the language of instruction, they still expect their staff to publish their research in English-language journals because of the limited number of indexed and credible Arabic-language journals. Several Arab universities discourage publishing in local journals as they suffer

from fundamental problems such as irregular periodicity and a lack of objective peer review (UNESCO science report, 2015). Considering the limited number of credible Arabic-written journals, it is understandable how many Arabic-Speaking EAL scholars publish their research in English. However, recent years have witnessed the growth of Arab journals as many of them are becoming online journals and even open-access journals. For example, 484 Arabic journals are indexed in Scopus and 62 in the Web of Science, and two local impact factors for Arabic journals have been developed recently (Boufarss, 2021).

2.3.3 English language in the Arab world

Writing research in English is general practice in the Arab World because of the promotion system and the limited number of Arabic-language refereed journals. Arabic-speaking scholars and HE administrators in the Arab World recognise the role of English as the research lingua franca. For example, Abdeljaoued and Labassi (2021) noted how English is unequivocally the research lingua franca even when it is less used as a second language in Tunisia, which has French as its second language. An extensive survey conducted within the framework of a European project called the Mediterranean Innovation and Research Coordination Action (MIRA) suggested that most of the Arab world's research is published in English (Hanafi & Arvanitis, 2014). 4340 researchers from 38 countries answered the survey, and 1165 participants reported to be Arabic speakers who had co-authored articles or collaborated on joint projects using English (Hanafi & Arvanitis, 2014). Finally, HE administrators in Arab universities recognise the role and importance of English as the language of research (Almansour, 2017; Onsmann, 2012).

Understatedly, Arabic-speaking scholars who work in universities that use English as the medium of instruction (EMI) find it easier to write in English than those who work in universities that use Arabic or French as the language of instruction. Arabic-speaking EAL scholars taught in the Arabic educational system found that publishing in English was more difficult (Almansour & Kempner, 2017). However, the role of English as the research lingua franca drives Arabic-speaking EAL scholars to publish in English even when they still struggle with the language. For example, Arabic-speaking EAL scholars in North Africa, whose education is based on the French system, have to publish in English because publishing in Arabic or French is not measured in the international rankings and is, therefore, not considered a prestigious publication (Abdeljaoued, 2018).

2.3.4 Arabic-speaking EAL scholars

There is a paucity of research on the ERPP practices of Arabic-speaking EAL scholars. To date, around 20 empirical studies have addressed ERPP related issues faced by Arabic-speaking EAL scholars who write and publish their research in English despite being among the top ten spoken languages worldwide (The World Bank, 2021). Arabic is the official language of 22 countries, and there are well over 375 million native speakers of the language (ibid). These speakers are largely concentrated in the Middle East, but there are minority groups of native speakers worldwide. It is also an official language of the United Nations, the Arab League, the Organization of Islamic Conference, and the African Union (The United Nations, n.d.).

2.3.5 Arabic-speaking scholars' research drivers

The literature on ERPP practices of Arabic-speaking EAL scholars identified four drivers for why Arabic-speaking scholars engage in academic research. These drivers

are personal interest, studying abroad, promotion, and university ranking pursuits.

Many Arabic-speaking EAL scholars expressed personal interest in research similar to what was reported in Mitwalli, Al Ghamdi, and Moussa's (2014) study of the research attitudes of Saudi postgraduate students in health fields. Studying abroad is an additional driver for publishing research. Several Arabic-speaking EAL scholars explained how they conducted research because they collaborated with other scholars during their graduate study abroad. In some studies of their ERPP practices, several Arabic-speaking EAL scholars in Tunisia expressed their sense of nostalgia when thinking about their research environments (Abdeljaoued, 2018) while studying in the West.

The other research driver is promotion, which is strongly linked to publishing in international journals. Hanafi and Arvanitis (2015) explained how private and public Arab universities are adopting the American system for promotion and tenure, "which boils down to identifying research only when it is published in a refereed international scientific journal" (p. 110). Because of the limited number of referred international Arabic-language journals, Arabic-speaking EAL scholars are expected to publish in English. In Egypt, scholars found that publishing in international journals was more beneficial than publishing locally for receiving points from promotion committees (Shehata & Eldakar, 2018). Costandi et al. (2019) pointed out how most Arab universities imitate American and European models, but Hanafi (2011) argued that the Arab region has different institutional conditions that limit the model's potential success. Still, most Arab universities prefer international publications for promotion purposes as well as their interest in improving their ranking in the international tables.

2.3.6 Arabic-speaking EAL scholars and challenges with writing in English

Similar to many novice writers (Floweredew and Hababi, 2021), novice Arabic-speaking EAL scholars face some mechanical challenges in writing in English, which vary according to their level of training in academic writing. Some novice Arabic-speaking EAL scholars, mainly postgraduate students, face mechanical and stylistic challenges such as vocabulary, grammar, the organization of ideas, spelling, and referencing (Al-Khasawneh & Maher, 2010). Arabic-speaking EAL scholars who have French as their second language report surface errors such as spelling, tense, sentence structure, and transfer from French into English as the most common problems they encounter in their academic writing in English (Abdeljaoued & Labassi, 2020).

It is important to point out that few studies addressed the language challenges faced by Arabic-speaking EAL scholars, unlike other EAL scholars. For example, many studies have addressed the language challenges faced by other multilingual EAL scholars (e.g., Spanish, Polish, German), but few studies address the language challenges faced by Arabic-speaking scholars. These few studies identified the lack of language skills as a reported reason for some of the stylistic choices made by Arabic-speaking EAL scholars. For example, in their comparative study of Sudanese and British writers, ElMalik and Nesi (2008) found that Sudanese writers made greater use of the passive voice than British writers. They also found that Sudanese writers used hedging devices less often than their British peers. On the other hand, Abdeljaoued and Labassi's (2020) textual analysis of 658 comments in peer-review reports on 40 articles submitted by Arabic-speaking EAL scholars in Tunisia found that the participants dismissed any bias against them as EAL writers. The participants in that study expressed how their

submissions were never rejected on linguistic grounds, which further illuminates this study's motivation to investigate the validity of linguistic injustice claims.

In terms of disciplinary writing, which is central to this study's approach, it is imperative to note that only two studies addressed how Arabic-speaking EAL scholars write across the disciplines (Abdeljaoued, 2018; Hanafi, 2011). Admittedly, these two studies have been instrumental in informing the development of this study's comparative research approach because they suggested that disciplinary writing conventions affect the writing practices of Arabic-speaking EAL scholars. Firstly, Abdeljaoued's (2018) findings suggested how Arabic-speaking EAL scholars find writing in the hard sciences more formulaic and less demanding than it is in the social sciences. Secondly, the study found that Arabic-speaking EAL social scientists reported problems that differed from those of their hard scientist peers when they shared how they attempted to meet the demands of international publishing.

As Hanafi (2011) argued, "becoming a globalised researcher does not happen without cost in terms of content or narrative" for Arabic-speaking EAL social scientists (p. 301). Using examples from the informants' accounts in his study, Hanafi (2011) explained that it was difficult to publish critical articles of mainstream Western thought, particularly in the core journals in the social sciences fields. Furthermore, the informants in his study explained that writing for an international audience and standards imposes "stylistic models and structure of arguments" (Hanafi, 2011, p. 301), which means that researchers have to spend more time on "convince[ing] their readers of one's logic and arguments" (Abdeljaoued, 2018, p. 358). The findings from these two studies motivated the comparative design of this study and its focus on how EAL scholars (Arabic-speaking) in SSH and STEM disciplines meet the demands of international publishing, especially when writing about their local (Arab) issues.

2.3.7 Arabic-speaking EAL social scientists and researching local issues

Issues related to parochialism are discussed in more depth than language issues in the limited studies about ERPP practices for Arabic-speaking scholars. For example, the leading sociologist Sari Hanafi produced admirable scholarship on social science research problems in the Arab World. When reporting how Arabic-speaking EAL social scientists write for publication, Hanafi (2011) noted the demise of fieldwork and textual analysis in favour of theoretical and statistical analysis. Hanafi pointed out that many articles were distorted to fit within the framework of the international audience; thus, losing both their focus and the capacity to generate debate at national and regional levels. Additionally, some Arabic-speaking EAL scholars noted how there is little attention to local research unless it is truly extraordinary (Almansour & Kempner, 2017).

This little attention to local research becomes more problematic, knowing that research on the Arab World and its local issues is concentrated in the Anglophone sphere with little attention to the knowledge emerging from inside the Arab World. For example, AlMaghlouth et al. (2015) bibliometric analysis of the articles written about the Arab spring demonstrated that most of this research was produced outside the Arab World, primarily in the US and Europe. In fact, only 24% of the articles written about the so-called Arab Spring were written by Arab academics who live and work in the Arab World. This marginalisation by the global gatekeepers of social sciences research in the Arab World became a key concern for many Arabic-speaking social scientists, which was investigated in the scholarship of many sociologists led by the works of Sari Hanafi.

The preceding section (2.3) reviewed the previous research on the ERPP scene in the Arab world, the English language's role in the different Arab universities, and the ERPP experiences of Arabic-speaking EAL scholars. The section aimed to contextualize the study's research problem and highlight the deficiency of the linguistic binary, at least in many private universities in the Arab world. Moreover, the section's review of the challenges that face Arabic-speaking EAL social and hard scientists identified some of the less discussed disparities in research writing and publishing practices.

2.4 The Research Article and the Literature Review Section

This section provides a brief history of the research article and its rhetorical, textual, and organizational development. Since this study focuses on the reading and writing practices for preparing the literature review (LR) section in a research article, reviewing the previous research on the RA and LR helps in situating the study's findings. The section begins by reviewing how the textual development of the RA indicates more structured disciplinary development and increased integration of the literature. Then, it introduces LR reading strategies and processes, which are essential concepts for this study's investigation of LR reading and writing practices. It concludes by reviewing some challenges in writing the LR section, as reported by novice researchers.

2.4.1 A brief history of the research article (RA)

The history of the research article in English began with the publication of the *Philosophical Transactions of the Royal Society (TRS)* in 1665. The informative letters that scientists wrote to each other established the *TRS* as the regular arena for the huge research article genre, which is distinct from letter writing (Swales, 2004). Dwight Atkinson's (1996) rhetorical analysis of research articles published from 1675- 1975 in *TRS* observed how research writing was strongly influenced by author-centred genteel

conduct in the seventeenth and eighteenth centuries. The effort of Robert Boyle and other scientists changed the research article after they proposed some strategies of self-conscious and complex writing, which eventually established the proper foundation for scientific knowledge (Swales, 2004). The literature on the research article (RA), which is usually concentrated in the field of rhetoric and composition, highlights how preparing it is a draining process of rhetorical construction and reconstruction.

2.4.2 The rhetorical development of the RA

The rhetorical strategies in a research article shifted from employing description, a common strategy during the early days of the RA, to explanation (Atkinson, 1996; Bazerman, 1984). One of the key rhetorical studies that traced the textual development of the RA, in addition to Atkinson's (1996), is Bazerman's (1984) analysis of the articles in *Physical Review* from its establishment in 1893 to 1980, which marks "the rise of American physics from backwardness to world dominance" (p. 166).

Bazerman's (1984) analysis suggested increasing intellectual complexity, with more use of explanation and less descriptive strategies, as evident in the increasing use of noun and subordinate clauses. In addition, Bazerman's (1984) study found that citations became distributed throughout the research article, and the findings became embedded in a well-integrated disciplinary tradition. More recently, visualization strategies have become commonly used by including graphs and images in the RA (Canagarajah, 2018; Curry & Hanauer, 2014).

While Bazerman and Atkinson's seminal analysis of the research article was founded on the textual analysis of articles written in hard scientific disciplines, John Swales (1990) contributed a study about the RA in social sciences disciplines by examining articles written in applied linguistics. Swales' (1990) analysis of research articles

published in *TESOL Quarterly* (1968-1986) of its first 20 years suggested similar increase in tables, references, sub-sectioning, and citing articles published in the journal. Swales later (2004) noted more diversity in the authors in TESOL from 1988-2008, with the majority of the non-American authors coming from Canada, Australia, the UK, Hong Kong, and Israel.

In addition to the development of its rhetorical strategies, the RA developed at the organizational level with the increased use of section headings, which reflected the increasing integration of literature in the RA. Knorr-Cetina (1981) noted that section headings became a regular feature in the RA after the 1950s. In contrast, only about 50% of the articles were formally divided into section titles before the middle of the last century. Bazerman (1984) attributes the increasing use of headings to the deepening integration of presented work within the relevant literature and the increasing foregrounding of research as opposed to the researcher, which was more common till the earlier years of the twentieth century, as observed by Atkinson (1996). In addition, these organizational changes meant lesser use of personal pronouns, which was very common in Europe during the last century (Atkinson, 1996), and the development of more structured disciplinary knowledge with new different rhetorical strategies required to legitimize the knowledge (Canagarajah, 2002).

2.4.3 The literature review section in an RA

In the body of work on writing the literature review (LR) section in PhD theses and journal articles, there is a consensus that a literature review is an argument that promotes a position by building a case from credible evidence based on previous research across the disciplines (Machi & McEvoy, 2009). The term “literature review” can refer to a published product such as literature reviews presented as parts of research

papers or theses or a stand-alone literature review publication as they assess existing knowledge in a particular problem domain (Boell & Cecez-Kecmanovic, 2014; Green et al. 2006; Hart, 1998; Khoo et al. 2011). In terms of its role in an RA, academic writing scholarship recognises that LR sections are central to the research process in general (Boote & Beile, 2005; Kwan, 2008). Therefore, the literature review is expected to take place throughout the research process (Onwuegbuzie & Frels, 2016) to overview, synthesize, and/or problematize previous research (Alvesson & Sandberg, 2011; Boell & Cecez-Kecmanovic, 2014; LePine & Wilcox-King, 2010).

2.4.4 Use of the introduction and LR headings interchangeably

When it comes to the sections of a journal article, the terms literature review and introduction are often used interchangeably in different disciplines. Kwan's (2006) rhetorical analysis of LR sections in graduate theses has confirmed how the two terms are used interchangeably. The use of the two terms is understandable when considering the similar and intersectional rhetorical functions of a journal article's introduction and literature review sections. The roles of the intro and LR in situating the research problem are recognized in academic writing conventions (Swales, 1990). It was argued that the LR appears as a separate section in disciplines with specialized languages because they have different repertoires, which then mandate the use of a separate LR section (Bernstein, 1990). However, Kwan (2006) established that a literature review is a nexus of different phases, which inform individuals of the many decisions to make in the process. Thus, it is realised in different parts of a research article (Kwan, 2008).

From rhetorical and textual points of view, the LR and introductions sections are often seen as being part of the same genre because the functions of the LR have also been posited for introductions to research articles and post-graduate theses (Bunton, 2005;

Dudley -Evans, 1986; Swales, 1984; 1990), which suggests that LRs and introductions in research writing may belong to the same genre (Kwan, 2006, p. 32). Similarly, Lin and Evans (2012) examined the variation of 433 RAs in 39 disciplines, and they found that the standard IMRD pattern is still one of the major structural patterns in empirical RAs. However, they noted more variation across the disciplines in employing that pattern. They noted how most of the hard sciences disciplines followed the introduction, method, and results organisation, and the social sciences disciplines added a more detailed literature review section in their work. Their analysis emphasized Swales' (1990) reminder that "like all living genres, the RA is continually evolving" (p. 110).

2.4.5 LR reading processes, strategies, and writing challenges

Literature review (LR) reading process and strategies have been identified as key steps in preparing for LR writing, where the LR reading process was emphasized as non-linear and reflexive (Boell & Cecez-Kecmanovic, 2010; Combs et al., 2010; Kwan, 2008; Wolfswinkel et al., 2013). In most of the LR reading and writing textbooks, reading the literature is presented as a dialogue process in which the readers engage with the text to demonstrate their practical understanding of the literature (Boell & Cecez-Kecmanovic, 2014). More specifically, most of these textbooks introduce the literature review as a process of learning about the research topic and field reading with different purposes, including locating relevant work, preventing duplications and flaws, informing the research design, and identifying a gap (Hart, 2001). The LR reading process is usually divided into two major stages: The first stage is locating and identifying the literature, and the second stage is reading the relevant literature (ibid). However, many writers, especially novice writers, face difficulties in reading and preparing the literature review section.

The few studies on the literature reading processes and strategies focused on the time academics require to read the literature. The seminal works of the library and information scientists Carol Tenopir and Donald King examined the time spent on scholarly reading in different universities in the US, UK, Australia, and Finland from 1977 to 2015 (e.g., King, 2001; King & Tenopir, 1999; Tenopir et al., 2009; 2015). A more recent study about literature reading found that scholars reported 59 monthly readings, including around 20 journal articles, three scholarly books or book chapters, and 17 newspaper articles per month (Late et al., 2019). The increased number of read scholarly works is attributed to the increasing availability of digital sources (ibid).

Interestingly, there is considerable variance in the types of read literature documents across the disciplines and academic ranks. On the one hand, academics read and value international journal articles in the hard sciences the most, whereas conference papers are valued in technical sciences (Late et al., 2019). On the other hand, scholars in the social sciences and humanities read international and national journal articles, scholarly books, and more general publications (ibid). Similar disciplinary reading variations and trends were found in earlier studies such as Piro et al. (2013) and Niu and Hemminge (2012). Additionally, academic rank was found to influence literature reading. Late et al. (2019) found that professors and doctoral students read and value academic publications the most as opposed to directors and lecturers who valued professional magazines and newspapers in addition to academic publications.

The few studies that offered an in-depth review of disciplinary reading practice also found considerable differences in how academics read across the disciplines. Although it seems that scholars in the hard and soft sciences employ similar reading strategies (contextualization, corroboration, critiquing), they use these strategies differently and for different purposes (Niu & Hemminge, 2012). For example, the mathematicians in

Shanahan et al.'s (2011) study were especially critical when reading, and they were seeking errors in the mathematical text, unlike the chemistry experts who sought consistency with external scientific evidence when reading. These reading strategies differ from those employed by the historians, who participated in Shanahan et al.'s study, as their reading aimed to weigh the implications of the perspectives and contexts they read. In theorizing how hard scientists read, Latour and Woolgar (1979) claimed that reading was social, and not just an intellectual pursuit, because the hard scientists' reading strategies vary according to the context and goal of their reading. Later on, Wineburg (1991) referred to this as sourcing when investigating the reading of historical texts. Shanahan et al. (2011) used sourcing to showcase how STEM scholars read the text based on the reputation of the authors, and they used their previous knowledge of certain terms or concepts to make sure that the reading material (article) relates to their studies. In the social sciences, it was found that individuals appeared to be reading to find epistemological links that might underpin their work, both historical and contemporary, which is contrasted with the hard sciences, where individuals might set themselves goals for reading (McAlpine, 2012).

Considering that there are few comparative studies on disciplinary reading practices, there are even fewer studies that compare the reading practices of NES and EAL scholars. One of the few works that compared how NES scholars based in the centre read as opposed to EAL scholars in the periphery is written by Penrose and Geisler (1994). In their older work, Penrose and Geisler (1994) argued that a key difference between centre and periphery readers is that the centre readers have more confident rhetorical powers that allow them to assess the text's contextuality and critique it with increased capabilities. Periphery readers, on the other hand, tend to treat mainstream scholarly publications as autonomous texts because they do not have a sufficient

contextual understanding of the nature of knowledge construction in mainstream publications. More recent work on the reading environments in the periphery addresses issues related to the disparities in accessing scholarly digital platforms (Barness & Papaelias, 2021).

Linguistic, methodological, conceptual, and ontological challenges were identified as key challenges that face novice researchers and PhD students when preparing to write the literature review section (Chen et al., 2016). Linguistic challenges were reported to concern EAL researchers more in organizing the LR section. For example, writing clear topic sentences to introduce the idea of each paragraph in the LR section and a clear introduction to the overall LR section were identified as challenging for graduate students in studies conducted by Kwan (2006) and Turner and Bitchener (2008), respectively. Locating and identifying relevant literature, sometimes called scoping, was a methodological challenge for novice researchers (Bruce, 2001; Warburton & Macauley, 2014; Wilhelm & Kaunelis, 2005). Novice researchers' lack of awareness of the reflexive nature of LR writing, and how LR serves to unpack and situate the research problem historically and methodologically were reported as key conceptual challenges (Lather, 1999; Kwan; 2006; Chen et al., 2016). The final challenge is an ontological challenge, which captures the complexity of LR reading and writing. Many novice researchers reported a lack of confidence in identifying relevant literature (Warburton & Macauley, 2014). This lack of confidence is often reflected in the LR writing, where many of the disorganized LR writing, which is mistakenly attributed to language issues, often reflects the novice scholars' lack of confidence in their abilities to evaluate scholarly work (Kamler & Thomson, 2008; Kwan, 2006; Chen et al., 2016). In summary, this section has laid an argument about the little work dedicated to exploring how academics read and write the LR section in a journal article, excluding

textbooks. It has also demonstrated the limited comparative works, which examined LR reading and writing practices using linguistic and disciplinary affiliations; thus, highlighting how this study contributes new knowledge to ERPP scholarship by extending and expanding the existing knowledge on LR reading and writing.

2.5 Chapter Two Conclusion

The preceding sections in the previous two chapters have laid a case about the necessity of understanding more critical disparities in global research writing and publishing beyond the limitations of the deficit linguistic binary. This chapter gave an overview of the growing field of ERPP, and it emphasised the ERPP challenges faced by both EAL and NES scholars, noting the limited comparative works on their ERPP practices. To better contextualise the study's comparative investigation and focus on Arabic-speaking EAL scholars, this chapter reviewed the scant studies on them. This chapter concluded by illustrating how there is an agreed-upon understanding of the writing of the literature review section at the conceptual level. Yet, there is little work on how disciplinary variation affects the reading and writing practices in SSH and STEM disciplines. This study's theoretical framework is developed to understand the impact of disciplinary writing conventions on reading and writing practices.

Before introducing the theoretical framework, it is important to explain how the reviewed literature in the preceding sections informed the development of the research approach and theoretical framework. As illustrated in the previous sections, the growing number of EAL academics necessitates a more critical assessment of their participation in the global knowledge construction scene. However, the reviewed literature suggested that many of the ERPP challenges faced by Arabic-speaking scholars, who are the EAL participants in this study, are not related to linguistic disadvantages (Hanafi, 2011; Abdeljaoued, 2018). Instead, most of their critical challenges seem to be related to the

varying disciplinary conventions, which complicate research writing and publishing for Arabic-speaking social scientists more than the hard scientists. This study's approach was motivated by the findings of these investigations, which were corroborated by other ERPP experts, such as Hyland (2016) and Swales (1990), who emphasised the delicate connections between discourse, discipline, and academic writing (Bernstein, 1999), especially when writing from outside the Anglophone sphere (Canagarajah, 2002). These connections became the central premises for the study's theoretical framework, outlined in the following chapter.

Chapter 3: Theoretical Framework

And yet we find the research article, this key product of the knowledge manufacturing industry, to be a remarkable phenomenon, so cunningly encouraged by rhetorical machining that it somehow gives an impression of being but a simple description of relatively untransmuted material.
(Swales, 1990, p. 125)

Since the study's research questions investigate the situated characteristics for preparing and writing the LR section in a journal article and the ERPP challenges experienced by scholars outside the Anglophone world, its theoretical framework employs four interconnected concepts to investigate the variance in disciplinary writing conventions in SSH and STEM disciplines and their impact on ERPP practices for EAL and NES scholars. This chapter begins by outlining how the theoretical framework was developed to address the limited disciplinary comparisons in ERPP literature. After that, this chapter introduces the concept of academic discourse communities to foreground its position on the situated and social interactions in academic writing. Then, this chapter reviews the CaRS model because of its relevance to literature review writing, and it evaluates how its structural conventions can be problematic for scholars outside the centre. After establishing the social and structural aspects of academic writing, this chapter presents Bernstein's work on discourses and language, which is central to the study's investigation of the different disciplinary writing conventions in SSH and STEM disciplines. Finally, this chapter reviews how global academic discourse communities are operationalised under varying geopolitical and material conditions (Canagarajah, 2002).

3.1 Theoretical Framework Development

This section offers a brief synthesis of the previous research on disciplinary writing to foreground how the study's framework was developed to address the limited comparative studies on disciplinary writing in STEM and SSH disciplines. This study was motivated by the understanding that there are more nuanced disparities in research writing and publishing besides the limited linguistic variable, as discussed in the previous chapters. Motivated by its aim of exploring more critical disparities in research writing, this study's focus on disciplinary writing emerged because of the delicate interplay between linguistic practices and disciplinary practices (Hyland, 2004). Thus, examining the role of disciplinary writing conventions on research writing and publishing experiences became a relevant starting point, for this study's exploration of these disparities, considering the wide recognition amongst academics that there is a difference between STEM and SSH disciplinary practices and cultures (Braxton, 1995; Healey, 2000; Lattuca & Stark, 1994; Neumann, 2001; Neumann et al., 2002; Smart & Ethington, 1995).

Despite that it has been the centre of intellectual debates, as Christie and Maton (2011) noted, there are not many investigations of disciplinary writing. Comparative works on disciplinary reading and writing conventions are not abundant, especially those examining these practices in research writing and publishing. The little work that investigated research reading and writing practices for STEM and SSH scholars emphasised how STEM and SSH scholars have distinct reading and writing practices. For example, Latour and Woolgar (1979) observed how the scientists in the Salk Institute for Biological Studies lab “are compulsive and almost manic writers” (p. 48). Bazerman's (1984) study of seven physicists in the US echoed some of Latour and Woolgar's (1979) earlier observations that reading was social for STEM researchers,

meaning they bring their background knowledge to the text. Other comparative studies examined one linguistic group across different disciplines, such as Burgess et al.'s (2014) examination of the writing of Spanish historians and psychologists.

In ERPP literature, disciplinary differences were sporadically studied, yet claimed to be important in determining peripherality in academia (Ferguson et al., 2011; Petric, 2014). As Flowerdew and Habibie (2021) pointed out, the disciplinary culture of major research areas influences productivity (Becher, 1994) and is key to understanding the challenges faced by multilingual scholars (Gnutzmann & Rabe, 2014). It is important to note some of the few studies, which examined disciplinarity and its impact on research writing and publishing. Recently, Ädel (2022) investigated two million RAs examining how multilingual authors (English and Swedish) use the different variations of English (British and American English), and their use of personal pronouns to refer to the authors and audience in three disciplines: history, literary studies, and linguistics. Despite using one textual feature to investigate three disciplines, the study shed important light on the importance of examining the impact of disciplinarity. Other textual studies of disciplinary writing differences (Melander et al., 1997; Shaw & Vassileva, 2009) argued how the highly structured format of the RA provided a “disciplinary mould that transcends national culture” (Dahl, 2004, p. 1822).

The limited studies that addressed disciplinary differences asserted how writers in STEM and SSH disciplines work under different paradigms, which impact their writing and reading practices. These studies identified key rhetorical distinctions between STEM and SSH writing. The most distinct difference is in the scope of rhetorical persuasion in which scientists and social scientists engage with. The scientists work under one paradigm, whereas the social scientists work with “co-existing but competing paradigms” (Parry, 1998, p. 297). On the other hand, writers in the humanities try to

convince their readers of interpretations they had arrived at through personal insight (Purves, 1986). In other words, STEM writers assume that their readers share common knowledge with them, whereas social scientists spend more effort persuading their readers to accept findings or methodologies that are not universally accepted in the discipline (Bazerman, 1984; Becher, 1989). Variation across the hard/soft and pure/applied categories in knowledge acquisition, application, and integration was also noted by Parry (1998) and Nesi and Gardner (2006).

Although it remains limited, recent scholarship on STEM writing has attempted to understand STEM writing in terms of the resources STEM scholars use. Items like the research notebook and the graphs used in STEM writing were examined by Curry and Hanauer (2014). Recently, Canagarajah (2018) documented the experience of an international (EAL) STEM researcher who downplayed the role of language in their research writing, echoing similar results to Huang (2010), whose EAL STEM students downplayed the impact of language. In both studies, the EAL STEM writers sought to improve their spoken English, but not their written English, and both investigators downplayed their participants' accounts about language claiming that they might relate to inferior complexity, which some EAL writers might experience. Canagarajah (2018) was more aware of the complexity of writing in STEM, raising further calls about the necessity of examining it. In fact, recent studies about teaching STEM writing for undergraduate and graduate students still emphasise the need to incorporate teaching writing the RA in STEM curriculum, especially in engineering (Rau, 2021).

The previous section reviewed the scarce studies on disciplinary reading and writing practices, which asserted the growing impact of disciplinary practices on research reading and writing. The section's purpose was to foreground how this study developed its theoretical framework to better understand writing and the specialised languages in

disciplinary discourses, and how they impact research writing outside the Anglophone world, as will be discussed in the following sections. Table 3.1 below summarises the key features of the study’s theoretical framework and the research question it corresponds to.

Theoretical strand	Key features	Research question
<i>Disciplinary writing and academic discourse community</i> (Hyland, 2004)	<ul style="list-style-type: none"> The social aspects of writing and audience interaction The social interactions in writing vary according to discipline and geopolitical position 	RQ1: What are some of the situated characteristics for reading and writing the literature review section in a journal article for EAL and NES scholars in SSH and STEM disciplines?
<i>The research genre</i> (Swales, 1990)	<ul style="list-style-type: none"> The CaRS model emphasises how writers interact with the discourse community The CaRS model identifies some of the structural choices writers make for writing the introduction and/or literature review section in a research article 	RQ1: What are some of the situated characteristics for reading and writing the literature review section in a journal article for EAL and NES scholars in SSH and STEM disciplines?
“Vertical and Horizontal Discourse” (Bernstein, 1990)	<ul style="list-style-type: none"> Vertical discourse takes the form of a coherent, explicit, and systematically principled structure, hierarchically organized, as in the sciences A horizontal discourse entails a set of strategies which are local, segmentally organized, context-specific and dependent, as in the social sciences 	RQ1: What are some of the situated characteristics for reading and writing the literature review section in a journal article for EAL and NES scholars in SSH and STEM disciplines?
<i>The geopolitics of academic writing</i> Canagarajah (2002)	<ul style="list-style-type: none"> Geopolitical location plays a critical role in knowledge construction Inequalities in research writing are manifested in access for material resources 	RQ2: What are some of the ERPP challenges faced by EAL and NES scholars who publish outside the Anglophone sphere in SSH and STEM disciplines?

Table 3.1: Theoretical framework key features

3.2 Writing and Disciplinary Discourses

Despite being at the centre of intellectual debates, it is hard to define the concepts of disciplinarity and discipline—for example, the word disciplinarity does not exist in the 5th edition of the OED (Christie & Maton, 2011). It is indeed hard to define the boundaries and the overall concept of a discipline, as Becher (2001) explained: “The concept of an academic discipline is not altogether straightforward, and it allows room

for some uncertainties of application (p. 41). The works of sociology and history of science show disciplines as organic entities, which morph and go through internal differentiation, expansion, and reconfiguration (Bernstein, 1999; Krishnan, 2009; Kuhn, 1970; Weingart, 2003; Kwan, 2021). However, understanding the discourses of a discipline offers a better way of understanding the already not very straightforward disciplines (Becher, 1994; Frances & Maton, 2011).

Hyland (2014) emphasised that understanding the disciplines involves understanding their discourses for two reasons. The first reason is that any disciplinary discourse is a rich source of information about the social practices of academics. The second reason is that discourse is socially constitutive rather than socially shaped. Writing is not just another aspect of what it does in the disciplines; it is “producing” them [disciplines] (Hyland, 2004, p. 3). The relationship between language, discourse and discipline is not new since the cultural aspects of disciplines, and their cognitive aspects are intertwined, with the written language (Becher, 1994; Wignell, 1997).

3.2.1 Disciplinary writing

Disciplinary discourse has evolved to fund, construct, evaluate, display, and negotiate knowledge, following that science's goal is to add to a body of certified knowledge (Hyland, 2004). Because of diverse social practices, disciplinary discourse is not uniform and monolithic, but it is an outcome of different practices and strategies aiming to conceive and develop a persuasive argument for a particular audience. Thus, disciplinary writing is defined by how it constructs knowledge according to its different appeals to background knowledge, its different means of establishing the truth, and its different ways of engaging with the readers (ibid). This view advances how academic knowledge is both situated and indexical. According to Hyland (2004), it is naïve to

regard texts as an accurate representation of the world because they are constructed through social processes involving authority, credibility, and disciplinary appeals.

From the perspective of the social constructionist, academic texts do more than report research that represents an external reality; they work to transform research findings into academic knowledge. Additionally, in this constructionist view, this knowledge is not a representation of non-human reality but a conversation between individuals and between individuals and their beliefs. This view is best captured in Knorr-Cetina's (1982) observation in a California lab where she claimed that "theory is impregnated" (p. 123). This observation further emphasises the social and situated nature of academic writing.

3.3 Academic Discourse Communities

This section introduces the concept of academic discourse communities, which is essential for this study's examination of how EAL and NES scholars write across the disciplines. First, the section defines academic discourse communities and argues about the value of understanding the role of the audience in them by drawing on the Aristotelian conception of audience. Then, after establishing the audience's role in persuasion strategies, the section concludes by discussing the audience's textual expectations in the RA and how writers mediate these expectations.

A discourse community is a unit of varying magnitude, ranging from theoretical schools within each discipline to the disciplinary groups in a single academic institution (Canagarajah, 2002). The view that knowledge is constructed within social communities drew attention to the homogeneity of disciplinary groups and practices. Foucault (1972) noted how the production of discourse in every society is controlled, selected, organised, and redistributed according to procedures whose role is to avenge danger and evade its ponderous. Becher (1989) and later Swales (1990) viewed

disciplines as tribes with specific norms, bodies of knowledge, conventions and modes of inquiry constituting a separate culture. These cultures have different social and cognitive dimensions offering contrasts in their fields of knowledge, aims, power relations and ways of talking and structures of argument (Hyland, 2004). Bourdieu et al. (1994) noted that these communities concentrate their cultural privilege through the code of their specialised languages.

This well-established consensus on the social aspect of knowledge construction led to the creation of the term discourse community. The term has been used in rhetoric and composition studies in the US when discussing how to prepare undergraduate students for academic writing demands. Patricia Bizzell (1982) discussed academic discourse communities in terms of traditional shared ways of understanding experience in a particular context to identify how writers' rhetorical strategies depend on the purposes, setting, and audience, including shared patterns of interaction (Hyland, 2004). The term has been considered a remarkably fertile term that enables us to go beyond traditional domains like disciplines and to connect intellectual activities to larger communities beyond national/state boundaries (Canagarajah, 2002).

Although the term discourse community has been proven helpful in identifying how writers used their rhetorical strategies in light of their purposes, it has been critiqued. Questions about what creates a community are at the core of the critique of the academic discourse community. For instance, the creation of local groups of readers and writers based on their habitual interaction, and the creation of global communities is often questioned (Hyland, 2004). Others critique it because it assumes restricting discourse communities to specific groups (Harris, 1990 as cited in Hyland, 2004). Finally, others perceive them as structuralist, static, and deterministic, emphasising a stable underlying core of shared values (Chin, 1994; Cooper, 1989).

Despite the term's contention, its emphasis on social interaction in writing made it a powerful term used till today. Its power lies in foregrounding that discourse is socially situated and illuminating something of what writers and readers bring to the text, emphasizing that "composition and interpretation both depend on assumptions about the others" (Hyland, 2004, p. 10). Moreover, there has been great recognition that discourse communities are not monolithic and unitary, and it attracted the attention of several eminent linguists, including John Swales and Ken Hyland. In their views, discourse communities are composed of individuals with diverse experiences, commitments, and influences (Hyland, 2004).

The development of the notion of communities of practice has helped in preserving the power of the older discourse community term. Lave and Wenger (1991) emphasised situated activity and the relations among persons and activity, which helped further ground discourse communities as an important concept in understanding academic writing. According to Hyland (2004), some writing scholars even started employing the metaphor communities of practice to avoid relying strongly on a shared core abstract knowledge and language. Hyland (2004) sums up eloquently that whether it is a discourse community or a community of practice, its use highlights the shifts in the focus from language to the situated practices. Additionally, these two terms have shifted the focus from the abstract ideas of academic writing to the world of concrete practices and social beliefs. In other words, they underscore how "disciplinary discourses involve language users in constructing and displaying the rules and identity as members of social groups" (Hyland, 2004, p. 10).

3.3.1 Audience and the academic discourse community

The concept of discourse communities and the interactions between writers and readers necessitate understanding the audience concept in academic communities. It is arguably impossible to think of academic writing without thinking of the Greek philosopher Aristotle. The role of the audience in academic writing is motivated by the explicit condition of academic writing according to the Aristotelian tradition: persuasion. The concept of audience originated in Aristotle's work *On rhetoric*, which became the basis of the study and teaching of academic writing in the U.S with the growth of the field of rhetoric and composition. Aristotle defines rhetoric as the ability to see what is possibly persuasive in every given case using the three appeals of persuasion: ethos, pathos, and logos (Kennedy, 2007). Ethos refers to the appeal to credibility, pathos refers to the appeal of emotion, and logos refers to the appeal to logic (as can be seen in figure 3.1 below). Thus, in the Aristotelian tradition, the audience plays a crucial role in any persuasive or rhetorical situation as can be seen in figure 3.2. There is a plethora of studies on the role of the audience, ranging from textbooks targeting first-year students learning about the centrality of the audience in persuasion to philosophical works that examine the pragmatic Aristotle, and how he always aimed to outwit the audience (Clayton, 2004).

Amongst the works that assess the role of the audience in research writing is Hyland's (2004) work. Hyland's characterisation of the audience is relevant to this study because it conceives textual meanings as being socially mediated. The social nature of textual meanings is relevant to preparing and writing the literature review section in a research article (RA), which is the subject of this study. Therefore, the section below outlines the textual meanings in a text in relation to their creation within an academic discourse community.

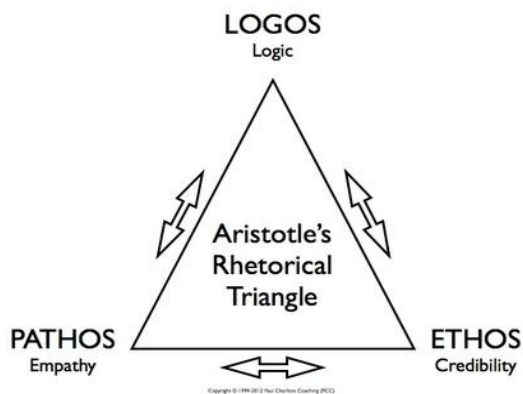


Figure 3.1: Aristotle's rhetorical appeals
Source: How to analyse rhetorically (n.d.)

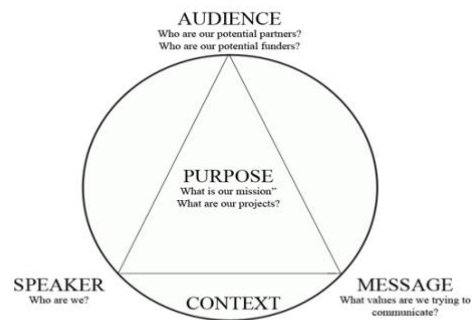


Figure 3.2: The rhetorical situation
Source: How to analyse rhetorically (n.d.)

3.3.2 Social interactions in writing

After establishing that writers belong to different discourse communities with some social characteristics and interaction with the audience, it is important to understand how and when this social interaction happens. In most academic genres, the writer is tasked with convincing peers to assent to a knowledge claim in an RA. Thus, this study adopts Hyland's views that textual meanings are socially mediated and influenced by the communities to which the writers and readers belong. In this view, academic writing is concerned with knowledge making, achieved by negotiating agreements among colleagues. The social interaction in academic writing stems from the writers' attempts to anticipate possible negative reactions to their persuasive goals. In their attempts to persuade, the writers make different rhetorical choices to raise support, resolve difficulties, and avoid disagreements in the closest ways to the community's assumptions, theories, methods, and bodies of knowledge (Hyland, 2004).

Arguably, affective and social interactions are involved in writing, especially in seeking peer agreement because the writers' ability to secure the reader's response is severely restricted. Hyland (2004) argued that social interactions in academic writing stem from the writers' attempts to anticipate possible negative reactions to their persuasive goals. Consequently, the writers make different rhetorical choices to "galvanize

support, express collegiality, resolve difficulties, and avoid disagreements in the closest ways to the community's assumptions, theories, methods, and bodies of knowledge" (p. 13). Hyland (2004) laid out some textual expectations in knowledge-creating genres such as the RA. Hyland argued that these textual expectations are realised in how the writers need at least to establish the novelty of their positions, make a suitable level of claim, acknowledge prior work and situate claims in a disciplinary context, offer warrants to their views based on community-specific arguments and procedures, and demonstrate an appropriate disciplinary method and willingness to negotiate with their peers.

Rhetorical strategies for social interaction are employed to create a persona and appropriate attitudes that are acceptable to both the readers and the discussed information. In Hyland's (2004) terms, writers must make linguistic choices that show their humility and authority as "expert knowers but still disciplinary servants" (p.15). In academic writing, some writers are even taught to demonstrate that their claims display a plausible relationship with reality by using specialized vocabularies and argument forms of the discourse community (Hyland, 2004). Even opposition to statements is expressed in two ways, which reflect the social nature of academic writing. One way to express opposition is by expecting that the audience may reject a statement because it fails to correspond to what the world is thought to be like. In the second way, statements have to show an awareness of interpersonal factors, addressing acceptability conditions, with the writers attending to the affective expectations of participants in the interaction (ibid).

The previous section reviewed how the concept of discourse communities was developed to account for the interactions within a community that shares similar traditions. The section echoed Hyland's arguments about the social interactions in

academic discourse communities, and how they are manifested in textual meanings.

This recognition of the academic discourse community has been clearly articulated in John Swales' (1990) create a research space (CaRS) model. The following section explores the CaRS model because it is germane to any discussion of the structural and rhetorical expectations in research writing.

3.4 The CaRS Model

John Swales (1990) developed the Create a Research Space (CaRS) model, based on a corpus of research articles from the hard sciences, to describe three rhetorical moves for writing the introduction of a research article, as can be seen in figure 3.3 below. Move one is about establishing the disciplinary territory of the writer's work. Move two is about the problem where the writers establish a niche for the work by explicitly evaluating what is presented in move one. Move three is about solutions and criteria of evaluation. An important distinction about this model is how it used many articles from the hard sciences where the "text and the issue are quite intriguing" (Swales, 1990, p.142). Since its inception, the CaRS model has been validated in studies of different research articles in different languages, including English, Spanish, Brazilian Portuguese; Hungarian, Polish, Arabic, and Malay, among many others (e.g., Ahmad, 2011; Árvay & Tankó, 2004; Escudero & Swales, 2011; Fakhri, 2004; Hirano, 2009).

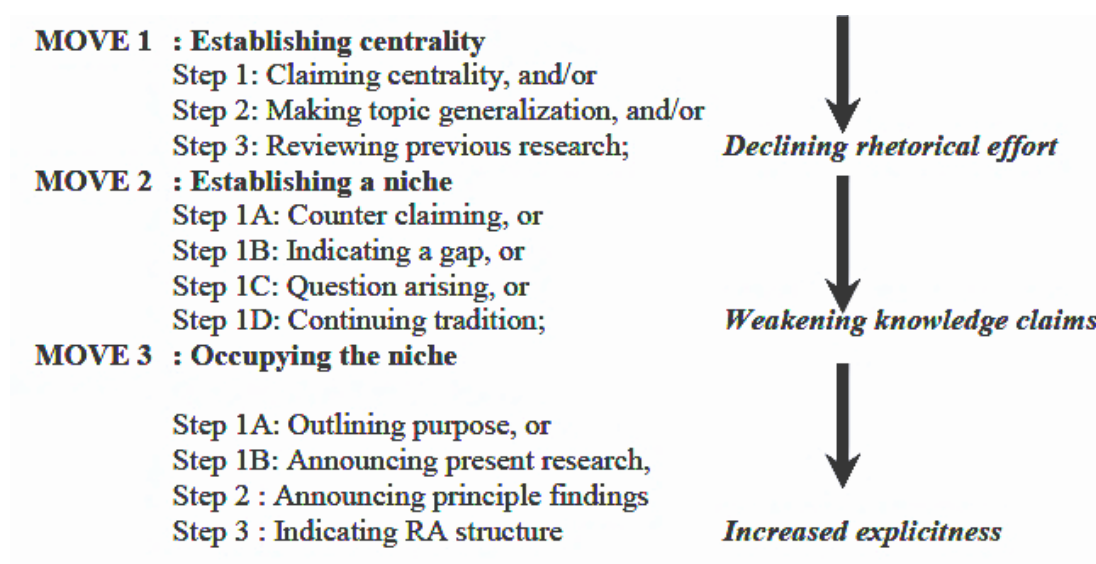


Figure 3.3: Swales (1990) CaRS model

Unlike other studies that conducted textual analysis of RAs using the CaRS model, this study employs the CaRS model to situate its discussion and analysis of preparing and writing the literature review section, considering the steps provided by Swales. In other words, this study does not refer to the CaRS model as a textual or genre analysis tool, but it refers to it in its discussion and analysis of literature reading and writing practices. The CaRS model has been widely used in studies of academic writing despite few critiquing it. For example, it was critiqued for how it does not capture sub-disciplinary variations (Atai & Habibie, 2009), and its opposition structure has been critiqued (Yakhontova, 2006). Still, the CaRS model remains the basis of most studies in linguistics on writing the introduction and literature review sections in an RA. As Canagarajah (2002) noted, the CaRS model has been critiqued by Swales himself and other genre analysts, but it remains the basis of the expectations for writing the introduction and literature review sections in a research article (Flowerdew, 2001). The section below offers an outline of the three moves and a brief description of the steps in moves one, two, and three.

3.4.1 The moves outline

There are three moves and sub-steps in the CaRS model, and each move carries a specific rhetorical weight. In move one, writers are expected to claim centrality and make topic generalizations by reviewing the previous research on their topics. Move one has three steps. Step one is about making centrality claims, which are appeals to the discourse community whereby members are asked to accept that the research about to be reported is part of a lively significant or well-established research talk. Step two expresses, in general terms, the current state of knowledge or the current requirements for further progress. In Swales' model, step three is one of the main occasions where the authors need to relate what has been found or claimed with who has found it or claimed it by providing a specification in varying degrees of detail of previous findings. Move two is known for its cyclical nature since it aims to establish the research's niche (Swales, 1990). In the CaRS model, niche establishment does not occur at the end of the literature review, but it may follow reviews of individual items so that the cycle of moves 1, 2, and 3 occurs. Swales' analysis of the cyclical move argues that different factors drive authors to choose composite or cycling configurations, one of which is the length of the introduction. In addition to length requirements, the perception of the research field influences the cyclical or composite structure of move two. For example, a composite arrangement may work well if the relevant research tradition is viewed as linear and communitive. On the other hand, a cyclical approach may be preferred if a field consists of several loose topics. In Swales' view, the combination of length and diversions may contribute to the simplicity more evident in the social sciences, and brevity is more characteristic of the natural and life sciences and engineering.

Swales (1990) calls move three occupying the niche. The role of move three is to turn the niche established in move two into the research space that justifies the present article. The link between the moves is a strong one. Whenever move two occurs, it offers to substantiate the counterclaim that has been made, fill the created gap, answer the specific question, or continue the rhetorically established tradition.

3.4.2 Deconstructing the CaRS model from the periphery and semiperiphery

The CaRS model could indeed offer an easy way to write the introduction or literature review section in a research article, especially for novice researchers (Kwan, 2006). However, there are tacit challenges with writing the introduction for EAL scholars who write outside the Anglophone sphere and even NES scholars who write from less privileged places in the Anglophone world. The American-dominant rhetorical nature of the CaRS model has been proven problematic for scholars outside the Anglophone sphere. The American marketing discourse in the CaRS model has been pointed out by Mauranen (1993) and later Canagarajah (2002), who realized how writers have to sell their ideas in the CaRS model. One of the complex features in the writing of introductions is how the writers have to show how their papers follow a tradition, yet they have to show how they challenge/critique/transcend the findings of previous studies (Canagarajah, 2002, p.115). Understandably, this marketing or selling tradition is difficult for both novice NES and EAL scholars; however, it is especially difficult for scholars who lack access to material sources or write about local issues to make centrality claims about their topics, as will be explored in the following section.

3.4.3 Centrality claims outside the Anglophone sphere

Move one in the CaRS model recommends making centrality claims, which is a key challenge for many EAL (local) scholars because of their material conditions. One problem with centrality claims that has been identified by Canagarajah (2002), when writing about local issues, is how centrality claims cannot be made about the local contexts. In Canagarajah's (2002) analysis, it seems that local writers give the impression of brief and concise writing favoured by the centre gatekeepers because they move away from social claims of centrality. Material conditions and perspectives have been attributed as a key reason for local writers not knowing how to realize the local issues textually. Another problem with establishing centrality for local scholars is their limited access to resources. Many local scholars have extensive citations in their literature review and introduction sections to compensate for their lack of research resources because they want to establish their authority and familiarity with the discourse community (Canagarajah, 2002).

It is important to note the significance of centrality claims for scholars writing in the social sciences because they are not very common in the hard sciences. Swales' (1990) earlier analysis of centrality claims suggested that they average a little under 50% in the corpus used to develop the CaRS model. It was common across disciplines, although less in the physical sciences. Swales astutely recognised that a possible rationale for avoiding centrality claims in the physical sciences remains unexplored. This study's employment of Bernstein's work on language and discourse aims to help in addressing some of the issues raised by Swales regarding writing in STEM disciplines. More specifically, the study's use of the Bernsteinian view on discourses aims to unpack how writers in STEM disciplines approach disciplinary writing conventions. By examining

the specialized and hierarchal knowledge structures in STEM disciplines, this study aimed to explore some situated characteristics of writing in the hard and social sciences.

3.5 A Bernsteinian view: Discourses and Knowledge Structure

The previous sections reviewed disciplinary writing to situate the study's first theoretical strand (academic discourse community) and the role of the audience in it. After establishing the social aspects of the writing context (discourse communities), section 3.4 established the rhetorical component of the writing context in its review of the CaRS model. These theoretical strands on the social and rhetorical aspects of academic writing are essential for addressing the study's questions about the situated aspects of academic writing. To offer an in-depth understanding of the situated aspects of writing across the disciplines, the following sections offer a theoretical view of the disciplines through the lens of Basil Bernstein's (1990) work on vertical and horizontal discourses. Since Bernstein's theoretical concepts and prose are considerably complicated, the following sections outline the basic premises of his work on discourses and languages by reviewing his classifications of vertical and horizontal discourses, their knowledge structures, and their grammars. The section concludes by establishing how Bernstein's theoretical perspectives on the discourses and languages aid in addressing the study's aims of exploring disparities in knowledge construction by answering its questions about the impact of disciplinary writing conventions on research writing.

3.5.1 Why is Bernstein's work relevant to this study?

Bernstein's work on vertical and horizontal discourses, while complicated, offers a rich view of the discourses, and how they relate to the disciplines. Bernstein's discourse analysis emerged from his work on the theory of the construction of pedagogic

discourse. His work on vertical and horizontal discourses was developed to explain the forms of the discourses, the internal base of their construction, and their social base.

This study's employment of Bernstein's work on vertical and horizontal discourses and his developed modalities of hierarchical and horizontal knowledge structures is grounded on the role of discourses as "socially constitutive" in shaping the discipline (Hyland, 2004, p. 3).

3.5.2 Vertical and horizontal discourses and their knowledge structures

Bernstein (1999) identifies two types of discourse: vertical and horizontal, as shown in figure 3.4 below. These two discourses are defined based on the different forms of knowledge that are realized in the two discourses. Some of these features are oral, local, context-dependent, and specific. Before proceeding with the definitions, it is important to point out that both discourses, vertical and horizontal, have an arbitrary pedagogic base in Bernstein's view. The arbitrary base of both discourses is constructed by distributive rules regulating the circulation of the discourses. Additionally, the social units of the pedagogy of vertical discourse are constructed, evaluated, and distributed to different groups according to the principles of recontextualizing. Finally, "context-specificity is found in horizontal discourse through segmentation" (Bernstein, 1999, p. 161).

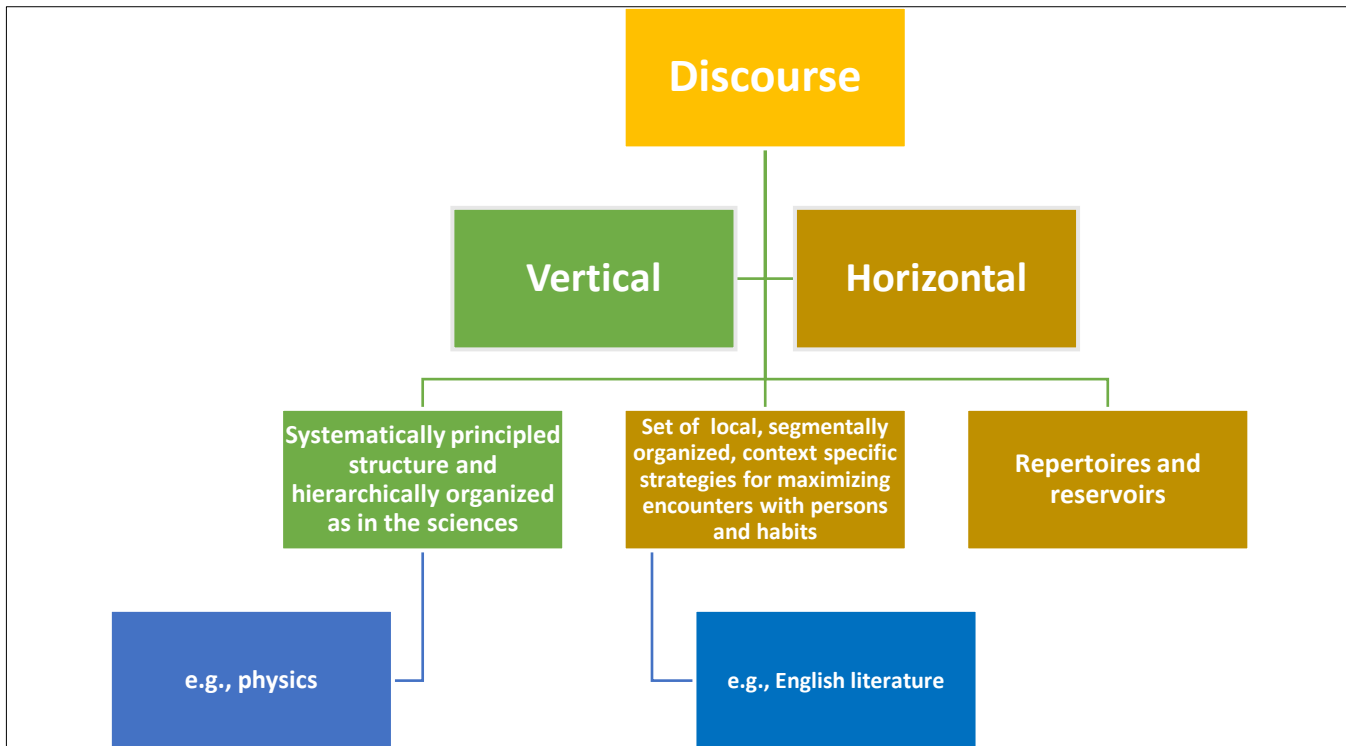


Figure 3.4: Discourses in the Bernsteinian view

Vertical discourse takes the form of a coherent, explicit, and systematically principled structure, hierarchically organized as in the sciences. Conversely, a horizontal discourse entails a set of “local, segmentally organized, context-specific and dependent strategies for maximizing encounters with persons and habits” (Bernstein 1999, p.159). It can take the form of a series of specialised languages with specialised modes of integration and criteria for the production and circulation of the tasks, as in the social sciences and humanities. Bernstein (1999) compares the segmental organization of the knowledges of horizontal discourse to the hierarchical knowledge structure in vertical discourses, as can be seen in figures 3.5 and 3.6 below.



Figure 3.5: Specialized languages in horizontal discourses (Bernstein, 1999)

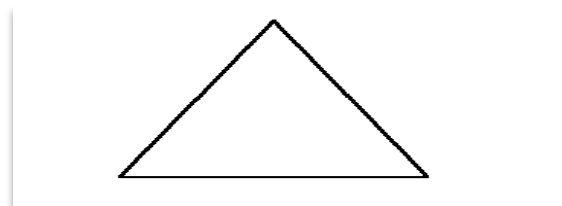


Figure 3.6: Hierarchical knowledge structure (Bernstein, 1999)

The segmental organization of the knowledge in horizontal discourse leads to segmentally structured acquisitions without having a necessary relation between what is learned in the different segments. Therefore, it is possible to have segmental competencies and literacies in horizontal discourses. Bernstein (1999) identifies the segmental competencies as “context-specific, context-dependent, embedded in ongoing practices, usually with strong affective loading, and directed towards specific, immediate goals highly relevant to the acquirers in the context of their lives” (p.161). The segmental nature of knowledge in horizontal discourses means that what is acquired in one segment or context “may not relate to what is acquired or how it is acquired in another segment or context” (p.160). On the other hand, the integration in a vertical discourse is not at the level of relation between segments, as in horizontal discourses, but the integration is at the level of meaning. According to Bernstein (1999), the procedures of vertical discourses are linked to other procedures hierarchically. Hierarchical knowledge structure attempts to create very general propositions and theories, which integrate knowledge at lower levels, showing underlying uniformities across an expanding range of apparently different phenomena (p. 162). Moreover, integrating propositions, operating at abstract levels, drives that integration in hierarchical knowledge.

3.5.3 Hierarchical knowledge structures

In any vertical discourse, which is not a segmentally organised discourse, the integration is not at the level of the relation between segments as in horizontal discourse, but it is at the level of meanings. A vertical discourse consists of specialised symbolic structures of explicit knowledge and not culturally specialised segments. The procedures of vertical discourse are linked, not by contexts, horizontally, but the procedures are linked to other procedures hierarchically. Understanding the pedagogy

of vertical discourse helps in understanding its hierarchical structures since the pedagogy is not consumed at the point of its contextual delivery, but it is an ongoing process for an extended time. Hierarchical structures integrate knowledge at lower levels, showing underlying uniformities across an expanding range of apparently different phenomena. Hierarchical knowledge structures appear, by their users, to be motivated towards greater and greater integrating propositions, operating at more and more abstract levels. Thus, it could be said that hierarchical knowledge structures are produced by an “integrating code” (Bernstein, 1999, p. 163).

3.5.4 Knowledge circulation in the vertical and horizontal discourses

The circulation of knowledge is different in vertical and horizontal discourses as a result of their different knowledge structures. In vertical discourse, knowledge circulation is accomplished through explicit forms of recontextualizing, which affect distribution in terms of time, space, and actors. Vertical discourses have strong distributive rules that regulate access, transmission, and evaluation. Knowledge circulation differs in horizontal discourses due to having little systemic “organizing principles and tacit recontextualization” (Bernstein, 1999, p. 159). The distributive rules in horizontal discourse regulate the circulation of knowledge, behaviour, and expectations according to status and position. Such distributive rules structure social relations, practices, and their context.

3.5.5 Repertoire and reservoir and social relations in a horizontal discourse

Bernstein (1999) uses the terms repertoires and reservoirs to base his discussion of the social relations in knowledge production and consumption in horizontal discourses. He uses the term repertoire to refer to the set of strategies used by any individual in any

community found in a horizontal discourse. Alternatively, he uses the term reservoir to refer to the total set of strategies and its potential for the community (p. 159). In this view, the repertoire of each community member will have a common nucleus, but there will be differences between the repertoires. The development of either repertoire or reservoir depends upon how social relations are structured; the less isolation there is, the more the social potential for the circulation of strategies, procedures, and their exchange. Under these conditions, there will be an expansion for both reservoirs and repertoires since the exchange of strategies will affect the potential of one's repertoire.

On the other hand, the more members are isolated or excluded from each other, the weaker the social base for the development of either their reservoir or repertoire. In Bernstein's (1999) view, the structuring of the social relationships generates the forms of discourse, but the discourse, in turn, is structuring a form of consciousness. The discourse also structures its contextual mode of orientation and realization, which motivates forms of social solidarity. It is important to note that Bernstein (1999) emphasises how pedagogy influences knowledge acquisition in horizontal discourse. He later points out how pedagogic interventions, in turn, are a function of the different "knowledges required to be acquired" (p 160). Bernstein (1999) proceeds to explain that these knowledges are related not by some coordinating principles but through the functional relations of segments or contexts of everyday life.

3.5.6 Development in hierarchical and horizontal structures

In the Bernsteinian view, development varies in hierarchical knowledge structures, according to what they produce. Hierarchical knowledge is developed by producing new theories whereas horizontal structures develop new languages. Bernstein (1999) remarked how development in hierarchical knowledge structures is seen as the

development of theory, which is more integrating and general than previous theories. On the other hand, structure development in horizontal structures cannot be a function of the greater generality and integrating property of the knowledge because what counts as development is the introduction of the new language. In horizontal structures, the new language offers a possibility of a fresh perspective, a new set of questions, a new set of connections, and new speakers to challenge the hegemony and legitimacy of senior speakers (p. 163).

Bernstein (1999) compared the opposition between theories in hierarchical and horizontal knowledge structures, where he pointed out how the opposition between theories in hierarchical knowledge structures is analogous to the opposition between languages in horizontal structures. Opposition between theories in hierarchical knowledge structure is played out in attempts to refute positions where possible, or to incorporate them in more general propositions sometimes. On the other hand, in horizontal knowledge structures, such refutation is not possible because of the discreteness of their languages, which hinders incorporation into a more general language. Bernstein (1999) even claimed that the “protection of languages’ discreteness, strategies of apparent uniqueness, non-translatability, and its essential narcissism is built into these languages” (p. 163).

3.5.7 Strong and weak grammars

Bernstein (1999) uses strong and weak grammars to refer to the conceptual syntax or languages in hierarchical and horizontal knowledge structures. In hierarchical knowledge structures, the strong grammar visibly announces what it is. Bernstein (1999) argues that the passage from one theory to another does not signal a break in the language. Because of its explicit conceptual syntax, it is simply an extension of its

explanatory/descriptive powers. On the other hand, the increase in the number of languages and procedures of inquiry in horizontal knowledge structures in social sciences and humanities provides a dynamic for intellectual change, which impacts how the discourses' languages are read and used. Bernstein (1999) notes that these languages have inbuilt redundancy, which could be called retrospective languages. Retrospective languages are common in the horizontal knowledge structures because their contributors have no means of insulating their constructions from their experience constructed by horizontal discourse. The specialized languages that the speakers, therefore, construct are embedded in projections from the past.

One of the problems of acquisition in horizontal knowledge structure is the range of languages in it, with each having its own procedures. Bernstein (1999) distinguishes two languages in horizontal knowledge structure according to their grammar, as can be seen in figure 3.7. The first is strong grammar, which has explicit conceptual syntax capable of relatively precise empirical descriptions and of generating formal modelling of empirical relations. Weak grammar, on the other hand, lacks empirical references, nor is it designed to satisfy empirical criteria (p. 164).

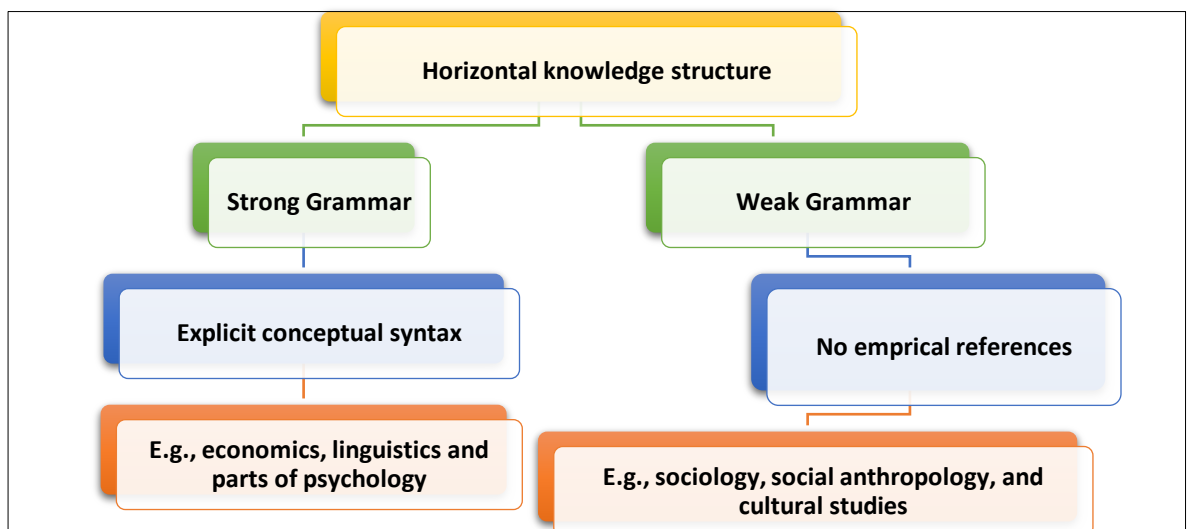


Figure 3.7: Strong and weak grammars

In remarking on how grammar affects the knowledge structures, Bernstein (1999) notes that there will be fewer languages in hierarchal and horizontal knowledge structures with strong grammar. For example, in a hierarchal knowledge structure (like physics), acquirers do not have the problem of knowing whether they are speaking physics or writing physics; they only have the problem of correct usage. However, acquisition problems arise particularly in the social sciences and humanities disciplines when the grammar is weak. Unlike the confident acquirers of strong grammar, the acquirers could be anxious if they are writing or speaking or writing sociology, for instance. In these conditions, the acquirers use canonical names, which will eventually lead the names to be associated with languages. Bernstein (1999) states that managing names and languages together with their criticisms becomes both the manner of transmission and acquisition in languages with weak grammars.

3.5.8 The gaze in the knowledge structures

Bernstein (1999) uses the term the gaze to refer to the social interactions and relationships in the different knowledge structures and their grammars. The gaze can be manifested in how acquirers (researchers) read and process the language of the discourse(s). More importantly, the gaze is manifested differently in discourses with strong and weak grammars. Firstly, in the Bernsteinian view, the gaze does not facilitate the acquisition of knowledge, but it is important to master the procedures of investigation and understanding theory. Thus, the gaze in the hierarchical knowledge structure may entail the principle of recontextualizing or transmission, which is influenced by external pressures. On the other hand, the gaze is embedded in the acquisition of specialized languages in horizontal knowledge structures with weak grammar. In other words, the gaze or the reading practices are different in horizontal

discourses because the acquisition of horizontal discourse is a tacit acquisition of a particular view of cultural realities.

3.5.9 The Bernsteinian view of the disciplines in this study

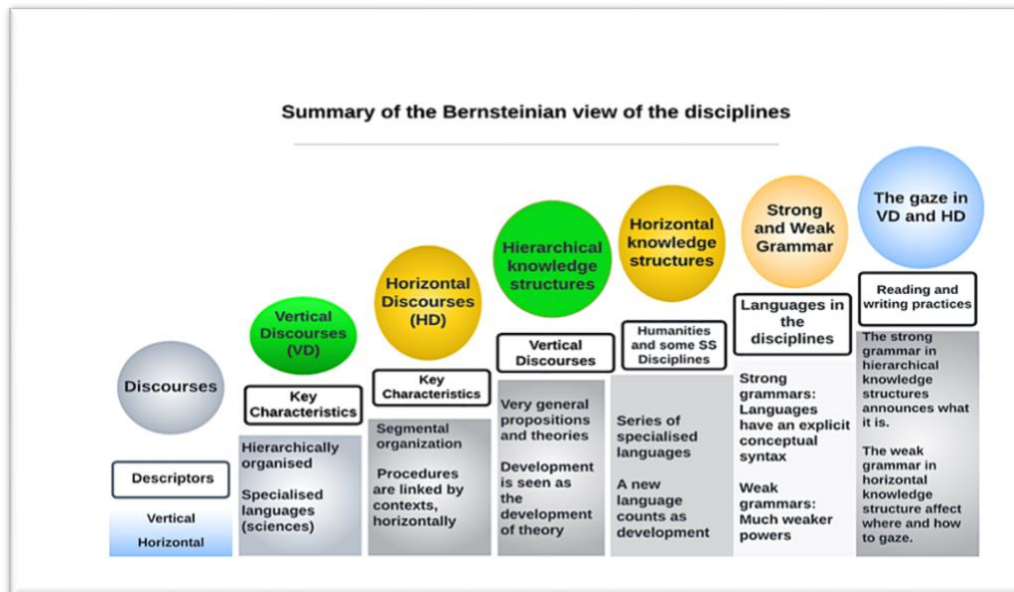


Figure 3.8: Summary of Bernstein's view of the disciplines

The previous sections outlined the key premises of Bernstein's work on discourse, and how it classified vertical and horizontal discourses and their different knowledge structures (See: figure 3.8 above). The distinction between the hierarchically organized vertical discourses (in the sciences) and the segmentally organized discourses in horizontal discourse (in some social sciences and humanities disciplines) is central to this study's investigation of disciplinary writing conventions. More specifically, Bernstein's classification of the general and hierarchical languages in vertical discourses (STEM disciplines) and specialised languages in horizontal discourses (SSH disciplines) are relevant concepts to the study's aims of understanding the disciplinary variance and interactions across disciplines. These concepts are consistent with the study's position about the importance of understanding the discourses to understand the disciplines because any disciplinary discourse is considered a rich source of information about the social practices of academics (Hyland, 2004).

Bernstein's classification of strong and weak grammars in vertical and horizontal discourses informs this study's aim of understanding the situated practices for reading and writing about the literature since it offers new perspectives on the ways in which academics engage with the discourses in their disciplines. Lastly, Bernstein's rich analysis of the different ways in which acquirers (researchers) engage with knowledge in vertical and horizontal discourses intersects with the view that academics work with(in) academic discourse "communities at a particular time and place, and their intellectual climate determines the problems they investigate, the methods they use, the results they see, and the ways they write up" (Hyland, 2004, p. 6).

3.6 Local Knowledge

This section briefly reviews the problematized term local knowledge in the academic sense by examining the formation of the global discourse community, and the tensions within the global discourse community. Local knowledge in the academic sense refers to knowledge that is different from the legitimized paradigms in the disciplines as Foucault (1972) defined it in *Archaeology of Knowledge*. Local knowledge became more explored after Geertz's (2000) book bearing the same title examined how scholars produce works about, and from, their local sites. The key works on local knowledge suggested how generalizations, systematization, colonization, modernity, and globalization have impacted it as argued by Said (1979) in *Orientalism* and later by Spivak (2010).

Because the study is based outside the Anglophone world, examining how the EAL and NES researchers report or write about their local issues is essential to understanding their ERPP experiences. The interest in local knowledge is more critical in the Arab World because most of the research on it is produced outside it even though it attracts global attention (AlMaghlouth et al., 2015; Hanafi, 2011). One of the most pertinent

works on local knowledge has been written by Appadurai (1996), in which he argued how the global has absorbed the local for its own purposes. In his work on recovering the local, Appadurai (1996) has noted how local knowledge has shifted from its geographical grounds because of displacement, deterritorialization and transient populations. Thus, locality is a discourse, and it is a largely discursive discourse, which is similar to Canagarajah's (2002) important reminder that when defining local knowledge, it should be understood as a process of negotiating dominant discourses and engaging in knowledge construction in light of history and social practice.

3.6.1 The global discourse communities

As discussed in the previous sections, the rhetorical conventions in writing the RA are constructive and definitive for the knowledge community. They facilitate the interaction by referencing norms and practices that govern the communication in the RA genre to the point where they can be seen as a "semiotic system" (Canagarajah, 2002, p. 82). Rhetorical conventions provide access and membership into the discourse community because knowledge construction is contextual, with material, historical, and social conditions governing the community's life and the experiences that shape its knowledge" (Canagarajah, 2002). Additionally, the cultural traditions and practices of the community play a part in interpreting social and natural phenomena. The interests, values, beliefs, feelings, and imaginations of the subjects do play a role in knowledge construction. This becomes more complicated by the context-bound textual conventions of the RA. These conventions are shaped by discipline-internal factors, the state of professionalisation, the status of the discipline, and the scholar's identity (Canagarajah, 2002, p. 93).

While the role of textual conventions in facilitating the construction of the discourse community may appear unproblematic in the light of a single community, it has serious implications when considering the relationship between different communities.

Canagarajah (2002) has argued: “Each community struggles not only to maintain its own knowledge (which best suits its interests) but also to thrust itself on other groups in order to legitimize its knowledge as universally valid” (p. 56). One possible source of tension amongst discourse communities is their interest in expanding their sphere of influence by spreading their paradigms, and how they desire those new discourses to be constructed only according to their own terms and conditions (Canagarajah, 2002). This interest, and the possible tension it creates, can be understood through Bernstein’s view of the specialized languages in horizontal discourses.

It is possible to imagine multiple discourse communities with different languages, and how they seek to develop new languages, which then creates more discourse communities with possible weaker grammars. This creation of different discourse communities could be one of the possible reasons that complicate knowledge construction in SSH disciplines. For example, Canagarajah (2002) argues that the hegemony of discourse communities stems partly from their interest in preserving their material resources, which enhance their influences. He even argues that the legitimation and dissemination of the discourse are aimed at preserving the material interests of that community.

One of the key problems with the power held by the global and different discourse communities across the world is in the “epistemological dominance of the western intellectual paradigms” (Canagarajah, 2002, p. 250), which is increasingly reproduced by local scholars who receive their training in the West. The hegemony of the white-Euro-American epistemologies has been addressed in education and applied linguistics

earlier (e.g. Van Dijk, 1993 in sociolinguistic; Kubota & Lin, 2009 in language education). Both sociolinguistic and educational research have uncovered how racism interacts with the ideologies of language and later reproduction of power hierarchies (Kubota, 2020). More recently, Kubota (2020) has explored individual, institutional, and epistemological forms of racism that exclude scholars institutionally and individually if their scholarly engagement is outside the white Eurocentric norms (p. 716). Drawing on Scheurich and Young's (1997) work on civilizational racism, which privileges the modernist assumptions of white Euro-American civilization and positions them as superior to the knowledges embraced by other civilizations, Kubota (2020) redefines epistemological racism. Kubota's (2020) definition captures how the Eurocentrism of knowledge often excludes research focused on non-Euro-American issues produced in non-Euro-American locations, which is similar to Canagarajah's critical observations, about the tensions within the global discourse communities.

3.7 Theoretical Framework Summary

The study's theoretical framework was developed recognizing that disciplinary discourse is the outcome of different persuasive strategies and practices, and that discourse is a rich starting point to understand disciplines and the disparities in research writing and publishing (Hyland, 2004). Building on that recognition, the framework was developed to account for the social, rhetorical, and situated aspects of disciplinary discourse. The first strand of the theoretical framework focused on the social nature of academic discourse in its employment of the concept of academic discourse communities, and how they shift the focus from abstract writing to concrete social practices, which engages the audience. Consequently, the second strand of the framework addressed the rhetorical nature of discourse by employing the Aristotelian rhetorical situation and Swales' (1990) CaRS model to understand the rhetorical

expectations in an RA. The third strand in the framework was developed because of Swales' observation that centrality claims are not very common in the hard sciences. Thus, the study's framework examined the situated aspects of discourse by employing Bernstein's work on discourse in the disciplines. Finally, Bernstein's work on the specialized languages in horizontal discourses suggested that there are some possible tensions with the global discourse communities, and as a result the framework addressed the geopolitical aspects of knowledge construction by employing Canagarajah's work as can be seen in figure 3.9 below.

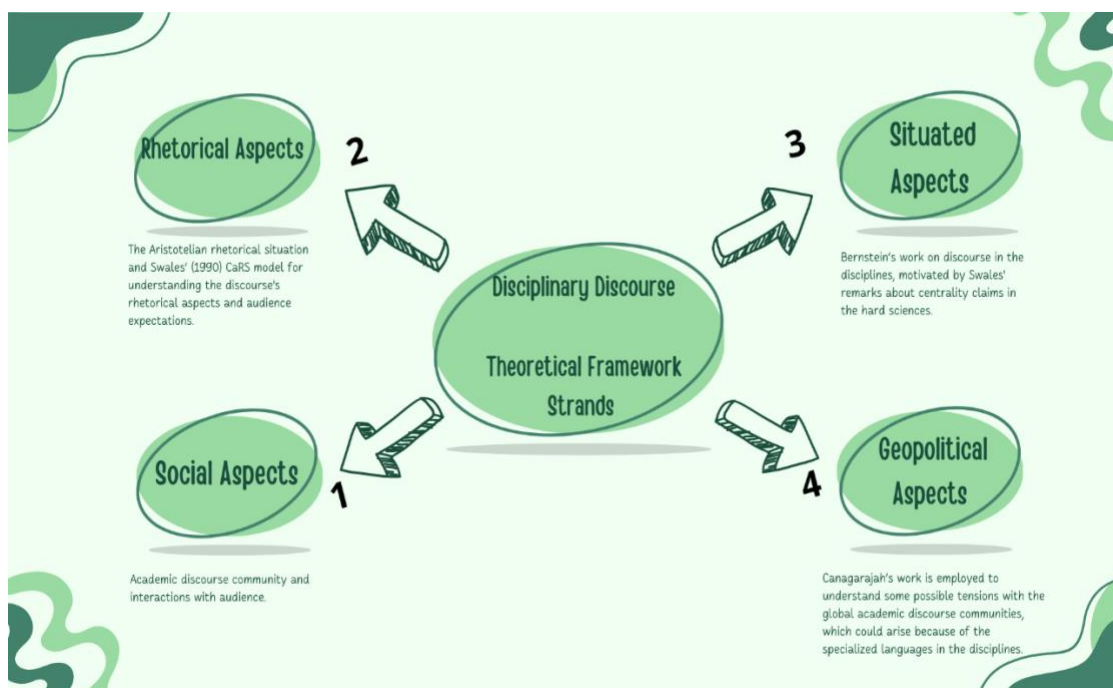


Figure 3.9: Overview of the Theoretical Framework

3.8 Chapter Three Conclusion

As the previous chapters indicated, this thesis adopts the position of the social and situated nature of academic writing, which is a common position in ERPP studies. This study's investigation of the ERPP experiences of EAL and NES scholars, outside the Anglophone world, is related to the study's objective of understanding the validity of

linguistic injustice claims and seeking an understanding of more critical disparities in research writing besides the linguistic variable. More specifically, this study's investigation of the situated writing practices is informed by the theoretical understanding that academic writing is complicated beyond the linguistic aspect because of the different ways in which discourse, discipline, and language interact together.

This chapter began by highlighting the limited comparative studies that examined disciplinary differences, and how the study's theoretical framework was developed to address this gap and answer the study's research question about the situated characteristics of academic writing. The first theoretical strand emphasised the social roles of academic discourse communities in creating and preserving the disciplines. The second theoretical strand identified some of the rhetorical aspects of research writing. The third theoretical strand drew on Bernstein's classification of discourses and their knowledge structures to demonstrate the intricate interplay between language, discourses, and disciplines. The last theoretical strand reviewed some of the inherent problems in the global discourse communities, and how they impact research writing on local knowledge and issues. The theoretical framework has informed the study's research design and data analysis approaches as it sought to answer its research questions by offering dynamic accounts about the ERPP experiences of EAL and NES scholars. The next chapter, Research Design, describes the approach and methods I employed to collect and analyse the empirical accounts of this thesis.

Chapter 4: Research Design and Methodology

“All is data... It is not only what is being told, how it is being told and the conditions of its being told” (Glaser, 2001, p. 145).

This chapter describes the research design by outlining the study’s methodological approach, data generation and analysis methods. To offer a detailed and transparent account of how the study’s research questions were answered, this chapter begins by explaining the development of its research design, the study’s philosophical underpinnings, and the role of reflexivity in this study. Then, this chapter outlines the study's participants’ sampling strategies and profiles. After that, the chapter discusses the study’s data generation methods comprised of qualitative interviews, followed by a review of the institutional and linguistic context of the study. This chapter concludes by focusing on the ethical considerations of this study.

4.1 Research Design

4.1.1 The study’s background

In the academic year 2018-2019, I received a university research grant to perform bibliometric analysis of the research outputs produced across the university, in which the study was conducted. Because of the interest in learning about the outcomes of the bibliometric study, I had exchanges with different stakeholders in the university, who were keen on learning more about the study’s outputs, in order to improve the research environment and infrastructure in the university. I was particularly intrigued with how several stakeholders often assumed that the NES academics, employed in the university, are expected to outperform their EAL peers.

The stakeholders' expectations about the superiority of the NES academics, in terms of the number of their published research outputs, became more intriguing for me when they were contradicted by the bibliometric data found in the study. The bibliometric data suggested how the EAL academics outperform their NES peers in STEM disciplines. These exchanges and remarks about the assumed privilege of the NES academics became the starting point for me to think more critically about the necessity of developing comparative, empirical accounts that explore research writing and publishing practices for EAL and NES academics across the disciplines, considering the lack of such comparative inquires.

4.1.2 Developing the Research Design

This study explored the research writing and publishing practices for English as an additional language (EAL) and native English speakers (NES) scholars by examining their literature review reading and writing practices across social sciences and humanities (SSH) and STEM disciplines. This study's exploration of some of the situated characteristics of literature review reading and writing practices addresses the lack of empirical, comparative work that assesses research writing practices for EAL and NES scholars in the ERPP scholarship. Table 4.1, below, includes the study's research questions, which illustrate the study's approach, and the datasets used to address the study's research questions.

Research questions	Dataset
1. What are some of the situated characteristics for reading and writing the literature review section in a journal article for EAL and NES scholars in SSH and STEM disciplines?	Interviews (<i>n</i> = 22)
2. What are some of the ERPP challenges faced by EAL and NES scholars in SSH and STEM disciplines who publish outside the Anglophone sphere?	Interviews (<i>n</i> = 22)

Table 4.1: Datasets used in addressing the research questions

The initial motivation for this study was to offer a comparative account of the ERPP practices of EAL and NES scholars in SSH and STEM disciplines to explore the claims of linguistic injustice in more meaningful and critical ways. More specifically, this study was developed to understand the situated circumstances that impact research writing and publishing to better understand and address linguistic injustice claims. As the study's research questions coalesced around exploring the situated nature of the writing practices for EAL and NES scholars in SSH and STEM, considering the best data generation methods to answer the study's research questions became necessary. Firstly, error analysis, which is commonly found in the comparative studies that examine L1 and L2 writing at the undergraduate and graduate levels (Atkinson & Ramanathan, 1995; Hirose, 2003; Martínez, 2018; Hanauer & Englander, 2011; Hanauer et al., 2019) were decided to be unsuitable for this study since they only focus on the linguistic variables (errors) and not the other situated variables, such as reading, that impact research writing and publishing. Secondly, surveys were considered inappropriate to assess perceptions and experiences of linguistic injustice, as asserted by Bentley and Kyvik (2011), Bocanegra-Valle (2014), Hultgren (2019), and Hyland (2016).

Consequently, qualitative interviews became necessary to offer a better description of the situated nature of the writing and the ERPP challenges facing EAL and NES scholars outside the Anglophone world. As the study's design was developing, it maintained refraining from limiting its comparisons to the textual features commonly found in comparative studies examining the writing of L1 and L2 students at the undergraduate and graduate levels. In short, a key distinction in this study is in how it relies on the interviews, which correspond to the study's ontological approach

regarding the social nature of writing, and the study questions about the different disparities in research writing beyond the linguistic variable.

4.2 Philosophical Underpinnings

Consistent with the study's theoretical framework, which emphasises the situated nature of academic writing, the study's methodological design is rooted in the social constructivist position. This position assumes that learning occurs in social and cultural settings rather than solely within individuals. Unsurprisingly, this position is very common in ERPP scholarship since most ERPP studies are concerned with academic writing for publication purposes, which is not formally taught but acquired through practice. The study's position on how discourse is socially constructed has informed its design, methodology, and approach.

As an Arabic-speaking EAL teacher and researcher, I view language and discourse as social constructions with multiple meanings. Considering the subjectivity of my participants' individual experiences as researchers and writers, the study's informing interpretivist-constructivist paradigm reflects my interest in the participants' perceptions of their research writing practices and experiences. Additionally, this paradigm gave rise to my reflexivity as a researcher and a member of the same institution where the participants work. I found the interpretivist-constructivist paradigm to accurately represent how I, as a researcher, relied on the "participants' views of the situation being studied" (Creswell et al., 2003, p. 8) while also acknowledging and reflecting on the impact on the research of my own background and experiences.

This paradigm recognizes that meaning is multiple, socially situated, and varied (Creswell, 2009). Interpretivist researchers try to position themselves within the research by recognising how their backgrounds influence their interpretations of the

data (Cohen et al., 2000; Creswell, 2009). Thus, a complete description of a phenomenon should include the full range of perceptions existing in the study population. The methodological approach of this thesis was one of discovery, using an inductive approach that allowed findings about participants' ERPP practices to "emerge throughout the data generation and analysis process" (Case & Light 2011, p. 18) while remaining reflexive about my role as a researcher.

4.3 Reflexivity

In qualitative research, reflexivity is an essential principle (Cohen et al., 2000). During the research process, I was particularly mindful of how some qualitative researchers assume the authority to represent their participants without discussing their own identities, and the criticism of these researchers (Creswell, 2017; Pring, 2004). Additionally, I was worried about my own critical subjectivity and the complications of speaking about those whose voices are often not heard in the pages of research. I was concerned about becoming a ventriloquist similar to Sandelowski's (2006) warning about qualitative researchers. Consequently, I have strived to establish a reflexive relationship with the methodological process itself by constantly addressing the assumptions originating from my background experiences, and the knowledge, which underlie the research decisions throughout this study.

I have spent more than ten years teaching academic writing for EAL and NES students after getting my MA degree in rhetoric and composition, and thus I was particularly conscious of how my writing knowledge as an EAL Arabic-speaking writer and teacher could influence the research process. Following Maxwell's (2012) recommendation of critical subjectivity, in which he warns qualitative researchers about the importance of understanding their own subjective experiences, I have developed reflexive accounts of how my subjective experiences with the methodological process and recorded them in

research memos. Also, I finished the data collection by August 2020 and started the data analysis in January 2021 as I took time off because of the COVID-19 pandemic. This intercalation allowed me to revisit the data more sensitively while being conscious of my intentions and subjectivity as a researcher.

4.4 Pilot interview design

Pilot interviews were used to refine the final interviews. At the beginning of January 2020, I conducted and analysed three pilot interviews. The decision to organise pilot interviews was influenced by Åkerlind's (2008) doctoral work, in which pilot interviews were used to develop the interview questions. Following what Åkerlind (2008) has done in her doctoral thesis, the transcripts were read in conjunction with my two doctoral supervisors. This reading aimed to examine whether the interview questions were eliciting variations in views across the pilot interviews. After concluding the pilot interviews, the study's design was developed to include semi-structured interviews.

4.5 Participants

To better understand the ERPP experiences of EAL and NES scholars, the study aimed to recruit participants with enough experience in research writing at different levels, varying from very experienced (professor) to early-career researchers (assistant professor and senior lecturers). The invited participants were drawn from a cohort (N = 371) of full-time faculty employed at the university, in which the study was conducted. The participant cohort was identified using a purposive selection strategy, which is used in qualitative research to select units with a particular purpose to answer a research question (Teddlie & Tashakkori, 2009).

The participants' selection aligned with Maxwell's (2012) observation that "particular settings, persons, or events are deliberately selected for the important information they

can provide that cannot be gotten as well from the other choices” (p. 97). In that respect, the study’s recruitment decisions were made to include EAL and NES participants in SSH and STEM disciplines. Thus, the study employed purposeful sampling by contacting participants with different levels of familiarity with research writing and publishing. This sample aimed to explore the full range of variation in the studied ERPP experiences (Booth, 1997). Purposive sampling was used to generate data that reflect the diversity of the population to investigate a wider range of ERPP experiences.

Before contacting any participant, the participants’ profiles on their university’s website were checked to become familiar with their research activity. After that, a search of their records on Google Scholar was performed to become more familiar with their research outputs, which are not always included in their university research profiles. The demographic variation in the participants’ sample was to increase the chances of considerable variation in the phenomenon being examined Åkerlind (2006). Thus, the sample includes a variety of disciplines, and its participants have varying experiences in research publishing in English.

The variance in the numbers of EAL and NES participants is a result of the number of participants who agreed to participate in the interviews after the outbreak of the COVID-19 pandemic. I initially contacted 24 EAL and NES participants, equally distributed between SSH and STEM disciplines. However, some participants who agreed to be interviewed in February and March 2020 asked to postpone the interviews because they were concerned about meeting on the early days of the pandemic. In April 2020, two participants (one EAL and one NES) sent their regrets about the interviews citing the ongoing pandemic as a reason. Consequently, the sample size became 22

participants, equally divided between SSH and STEM groups. While I tried contacting other EAL and NES participants over 2020 summer, only one EAL participant agreed to be interviewed in August 2020.

EAL; SSH

Participant	Gender	Discipline	Native Language	Rank
1	M	Media and Mass Communication	Arabic	Professor
10	F	English Literature	Arabic	Assistant Professor
11	M	Linguistics	Arabic	Associate Professor
15	M	Media and Mass Communication	Arabic	Assistant Professor
17	F	Arabic and Translation Studies	Arabic	Associate Professor
21	F	Finance	Arabic	Professor

Table 4.2: EAL participants in social sciences and humanities disciplines

NES; SSH

Participant	Gender	Discipline	Native Language	Rank
2	F	Management	British-English	Associate Professor
4	F	Psychology	American English	Associate Professor
6	M	Psychology	American English	Associate Professor
14	M	Marketing	British -English	Professor
18	M	History	American English	Associate Professor

Table 4.3: NES participants in social sciences and humanities disciplines

EAL; STEM

Participant	Gender	Discipline	Native Language	Rank
5	M	Chemical Engineering	Arabic	Professor
12	M	Environmental Science	Arabic	Associate Professor
19	F	Industrial Engineering	Arabic	Professor
20	M	Chemistry	Arabic	Professor
22	F	Civil Engineering	Arabic	Associate Professor

Table 4.4: EAL participants in STEM disciplines

NES; STEM

Participant	Gender	Discipline	Native Language	Rank
3	M	Marine Science	American English	Professor
7	M	Mathematics	British-English	Associate Professor
8	F	Environmental Science	American English	Senior Lecturer
9	M	Chemical Engineering	British-English	Associate Professor
13	F	Microbiology	British -English	Professor
16	M	Mathematical Sciences	British -English	Assistant Professor

Table 4.5: NES participants in STEM disciplines

4.6 Data Generation

The study's design is largely influenced by the debate in ERPP scholarship about the limitations of qualitative and quantitative methods. For example, Hyland (2016) and Hultgren (2019) noted how surveys about the ERPP practices of EAL scholars offer a mixed picture of these practices, and, in other instances, they reflect the context-

dependent nature of attitude surveys and how they elicit attitude data. More importantly, the study's comparative design was motivated by the lack of comparative studies that investigated the ERPP practices of EAL and NES academics. Thus, the study aimed to address the methodological limitations noted by key ERPP scholars by employing qualitative methods, as can be seen in the data generation schedule below in table 4.6.

Data	Date Range	Datasets
Semi-structured interviews	January-April 2020	23
Semi-structured interview	August 2020	1

Table 4.6: Data generation schedule

4.6.1 Semi-structured interviews

The motivation for conducting semi-structured interviews was because interviews offer an appropriate methodological opportunity to pursue the experiences of an individual. Usually, semi-structured interviews follow an outline developed by the researchers, yet their success depends on how the interviewer employs their experience and intuition in the unique context of each interview (Isaac, 2021; Maxwell, 2008). I was able to raise clarifying questions to check the meaning or interpretation of an answer received in the interviews because the interview questions were about research writing and publishing, which are my teaching and research areas. The primary goal of the interviews was to encourage the participants to reveal ways of understanding their own reading and writing practices for publishing purposes. A secondary goal was to encourage the participants to reveal their understating of the role of English and disciplinary backgrounds and publishing demands in their ERPP practices.

The interview questions asked the participants about their ERPP practices and writing literature review sections in particular, which meant more focus on their reading and writing practices. The interview questions consisted of three strands. The first strand was about the overall conventions of reading and writing the literature review in a

research article, as experienced by each participant, to learn more about the participants' ERPP practices according to their disciplinary affiliations. The second strand was about the literature review writing practices across the disciplines, and the third was about the ERPP challenges faced by the participants when trying to publish their research, as can be seen in the interview guide in appendix one. The interviews were conducted in English, which is the default academic language for the Arabic-speaking EAL participants. Notably, the EAL participants did not use any Arabic word during the interviews, and when they referred to Arabic-language writing conventions, they referred to them in English. The interview duration was around 50-60 minutes.

The interview questions included structured, contextual, and open questions. The questions focused on contextualised and specific experiences instead of general attitudes to generate relevant accounts that can answer the study's research questions. This practice is in line with Brinkmann and Kvale's (2015) advice about the importance of anchoring the interview in specific and authentic contexts. The structured questions consisted of contextual questions and primary questions. The contextual questions were designed to set the scene for the primary questions by encouraging the participants to reflect on their experience of preparing to read and write the literature review section in a journal article. The contextual questions also aimed to make the transition between questions more meaningful. Open questions about the meaning of the phenomena and questions asking for concrete examples were asked. The follow-up questions were asked to provide further elaboration on the topic or to check the meanings the interviewees associated with keywords or phrases they used.

Measures were taken to maximise the responses elicited from the participants by conducting text-based interviews. One day before the interview, I emailed each participant their most recent journal article and asked if they would like to provide

another literature review (LR) section or a research article (RA) to be used in the interview. During the interviews, questions were asked about LR in general, and these artifacts were useful in encouraging the participants to elaborate more on their reading and writing practices. Using these artifacts, I asked specific questions about their time preparing for reading and writing the LR sections. I asked about the overall challenges they faced with the LR section. Finally, I asked about any specific ERPP challenges related to the artifact. Any decision to probe in the interviews was based on me not understanding the intention underlying something the participants said. The probing questions were asked by asking for clarification on words that seemed to be meaning-laden or asking to relate something that has been expressed earlier with something that was said recently. The probing stopped when I felt the interviewees expressed meaning or when the participants started repeating themselves.

4.7 Data Analysis

The data analysis took place after the completion of the data generation, and it intersected with the study's theoretical framework and research questions. After the end of the data generation, I started listening to the interviews' recordings and reading the transcripts to 'get a feel' for the data as a whole as suggested by several qualitative researchers (Creswell, 2017; Friese, 2019; Teddlie & Tashakkori, 2009). At the beginning of the data analysis phase, I read each interview transcript separately to develop codes out of the participants' words, phrases or sentences. This iterative data analysis process allowed me to mark 'utterances found to be of interest' for the question being investigated and to attend closely to the participants' experiences (Matron, 1986). After finishing the individual reading, the interview transcripts were treated as a whole within a framework of codes created out of the participants' words, phrases or sentences, which facilitated understating the participants' ERPP experiences.

The study's theoretical framework informed some of the decisions in the coding and categorization of the code groups. The interview transcripts were categorized according to the participants' disciplines and languages. The main strategy for analysing the qualitative data of the research was by thematic analysis incorporating the coding and categorising data to develop themes (Braun & Clarke, 2012). Thematic analysis was used to "see and make sense of collective or shared meanings and experiences" (p. 57), as outlined in the following section.

4.7.1 Inductive thematic analysis

The research design employed a thematic analysis approach to analyse the qualitative interview data. Thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data (Braun & Clarke, 2006). Holton first developed the method in the 1970s, and it has been accepted as a "distinctive method with a clearly outlined set of procedures in social science" (Braun & Clarke, 2013, p. 178). Thematic analysis helps capture complex, messy, and contradictory relationships that prevail in the real world while analysing almost any kind of qualitative data (Attride-Stirling, 2001; Braun & Clarke, 2013; Damayanthi, 2019). According to Braun and Clarke (2013), thematic analysis involves seven steps: transcription, reading and familiarisation, coding, searching for themes, reviewing themes, defining, and naming themes, and finalising the analysis.

In this study, familiarization with the data took place during the transcribing process because listening, typing, and correcting the transcripts helped in familiarizing the researcher with what the interviewees said. After becoming familiar with the data, I started reading and annotating the transcripts with analytical sensibility. Braun and Clarke (2013) define analytical sensibility as the skill of reading and interpreting data

through the chosen theoretical lenses. Reading, re-reading, and keeping records on noticeable aspects of the data was done on the data itself, as a note on the quotes. Although the annotated reading was done to understand the data, it did not happen in a vacuum, as parts of the familiar theoretical lenses used to discuss writing were in the back of the researcher's mind. Table 4.7 below outlines the thematic analysis steps and actions, which will be further discussed in the following sections.

Step	Actions
1. Transcription	<ul style="list-style-type: none"> The interviews were transcribed after the end of the data collection
2. Reading and familiarization	<ul style="list-style-type: none"> Multiple reading rounds happened during and after the transcribing process The initial reading rounds involved some precoding before the coding process with an annotated reading The reading was without clear theoretical grounds, but not in a theoretical vacuum "Analytical sensibility" reading was performed after precoding the data to help become more familiar with the data before the start of the first coding cycle (Braun & Clarke, 2013)
3. Coding	<ul style="list-style-type: none"> The first round of coding was descriptive (semantic), with 897 codes generated, which were later categorized The second coding cycle was latent
4. Searching for themes	<ul style="list-style-type: none"> Themes were identified according to repetitions, comparisons and theory-related coded materials
5. Reviewing themes	<ul style="list-style-type: none"> Themes were reviewed and examined against the coded data
6. Defining and naming themes	<ul style="list-style-type: none"> Themes were named according to their semantic and/or theoretical values
7. Finalizing the analysis	<ul style="list-style-type: none"> The analysis was performed after developing the study's theoretical framework

Table 4.7: Thematic analysis steps and actions

4.7.2 Transcribing and coding the interviews

Transcribing and coding the interviews was an iterative process that aided in establishing the study's rigour and reflexivity. After conducting the 22 interviews, they were transcribed and deidentified, and the transcripts were revised for accuracy. Then, the interview transcripts were uploaded to ATLAS.ti software for qualitative data analysis because of its multiple features for grouping and visualising themes. First, once each transcript was complete, I annotated it with a short description of each participant according to their linguistic denotation (EAL or NES) and their disciplinary affiliation

(SSH or STEM). Second, the transcribed interviews were read and re-read line-by-line to engage deeply with the data and to develop an understanding of its nuances. The iterative process of reading, writing and reflexivity provided a detailed and in-depth description of experiences while establishing research rigour and trustworthiness. Each interview was coded separately.

The interview data was coded over two rounds following an inductive thematic approach. Coding refers to identifying all relevant pieces of data within the entire dataset to answer the research questions. According to Braun and Clarke (2013), “a code is a word or brief phrase that captures the essence of why you think a particular bit of data may be useful” (p. 207), which is similar to Johnny Saldaña’s (2013) definition of a code as “most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (p. 4). In Saldaña’s (2013) definition, a code is “primarily an interpretive act” meant to be “the transitional process between data collection and more extensive data analysis” (pp. 3- 4). Taking an inductive thematic approach, the data coding followed a series of open and selective coding that developed through the reflective immersion with the data and my growing insights about the research topic. Although this form of inductive thematic analysis is data-driven, the researcher conducting inductive thematic analysis is not free from theoretical commitments and must have themes developing under the influence of a researcher's presuppositions (Braun & Clarke, 2006). Thus, the coding process occurred in two rounds, with multiple stages in each round, and research memos were kept to record the coding process.

The coding process started with line-by-line coding of the data until no new codes emerged from the data, and the dataset resonated with the existing codes. After that, all the coded interviews were reviewed and re-read several times, followed by a

visualization of the coded data to ensure that the created codes accurately described the coded data. The powerful coding and visualisation features in ATLAS.ti expedited the identification of themes and the essence, which emerged from the data (Cameron et al., 2001) and were not extracted by force or effort, providing in-depth insights into the participants' reading, writing and ERPP experiences. Up to this point, Braun and Clarke's (2006) seven phases of thematic analysis were primarily employed to code and analyse the data, as will be shown in the following section.

The first coding cycle took place over three phases. Using ATLAS.ti, the first round of coding was descriptive. It coded the interview data line by line to provide a "succinct summary of the explicit content of the data" and generated semantic codes (Braun & Clarke, 2013, p. 207). The initial coding was descriptive, and it generated 897 codes following its structural coding approach (Saldaña, 2013). These codes were used as a heuristic (from the Greek, meaning "to discover") – an exploratory problem-solving technique without specific formulas to follow (Saldaña, 2013). The first round of coding was the first step to lead to a more rigorous and evocative analysis and interpretation. The first round as a heuristic led to a better understanding of the data and conquest linking from the data to the idea (Saldaña, 2013). In the first coding round, as part of the cyclical nature of the coding step, similar coded data was categorized under different categories and subcategories using ATLAS.ti. A codebook was developed and used to maintain the data. Each code was defined and named. Figure 4.1 and 4.2 below include excerpts from the codebook and networks to show how the codes were named, defined, and later grouped under relevant groups/nodes/networks.

1.1: Publishing language	5	6.1.0: LR Reading	104
1.2: Publishing articles	21	6.1.1: Stopping to read for LR	5
1.4: Editors	6	6.1.2: Number of read articles	3
1.5: Reviewers	31	6.1.3: Laser focused LR reading	4
1.6: Rejection	16	6.1.4: LR iterative reading	2
1.7: Citations	13	6.1.5: Reading outside the discipline	2
1.8 -: Publishing faulty research	2	6.2.1: Familiarity with the literature during the search process	20
1.9 -: Publishing in Arabic	5	6.2.2: Not being familiar with the literature	8
1.10: Interest	15	6.2.3: Becoming familiar with the literature	6
1.11 (+): Time	26	6.3: Reading papers that cite key papers	1
1.12(-): Research environment	11	6.4: Reading startegy	19
1.13: Research resources (LITERATURE: ARTICLE AND BOOKS)	9	6.5.0: LR Reading : what to read for	7
1.14.1(-): undergraduate students	6	6.5.1: What to look for in LR? Novelty	12
1.14: Working with graduate students	10	6.5.2: What to look for in LR? Methods	5
1.15: Conferences	6	6.5.3: Reading LR with RQ in mind	6
1.16: Teaching universities and research	5	6.5.4: What to read for? Being part of the scientific community	2
1.17: Gatekeepers	3	6.5.5: What to read for? Support thesis, argument and claims	15
1.19: (+) research drivers	3	6.5.6: What to look for in LR? Counterarguments	8
1.20: (-) Funding challenges	4	6.5.6: What to look for in LR? defining the research problem	2
1.21 Research network	4		
1.22: Research trajectory	2		

Figure 4.1 Codebook excerpts

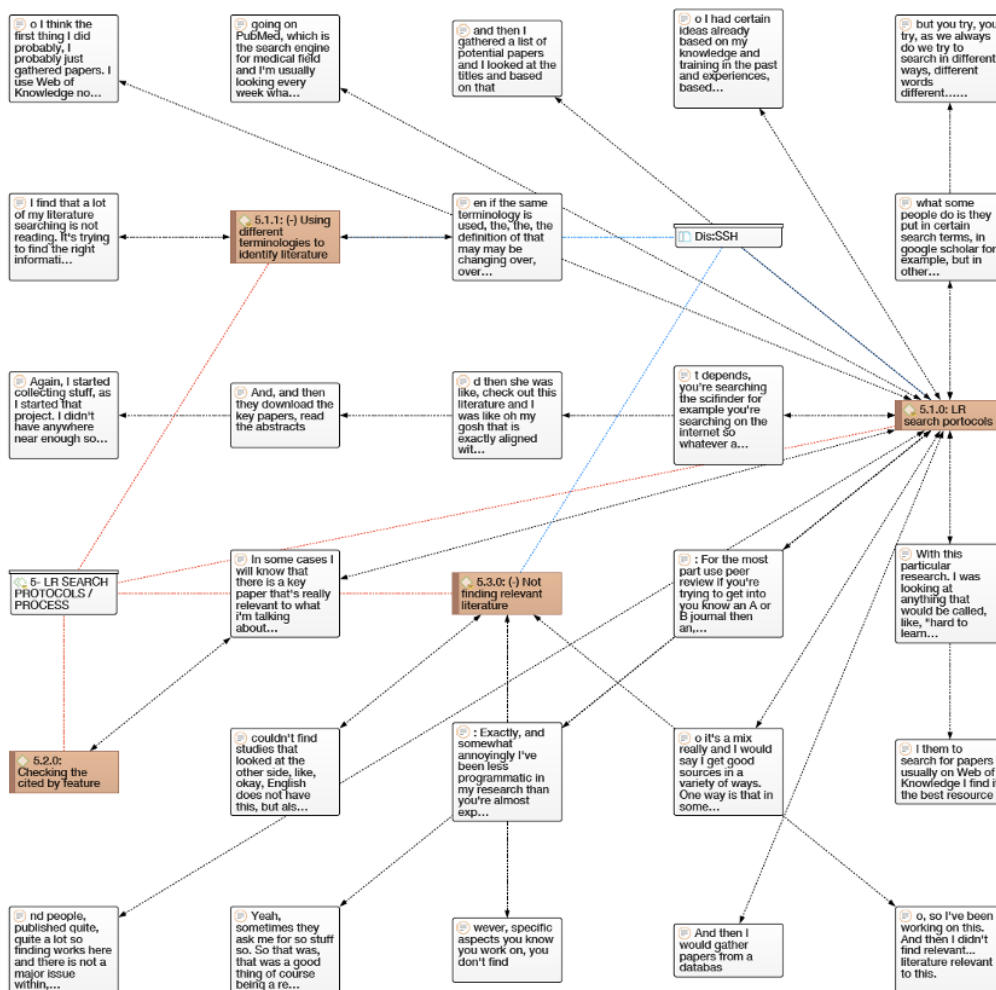


Figure 4.2 Network excerpts, Atlas TI.

The second round of coding generated both semantic and latent codes. The second coding phase applied structural coding for the data to identify larger segments of the data. By labelling and indexing the data, the structural codes were used to form the basis for in-depth analysis (Saldaña, 2013). The latent codes attempted to present the data in light of the theoretical lenses underpinning (Brauns, Clarke, & Terry, 2014). However, during the two rounds of coding, I remained open to adding new codes.

An analytic memo was kept from the start of the data generation. The analytic memo addressed different aspects at different stages of the data collection and analysis process(s). During the data collection phase, the analytic memo reflected on how I related to the participants and some aspects of the phenomenon they addressed. During the coding stage, the analytic memo helped in reflecting on the codes and their definitions. Similar to what Saldaña (2013) noted, the analytic memo facilitated the creation of the codebook because writing memos on codes helped in drawing and filling out the analytic properties of the descriptive data. At the beginning of the analysis phase, the analytic memo reflected on the study's research questions. Later, it reflected on identified patterns, categories, themes, and concepts using the network features in ATLAST.ti. During the later stages of the study, analytic memos, by using the linking features on ATLAS ti., served in reflecting on and writing about the possible problems with the study and its future directions.

4.7.3 Searching for themes

A theme is an outcome of coding, categorisation, and analytic reflection, not something that is, in itself, coded. A theme captures and unifies the nature or basis of the experience into a meaningful whole (Saldaña, 2013). Different techniques were used in this study to identify themes. Firstly, repetitions were used to identify the themes (Ryan

& Bernard, 2003). Secondly, after reviewing the coded data, similarities and differences were used to make systematic comparisons and contrasts between the coded data. Thirdly, theory-related material was used to identify indigenous themes (Ryan & Bernard, 2003, p. 39). Appendix two summarises the themes and how they were developed using many codes.

4.8 Research Design Trustworthiness and Authenticity

In the interpretivist paradigm, research quality is measured by the trustworthiness and authenticity that researchers establish through the research design process and the phases of data collection. The researcher's reflexivity, employing appropriate methodology, data generation methods, and theoretical triangulation ensure the trustworthiness of the research design and its data. For establishing credibility in the research findings, researchers need to triangulate and ensure deep engagement with the data. By using multiple methods, the researcher strives to decrease the "deficiencies and biases that stem from any single method" (Mitchell, 1986, p. 19). Dependability can be achieved through the use of 'overlapping methods' (Lincoln & Guba, 1985). To ensure the trustworthiness of the data in this study, the interview data was transcribed and coded following a transcription and coding protocols to ensure consistency in the transcripts because transcripts are used not only for analysis (Duranti, 2006) but also the researcher's analytic claims (Ashmore & Reed, 2005). Thus, I remained reflective about the reliability and validity of the methods, approaches, and techniques related to the issues being explored as can be seen in table 4.10 below. While table 4.10 discusses the different choices I made in this study to establish the trustworthiness of the findings, the conclusion chapter addresses the study's limitations.

Phases of thematic analysis	Means of establishing trustworthiness
Phase 1: Familiarising yourself with your data	<ul style="list-style-type: none"> ● Engaging with data ● Documenting theoretical and reflective thoughts ● Documenting judgments about potential codes/themes ● Storing raw data in well-organised archives
Phase 2: Generating initial codes	<ul style="list-style-type: none"> ● Using a coding framework ● Keeping a reflexive journal
Phase 3: Searching for themes	<ul style="list-style-type: none"> ● Keeping detailed notes about development and hierarchies of concepts and themes
Phase 4: Reviewing themes	<ul style="list-style-type: none"> ● Returning to raw data through an iterative and reflective process
Phase 5: Defining and naming themes	<ul style="list-style-type: none"> ● Maintaining documentation of theme naming and rephrasing
Phase 6: Producing the report	<ul style="list-style-type: none"> ● Explicitly describing the process of coding and analysis ● Providing thick descriptions of the context ● Reporting on reasons for theoretical, methodological, and analytical choices throughout the entire study

Table 4:8: Establishing trustworthiness during each phase of thematic analysis. (Nowell et al., 2017)

4.9 Ethical Considerations

Prior to the field work, ethical approval (appendix 3) to conduct the study was granted by both Lancaster University and the university in which the participants work. The field work was limited to one university due to accessibility since securing permissions for data collection in other universities was not feasible because of bureaucratic procedures. Additionally, travel to other universities was not foreseeable especially during the early months of the field work, which coincided with the early months of the pandemic and lockdowns. To avoid any possible ethical complications, because of my role in the university as a writing senior instructor, measures were taken to safeguard the participants. First, the participants in this study were selected without having prior work or strong personal connections. Second, measures were also taken to safeguard the participants' anonymity and confidentiality by developing a data management system. After each interview, the audio file was downloaded into a password-protected computer and deleted from the mobile phone, which functioned as a recording device. Then, the audio recordings and transcripts were saved with a unique code to de-identify the participants and their associated information. It was made clear to all participants that neither their names nor the institution they are affiliated with would be included in any dissemination of this study's outputs.

4.10 Context of the Study

This study has been conducted in the Arabian Gulf, in the United Arab Emirates (UAE). The participants in this study work in a private, American-style, liberal art university. The university's regional and global reputation (ranked at 348 in QS World University Rankings and as number one in the UAE) is due to its American accreditation by Middle States HE regulatory body (QS, 2020). Because of its American accreditation, the university requires its staff to have North American educational background (in their graduate training and/or teaching). When it comes to the global academic system, this study employs the World System categorization of the UAE as a semiperiphery (Ruvalcaba, 2020). The UAE has been classified as a semiperipheral country because of its material capabilities. The economy of the UAE is the fourth largest in the Middle East with a GDP of US\$421 billion in 2020 (World Bank, 2019). Higher education in the UAE has historically received federal support especially because the young country, established in 1971, was building its infrastructure with a strong focus on education and nationalizing the workforce. In the past three years, the country embraced a proactive research agenda in its plan of transforming its oil-based economy to knowledge economy. In 2021, the UAE became the fifth country to send a probe to Mars to mark its success in embracing its scientific research agenda (UNESCO, 2021).

4.10.1 The linguistic landscape in the UAE

The study was conducted in the UAE, which is known for its linguistic diversity, which made it an apt location for conducting the comparative study of the ERPP practices of Arabic-speaking EAL academics and NES academics. Although Arabic is the official language of the UAE, English is used in conjunction with Arabic in most businesses

and government departments (Dorsey, 2018; Siemund et al., 2021). However, around 30-50% of the UAE population is comprised of Arabic-speaking citizens and residents (Expatica, 2022; Imminent, 2023) since the UAE attracts many Arabic-speaking immigrants, according to UNESCO (2019) world migration report. Till recent years, expatriate Arab teachers were making up about 87% of teachers in government schools in the UAE (UNESCO, 2019), which led the recent trend of hiring NES teachers in government schools to be received with a great deal of anxiety (Al-Issa & Dahan, 2011; Belhiah & Elhami, 2015). In terms of academic work and research, the UAE attracts many Arabic-speaking researchers and talent as documented in Koblitz's (2016) study of Arab women in the sciences. Women engineers and computer scientists who had come to the UAE and other Gulf states find opportunities that were not available to them in their home countries, in terms of high level of job satisfaction and relatively little discrimination.

4.10.2 The semiperipheral university

In academic writing scholarship, the semiperiphery emerged in response to the old dichotomy between a core/centre (primally Anglophone) known for being endowed with resources and its rigorous research meritocratic culture, and a periphery where researchers do not have access for the most basic equipment or material resources (Bennett, 2014). This study expands Bennett's (2014) definition of the semiperipheral university by adding features that distinguish semiperipheral universities in the UAE, since Bennett's definition was limited to European universities.

This study expands Bennett's (2014) definitions of academic cultures in the semiperiphery in terms of material sources, libraries support, and research ethos. In the site of this study, material sources are modern because of the young age of the country

and university unlike other semiperipheral universities, which lack state of art equipment and they have understocked libraries. Moreover, in the site of this study, the library has a good collection and researchers can order the sources they need. Unlike the weak publish or perish ethos in European semiperipheral universities, publishing in indexed journals is an institutional requirement in the site of study.

4.11 COVID-19 Impact on the Study

The interviews started on January 26, 2020. Sixteen interviews were conducted face-to-face from January 26, 2020, till March 15, 2020. As a result of the outbreak of the COVID-19 pandemic, the participants started teaching and conducting their work online because of the lockdowns imposed because of the pandemic. Thus, the lockdowns delayed some of the interviews, which were originally scheduled for January 2020. Consequently, eight interviews were conducted online between March and September 2020.

4.12 Chapter Four Conclusion

This chapter has outlined the methodological approach undertaken in answering this thesis' research questions. The qualitative data from the semi-structured interviews, analysed following a thematic analysis approach, provided the observations that underpin the central contributions of this thesis. As the findings presented in the following chapter will make clear, the qualitative interview data provided contextualised and detailed answers, which allowed me to develop a rich characterisation of the situated reading and writing practices of EAL and NES scholars in SSH and STEM disciplines and their ERPP experiences.

Chapter 5: Research Findings

“The writing process cannot be inferred from a product any more than a pig can be inferred from a sausage” (Murray, 1982, p.18).

This chapter presents the study’s comparative findings that answer the study’s research questions about the characteristics of the literature search, reading, and LR writing practices for EAL and NES scholars in SSH and STEM disciplines and their ERPP challenges. To answer the study’s research questions, the thematic results of the 22 qualitative interviews are presented under four themes: 1)-LR search protocols; 2)- LR reading practices; 3)- LR writing practices; 4)- ERPP challenges.

5.1 Participants’ Familiarity with the Literature

Before introducing the study’s comparative findings, it is necessary to recognise the participants’ familiarity with the literature in their disciplines since they are experienced academics with active research agendas. Arguably, the participants’ rich and detailed answers about their literature search, reading, and writing practices reflect their research expertise and backgrounds. Unlike most of the research that investigated LR reading and writing, by focusing on the writing of graduate students who are still learning about their research areas, (Kwan, 2006; McAlpine, 2012), this study’s participants are familiar with the literature relevant to their research topics because of their considerable research outputs as can be seen in the following accounts.

The participants' familiarity with the literature (on their research areas) is due to different reasons, which include their extensive reading or research in the past, their training and background, as expressed by this NES participant:

[Before joining the university,] I wasn't familiar with the gulf environment, and I wasn't familiar with the gulf organisms as much then. But now I am more familiar with them, and you know certain fish and corals are like old friends; I already have read about them in the past and know more or less what's going on with them ecologically. (NES, STEM)

Additionally, participants who have published on emergent research topics have developed a strong familiarity with the literature related to these new research areas as explained by this NES participant:

When I first started it in 2015, there was nothing on the area, so once I published the first two papers in the area [cryptocurrency] and they got traction in the news. The papers are highly cited...I know, quite a lot because when you're [the speaker] the first to write about it. (NES, STEM).

The participants' familiarity with the literature can be seen in their detailed and contextualised accounts presented in the following sections.

RQ1: What are some of the situated characteristics for preparing and writing the literature review section in a journal article for EAL and NES scholars in SSH and STEM disciplines?

To answer the first research question, three themes were constructed informed by how literacy is best understood as a set of social practices “inferred from events which are mediated by written texts” (Barton et al., 2000, p. 9). The three themes are: literature search protocol (5.2), literature reading (5.3), and literature review writing (5.4). The comparative thematic findings are presented first by focusing on EAL and NES scholars, followed by a comparison between SSH and STEM disciplines.

5.2 Literature Search Protocol

This study employs the term literature search protocol, which is a term used in library sciences to refer to the literature search process and the search strategies used by researchers to locate and identify relevant literature (Gledhill, 2019). This theme explores how the EAL and NES participants perform their literature search protocols and the information seeking strategies they employ. After that, it compares literature search practices in SSH and STEM disciplines.

5.2.1 Literature review (LR) search protocol for EAL and NES scholars

In this study, the EAL and NES participants showed a clear understanding of the different databases and websites available to perform a literature search. For example, an EAL scholar explained how finding literature is relatively easy by using multiple search engines:

Being a researcher, I know exactly how to search. I know which engine to go to... I have many websites that I can go to, and you know exactly how to do the search, you know what the keywords are, you know how to get the top ones. Scifinder [is] just beautiful because you put two things and [it]tells you. Let's say you're doing the doxorubicin and folic acid, and it tells you all of the papers that have listed both, and the number of papers that listed this one, and this one. (EAL, STEM)

In addition to their familiarity with reliable databases and websites to locate relevant literature, EAL participants demonstrated a good command of the search strategies they need to refine their literature search. One EAL scholar answered a question about the literature research process by detailing their clear command of the search strategies they need to locate relevant literature:

We try to search in different ways, different words different... Even you use different like what do they call it like quotations, signs, plus and negative, brackets, so that to focus it because those are the tricks that we learned. (EAL, STEM)

The EAL participants' experience in performing their search protocols using reliable databases and websites is understandable, considering that all participants are trained

academics with active research agendas. Therefore, they are expected to have a clear understanding of the best practices in performing a literature search, similar to what Hyland (2019) asserted regarding the role of experience in preparing a research project.

Similarly, the NES participants showed a clear understanding of the best ways to perform their search protocols. Many NES participants emphasised the importance of locating reliable literature using different search strategies, even when not using strictly academic sources. In answering a question about the literature search process, an NES scholar asserted the importance of locating reliable sources:

I use World Economic Fund a lot, United Nations for statistics, but be very careful about using websites because it is very cognizant that you've got to prove the credibility of it to yourself. (NES, SSH)

The NES scholars reported similar command, to the EAL participants, regarding the search strategies needed to locate literature, such as the general use of quotation marks around the search terms. Some of the NES participants even reported advanced search strategies such as checking who cited any of the papers in their literature search, in order to locate more relevant literature. An NES scholar, when answering a question, about the strategies used in their literature search, added how they use the cited by feature to locate more literature:

In some cases, I will know that there is a key paper that's really relevant to what I'm talking about. And I will go on Google Scholar and see which papers cite that key paper because those papers are likely to be relevant as well. (NES, STEM)

Notably, there were not any key differences in how the two linguistic groups performed their literature research, and how they developed their search protocols. The EAL and NES participants in this study reported a clear understanding of the literature search conventions in their respective disciplines and a good command of different search strategies to identify relevant literature. It is safe to assume that the participants' command of different literature strategies and conventions in their disciplines is related

to their overall research experiences as scholars with active research agendas and teaching experiences.

5.2.2 LR search protocol in SSH and STEM disciplines

While the EAL and NES participants shared similar literature search protocols for identifying and locating relevant and credible literature, there were differences in how SSH and STEM scholars discussed their literature search protocols. Noticeably, the accounts provided by the SSH participants pointed out how the different terminologies used in different SSH disciplines often prolong their literature search process. For instance, an SSH participant reported the long time necessary for locating relevant literature at the initial stage of the literature search due to the multiple terms used to describe the same phenomenon:

I find that a lot of my literature searching is not reading. It's trying to find the right information because particularly in the social sciences, you have a lot of concepts that I wish I knew what kind of terminology to use. But it's like the same concept is described with three or four different terminologies, some of which you may not know initially going in there. (NES, SSH)

Despite the long time needed for conducting a literature search in SSH disciplines, the time needed to develop or hone the researcher's familiarity with the literature and its disciplinary terminologies is seen as a part of the research process as explained in this account:

For example, I'm looking at the verb "recommend", I couldn't find any study that specifically looked at a verb such as "recommend" or "double transitive verbs". [...] You know that particular aspect, which is okay, and that's what research is all about. (EAL, SSH)

The STEM participants, on the other hand, did not report any problems with terminology in their disciplines. In elaborating on their literature search protocols, the STEM participants explained how their academic training, spanning from their undergraduate years, enables them to navigate their literature search smoothly by employing effective search strategies using relevant keywords. In answering a question about using keywords for locating literature, a STEM scholar explained their familiarity with relevant keywords because of their previous knowledge and training:

I had certain ideas already based on my knowledge and training in the past and experiences, based on those ideas I put in keywords into Google Scholar and came back with papers that were relevant and read those papers. (NES, STEM)

Notably, STEM scholars demonstrated their comfort in using effective keywords in their literature search process, which consequently yields relevant literature. Unlike the SSH participants in the study, who viewed the literature search process as time-consuming, the STEM participants viewed the literature search process as a straightforward process because of their familiarity with the terminologies in their disciplines. One STEM participant referred to the literature search process as using “shopping baskets”, which they use to approach the literature search with a clear understanding of the disciplinary terminologies and concepts. In answering a question on how the participant located the literature used in their recent journal article, the participant elaborated:

The underpinning criteria [is that] we want to know what other people have said, so it was like your shopping baskets for identifying the criteria. (EAL, STEM)

5.2.3 Summary of LR search protocol

The participants shared rich and descriptive accounts regarding their LR search protocols. The EAL and NES scholars reported similar strategies for locating and identifying relevant literature. In terms of disciplinary differences, the SSH scholars

reported experiencing a longer literature search process, whereas the STEM scholars experience a straightforward literature search process, in which they approach the literature search with a clear understanding on the search strategies they are going to employ. The SSH participants in the study reported how their literature search process is often time-consuming because of the different disciplinary terminologies used in SSH disciplines to describe the same phenomenon/concept. On the other hand, the STEM participants reported a straightforward literature search processes because of their familiarity with the disciplinary terminologies.

5.3 Literature Review (LR) Reading

The second theme is about the literature reading experiences. It explores how the participants read the literature as they prepare to write the LR section in a research article. It focuses on how EAL and NES participant approach literature reading and the challenges that hinder their literature reading experiences. The theme also compares the reading strategies, practices, and purposes in SSH and STEM disciplines.

5.3.1 Literature reading for EAL and NES scholars

The EAL and NES participants' accounts recognised the importance of the researchers' critical reading and engagement with the literature as an essential requirement to writing an effective LR section in a research article. For example, an EAL scholar elaborated on their reading approaches when they read to prepare an LR section in a journal article.

*I think the most important decision is that when you do a literature review:
Do a comprehensive literature review. You cannot afford to miss, and not cite
an important resource. (EAL, STEM)*

Answering a question about the qualities of a good LR section in an RA, an NES scholar defined what they consider as an effective LR based on the writers’:

ability to capture a representative range of ideas and publications that relate to the empirical work that they're presenting. (NES, SSH)

The EAL and NES participants in the study identified that the biggest challenge they face in their literature reading is the lack of time. In answering a question about finding the time to read, An EAL participant explained how they read over the weekend:

You know I come on Saturday here [to their office] every week at eight to four simply to finish my research. (EAL, SSH)

Similarly, an NES participant explained how their reading is hindered by time:

I don't have enough time. I've got three kids who are very young. I mean, let's be practical... I cannot read when I get home that much. My time is only from eight in the morning till around five. (NES, STEM)

While recognizing the importance of including a representative literature review (LR) in their research articles (RA), the EAL and NES participants identified the lack of time as a challenge in developing an effective LR section in their RAs.

5.3.2 LR reading strategies in SSH and STEM disciplines

Although EAL and NES scholars identified the lack of time as the major challenge in their reading processes, it seems that there are more critical differences in the reading strategies employed by SSH and STEM scholars. In discussing their reading strategies, the SSH participants shared detailed descriptions of their close reading strategies such as annotating and summarising the literature. One SSH participant explained how they employ summarizing strategies while reading:

I make like a folder in my computer with all the literature that I want to read for this paper right, so it's all like PDF files usually or books some library ebooks. And then I start reading each one. I summarise as I'm reading so there is the file there. (EAL, SSH)

In addition to summarising the reviewed literature by writing, some SSH participants explained how they employ other close reading strategies such as visual designs in their literature reading practices, which also aim to summarise the reviewed literature:

I like reading but then typically what I will do: I will summarise an article in terms of what it's telling us and what it isn't telling us visually. (NES, SSH)

In discussing their close reading strategies, the SSH participants emphasised how they read the literature in full, which is generally time-consuming. One SSH participant highlighted the long time needed for reading the literature, and how others scan the abstracts instead of reading the full text:

My colleague who I was writing with yonks ago said "Oh, goodness, you don't just read the abstracts, do you?" And it was only then, that I realised that a lot of people were just reading the abstracts, and I thought "oh crumbs". No wonder it takes me so long to write anything because I actually, you know like reading. (NES, SSH)

On the other hand, some STEM participants reported that they scan and skim the literature often, without fully reading the research article. Skimming is done at a speed three to four times faster than normal reading (Liao, 2011) whereas scanning is the process of quickly searching for particular piece or pieces of information in a text (Mikulecky & Jeffries, 2007).

The STEM participants identified that they read/scan and/or skim the abstract, introduction, results, and references sections when they review the literature. Similar to this answer to a question about the sections to read in a research article:

You don't only read the abstract or the introduction or the results. No. You have to look at the references that were used. (EAL, STEM)

The STEM participants employ scanning as their key reading strategy. Answering a question about the reading strategies, they employed when they prepared for their latest research article, a STEM participant expressed how they just scan to identify key information in a research article, by stating that they have not read a full research article in a long time:

I'm reading every day to a certain extent, but a lot of times when I'm reading papers, I'm not reading them, I'm just scanning them, and you know extracting the key information. It's not often that I would just sit down and read a journal paper from start to finish. I can't remember the last time I did that. (NES, STEM)

However, it seems that STEM scholars read research articles in full when they determine that the paper requires more in-depth reading as explained by this participant who answered a question about their reading strategies:

I look at the titles and the abstracts in some cases to see if it's relevant to see if it will give me information that's useful for including in my paper. And then if it looks promising based on the title or abstract, I'll click on it read through

the abstract, read through the introduction and discussions and sometimes read most of the paper itself depending on you know how in-depth I want to go. (NES, STEM).

5.3.3 LR reading practices and purposes in SSH and STEM disciplines

In addition to their different reading strategies, the SSH and STEM scholars reported distinct reading practices and purposes when reading the literature. On one hand, SSH scholars' literature reading practices are iterative as they keep on checking the literature during the research process since they view literature reading as a problem-solving opportunity. An SSH participant emphasised the recurrent process of consulting the literature throughout the research process by noting the discursive nature of LR reading in SSH disciplines:

Okay now I gotta come back to the literature." Yeah, so I guess it's less of a review than just a fairly regular process of searching and problem solving using the literature to do that. (NES, SSH)

More specifically, in SSH disciplines, the literature review is an iterative process of seeking answers to the research questions and identifying potential solutions, as explained in this answer to a question that asked a participant to reflect on their literature reading practices when they prepared their latest research article:

So sometimes you don't want to synthesize and summarize what people had done you want to articulate your own idea, either as a solution, an alternative solution, or a completely new suggestion. [...] Did anyone write on a topic, where they adopted a similar strategy and so on so forth. So, some other times then you say okay let me go back to the literature review and add this source. (EAL, SSH)

Notably, the SSH participants in this study provided dynamic accounts on their literature reading practices, in which they emphasised the thesis-driven nature of their discursive literature reading practices. SSH participants elaborated on how they repeatedly consult the literature as they seek further support for their arguments. An SSH participant details how they carry on reading to further support their thesis:

I will have to do some readings now to try to substantiate that thesis to make sure that there's support because the thesis at that point is a claim here. (EAL, SSH)

STEM scholars, on the other hand, reported a less discursive literature reading process, yet they also view literature reading as a problem-solving opportunity, especially at the beginning of their research projects. STEM scholars consult the literature to see if their research questions and issues have been discussed earlier in the literature. At the beginning of the research process, STEM scholars check the literature to explore how their research topics were addressed, similar to this account:

And then you search in the literature. If the answer is there in the literature, then this cancels the question. Now you could you actually modify the question based on the information that you have (EAL, STEM).

Additionally, STEM scholars use the literature to gauge the merit of the current research in their disciplines and evaluate their research questions. A STEM scholar explains how they tell students in their lab, after receiving funding for their research project, to check if someone has answered their research questions before:

I will say to them [students in the lab] please go into PubMed [and] see what has already been done. Has anything been done now? Is something similar being done in another disease, or for cancer, for example? (NES, STEM)

Unlike their SSH peers whose literature reading is thesis-driven, the STEM scholars read the literature to evaluate their research questions at beginning of their research projects.

However, a very crucial aspect in the literature reading for STEM scholars is in how they consult the literature to back up scientific facts once they start writing. STEM scholars consult the literature to support scientific facts and/or statements because including statements without support is “bad science” as articulated by a STEM participant:

When I'm writing science in general , and when most scientists are writing, they make a lot of statements... they state facts so to speak or hypotheses. It's bad science writing to just write a fact, without something supporting it. So you pick the best one or usually two sources to support that statement. (NES, STEM)

Although the SSH and STEM scholars employ different reading strategies and practices, they share similar purposes for their literature reading. In this study, both the SSH and STEM participants expressed how their purposes for literature reading is to highlight the research gap/dissonance/problem in their research topics. Most of the participants shared remarkable accounts on their literature reading when they started addressing how their literature reading allowed them to locate or identify a research gap. For example, an SSH participant, who provided digital images of their visual mind maps, shared an interactive account about the joy of identifying gaps:

So, I build up a series of visual mental maps from different articles, and that's the way I can have clarity on where the gaps are and how, what I'm proposing or what the team is proposing can advance that body of knowledge. (NES, SSH)

A STEM participant outlined their reading process, and how it aims to highlight the gap while showing examples from the introduction section in their recent journal article, which was brought as a hard copy to the interview, by sharing an enthusiastic recollection of their reading practices to identify the gap:

So that's the introduction. Are we missing the one gap? Yes, we're. This is it. So excited. But now you're gonna get more. I know that I'm going to cite Geronimo. Talking about going back to 1991 or whatever, there is such a guy. Now I'm building on previous work. (NES, STEM)

5.3.4 Summary of LR reading strategies, practices, and purposes

The participants in this study provided detailed accounts about their LR reading, strategies, practices, and purposes. The EAL and NES participants identified the lack of time as the biggest challenge they face in their literature reading processes, where they expressed how they often need more time to read. However, there were some differences in the reading strategies employed by the SSH and STEM participants and their reading practices. On the one hand, the SSH participants employ close reading strategies, and they engage in discursive literature reading processes. On the other hand, STEM participants skim and scan the literature more, and they consult the literature to evaluate their research questions at the start of their research process or to support their scientific facts. However, the SSH and STEM participants expressed how they view literature reading as an opportunity for problem solving, and they emphasised how identifying a research gap is a welcomed outcome of literature reading.

5.4 Literature Review (LR) Writing

This theme is focused on literature review writing. It focuses on the writing techniques employed by the EAL and NES scholars when preparing the literature review section in a research article (RA). It compares the writing practices and the role of the audience in literature review writing in SSH and STEM disciplines.

5.4.1 LR Writing for EAL and NES scholars

In discussing the qualities of an effective LR, including relevant literature that strengthens the research was identified as a strong element for effective literature review writing by the EAL and NES participants.

An EAL participant answered a question about the most important literature inclusion criterion:

Well it's about relevance, again. You know like okay, how relevant is it[literature]? How much would this piece of research contribute to advancing my research? (EAL, SSH)

Additionally, including up-to-date, relevant literature was discussed as a key requirement for effective literature review writing. One NES participant answered a question about what sources to include when starting the literature review writing:

I choose sources that are most relevant to what I am trying to say and if possible, I try to use more recent sources rather than older sources. (NES, STEM)

Despite their similar views on what constitutes an effective LR section in an RA, the EAL and NES participants shared different strategies for writing the LR section. In answering a question about their strategies for writing the literature review, an NES scholar discussed using annotated bibliographies as a strategy to develop the synthesized literature:

What do I do? I think it's more synthesis. Because I, you know, summarise and end up like with an annotated bibliography. (NES, SSH)

Another NES participant indicated how they synthesize the literature using visual mind maps:

I do the mind map after reading where you either you might read an article again and you may decide, yeah that's a possibility, or a new article comes out but completely refute something, so you then have to update it. (NES, SSH)

Remarkably, the EAL participants asserted the importance of synthesizing the literature and outlined their detailed reasons for why they synthesise more when writing the LR section in an RA more than their NES peers. Arguably, the EAL participants' stance on synthesis and its importance in LR writing could be related to how literature review sections in Arabic are often written using more summarising techniques and fewer synthesising techniques.

For example, one EAL participant elaborated on this issue:

Synthesizing means that you are not just reporting things as they occur, but you have your own input into the process here.

In explaining the reason for preferring synthesis more in relation to Arabic. The participant continued:

Like in Arabic it's itemized, you'll have a list of works that are totally disconnected from like say a literature review, okay the following works were published on this topic. One, two, three, four so you have some- I don't like that. (EAL, SSH)

Similar aversion to itemizing or listing literature, which is common in LR writing in Arabic, was expressed by an EAL scholar when answering a question about how they respond to their graduate students' literature review writing:

It has to be critical. And that's the point that many students miss. They are just listing. This person did blah blah blah, and then this other person did blah blah blah. (EAL, SSH)

This understanding of the role of synthesis in writing an effective literature review is not only recognized by the EAL participants in SSH disciplines, but also by other EAL participants in STEM, similar to this EAL participant who was answering a question about his LR writing practices:

So, what I do is more synthesis. What I do is I read. I mean I've been reading all of those papers, and I know I have an idea. (EAL, STEM,)

Additionally, the EAL participants expressed how they feel frustrated when they do not succeed in synthesising the literature in a timely manner. One EAL participant shared these feelings when answering a question about their recent journal article, and they mentioned the days they experienced writer's block because they could not work on synthesizing the readings:

I realized when I summarized the studies (when I planned for the introduction) so that the ideas are still there, but I didn't synthesize. So, I put the skeleton, and nothing was really on me. That's why it's very frustrating. (EAL, SSH)

Although the participants' accounts indicated how many of them are familiar with LR writing conventions, some of the less experienced participants expressed their challenges in meeting the demanding nature of academic writing. Unsurprisingly, these challenges were voiced by both EAL and NES participants, who are also early-career researchers. An EAL participant explains the demanding nature of academic writing:

It's just a painful process of structuring the writing; that's really difficult because I have all the data. It's just how do I make it into something that can be easily understood (and the value of it) to the reader. (EAL, SSH)

Another NES participant shares an account regarding their writing insecurities, capturing some of Bourdieu et al.'s (1994) and Hyland's (2016) remarks on how academic writing is no one's native language:

I have great ideas. I know it in both science and in this area. And I am good at the starting, and I'm good at the middle step. But when it comes to writing it up. There's this psychological block that every time I look at it, I start to doubt myself and you know that insecurity of putting it out there. And so, I have a really hard time with the writing. (NES, STEM)

In summary, although the EAL and NES scholars reported a similar understanding of LR writing conventions, the EAL scholars emphasised the importance of synthesizing the literature more than their NES peers. Additionally, early-career EAL and NES researchers shared their frustration with the overall demanding nature of academic writing.

5.4.2 LR writing practices in SSH and STEM disciplines

Expectably, the different reading strategies and practices in SSH and STEM disciplines impact LR writing. In this study, the SSH participants reported more complex writing practices than their STEM peers. A notable difference in the writing practices of SSH and STEM participants is in how the SSH participants draft the LR sections using the notes they developed from reading the literature unlike their STEM peers who read the literature and write the LR section simultaneously.

In answering a question about drafting the LR section, an SSH participant indicated how their extensive reading notes on the literature serve their literature review writing because they can establish the connections within their different sources:

I've got this list of literature. So I will read an article, print them out, highlight, highlight, highlight, type up notes for every single one. Then start writing and then start reading more highlight, type it in and start to weave it through. And then gradually, the article comes about, because I'm slopping things in "Oh that's interesting. Oh, that fits, as I'm doing the literature review. And then of course I have to do is slice, slice, slice. Because for something like—I don't know 8000-word article, I've got something like 20,000 blooming words. But that's just a personal way of working and then I have to cut it all back. (NES, SSH).

Yet, some SSH participants attributed the short time they require to draft the LR section to their extensive notes on the literature, similar to this account:

The writing doesn't take long, the first draft is very quick. because I had a lot of notes. So, I sort of took my notes and put them together. I don't know if I'm throwing just numbers, but, I wouldn't say it took more than two weeks. (EAL, SSH)

Unlike their SSH peers who write the LR section using their reading notes, the STEM participants reported that they read and write the LR section at the same time, using concise writing strategies such as writing with bullet points:

Yeah, so how I do it[writing] is after each paper. I don't write out four bullet points. For the literature, I write one bullet point, and then I save the reference there, and I keep going. So, at the end, I write it all in latex, I don't use words, I write latex. And then at the end is like 20 bullet points with all the different literature. And then I put it all together, so I don't write it neat straightaway. And then I combine it [references] all together. (NES, STEM)

Other STEM scholars elaborated on how they read and write at the same time because they paraphrase the literature as they read. A STEM participant explains:

When I read, when I write a paper, a proposal or something, I start from the beginning. So, as I'm reading, if I like the information, if the information is relevant, then what I do is, on the side or even on the computer, is that I start to write this information in my own words directly. And then I put the in-text reference [to indicate] that this is belonging to this article. If there is another article within this article, I go and get the other article, I continue reading, then I rewrite it—rephrase it in my own words, and put the other reference, and then I keep adding to this. (EAL, STEM)

5.4.3 Audience awareness in LR writing in SSH and STEM disciplines

Despite the different writing practices in their disciplines, both the SSH and STEM scholars emphasized the importance of audience awareness in LR writing. The SSH participants in this study explained how they think about the audience constantly, and they shared how they are always considering the audience's needs in their drafting and writing practices. An SSH participant expressed how they think of the audience's needs as they read the literature:

[when I] started reading the literature, I realized the need. Most of the literature on that subject is concentrated in, or come from a thesis... I'm pretty sure you know that you need to target one of these journals that either is already interested in something like this. So, this is where the audience comes in. (EAL, SSH)

The STEM participants, in this study, were also clear of how audience awareness allows their research to be more impactful, as explained by this participant:

With that experience and maturity, if you want, you start to realize that you must connect with the international [audience] because for you, for your work to be recognized by a larger population. And the more the interest is going to be in this larger population, the more again you're going to have impact in that centred community. (EAL, STEM)

A STEM participant, expressed a similar approach on how audience awareness is necessary for achieving impact:

I think, still, if it's if you're targeting a scientific community or an engineering community, they expect that you have laid the foundation in terms of the literature review. But I think it's probably more important for an international audience because just simply more people are accessing your papers. (NES, STEM)

Thus, it seems that audience awareness is a critical concept in LR writing in SSH and STEM disciplines.

5.4.4 Summary of LR writing

Although there were no major differences in how the EAL and NES participants approach LR writing, the Arabic-speaking EAL participants emphasised the importance of synthesising the literature more than their NES peers. However, the SSH and STEM scholars seem to have different literature review (LR) writing practices. The SSH

participants highlighted how they draft the LR sections in an RA using their literature reading notes. Conversely, the STEM participants seem to review the literature and write the literature review section in their RAs at the same time. Yet, both the SSH and STEM participants emphasized the role of the audience in LR writing.

RQ2: What are some of the ERPP challenges faced by EAL and NES scholars who publish outside the Anglophone sphere in SSH and STEM disciplines?

5.5 ERPP Challenges

The study's fourth theme (ERPP challenges) was developed using the data from the qualitative interviews, which asked questions about the participants' reading and writing practices and their publishing experiences. This theme focuses on the challenges of researching and writing about local issues for the international audience in SSH and STEM disciplines.

5.5.1 Writing about local issues in SSH disciplines

The SSH participants, in this study, emphasised the importance of writing about their local issues by drawing on the successful experiences of other EAL scholars who publish internationally. An EAL participant explains how her publishing is motivated by a sense of duty to bring regional (Arabic) research to the global research arena.

It's a part of our duty because we want to highlight Arabic studies in the international stage. Reading Spanish authors, for example, they don't just publish in Spanish journals; they publish everywhere. (EAL, SSH)

However, SSH scholars face material challenges like accessing Arabic-language resources and using local literature in their writing.

5.5.2 Limited access to Arabic-written resources

The Arabic-speaking EAL participants in this study remarked how there is limited access to Arabic resources. This limited access to Arabic-language resources often restrict the participants to reading and using English-language resources. In addition to the limited access to Arabic-language resources, several participants noted that accessing the abundantly available English-language literature is easy, especially when translated from Arabic or other languages. For example, an EAL participant explains the easy access to literature written in English:

I find that access to information in the English language is clearly, just so much, so much. A lot of the stuff I was researching was either written a century ago, in Arabic or French, and then translated to English. (EAL, SSH)

5.5.3 Using local literature in SSH disciplines

Although English-language literature is widely available for the NES and EAL scholars, some of the participants expressed how they face challenges when using local literature, whether written in English or other languages. Other studies reported similar challenges when off-network scholars employ local literature, and how they deal with the gatekeepers, who are often unfamiliar with the local literature or references (Canagarajah, 2002; Kubota, 2020). In this study, the NES participants expressed their frustration in defending their choices to include local literature to write about their local (Arab) issues. An NES participant shared how dealing with reviewers' comments can be exhausting when they lack knowledge about the region. They explain the added labour in writing about local issues:

Because the data were so nice there, and I thought that could almost speak for itself... then I got reviews where it were completely off base, like I couldn't even use them to improve the paper because they were so irrelevant. But what it made exceptionally clear was, they didn't understand the context. So what was valuable is okay I need a much more elaboration on the context. (NES, SSH)

Similarly, an NES participant explained how they had to link their local literature to the UK and US audiences in order to get their work published:

Because it's sort of like, excuse me, you [gatekeepers] send all this stuff over here from Europe and the West and expect us here to take it on board as the right thing to do. But then we said oh, what's going on over here? I'm trying to get the reciprocation and of course they don't say we are right, and this is the right way but it says like, unless you can show some link with how it links with us in America or Britain again. (NES, SSH)

Interestingly, the EAL participants, in this study, did not express any frustration with the need to contextualize their work when they use local sources. Their perceived lack of frustration is, perhaps because the EAL participants grew more accustomed to defending their local literature choices as early as their graduate writing years, and/or that they learned how to contextualise their writing.

Additionally, locating sources that express non-mainstream views and groups has been identified as a challenge for EAL and NES scholars in SSH disciplines. An NES participant elaborates on their frustrating experience writing about Arabs after working in the Arab World, for more than a decade:

What's annoying, is that my own discipline ...we've got this expression: "Oh, we need to have other cultures represented". We're gonna let you be here after we make it extremely hard for you to break your way in and convince us your work is valuable and then we're going to ignore it. Otherwise, there is very little research in the entire field of psychology that is conducted with Arabs, and that doesn't mean you don't know from having lived here for 11 years; taught the relevant classes; had the discussions; have stuff that's written up. (NES, SSH)

Despite these challenges, SSH scholars reported their success in writing about the region. An NES participant explains how writing about the Arab and Muslim world has made their work attractive:

Yeah, that's part of what made my publications sometimes attractive, is the fact that Arabs and Muslims are underrepresented in the human science literature compared to their- population in the world. (NES, SSH)

5.5.4 Writing about local issues in STEM disciplines

The STEM scholars, in this study, reported different experiences in writing about local issues than their NES peers. The STEM scholars recognised the importance of writing about local issues as in the observation made by an NES participant:

If you don't start in your local context, it's not going to become a global context. (NES, STEM)

However, STEM scholars demonstrated a better command of strategies to draw more interest in their local topics. For example, an NES participant answered in detail a question about how to grow the audience's interest in reading about a local phenomenon:

If you say, "this happens in [the UAE], and here's why it's a more universally applicable, ecological phenomenon or at least regional" and then more people would be publishing and more people would be interested in citing it with more universal applicability. (NES, STEM.)

Additionally, STEM scholars draw global interest to their topics by collaborating with other international researchers who work on the same phenomenon. An EAL participant explains this strategy:

If I'm working on the project for example wildlife broadly localized to the UAE, one of the problems I have is it has a huge interest, but you got somebody who ask, but for the UK, it doesn't mean anything, right? Yeah. So now what to do? I started to drag people from the UK, right to be working on this project. Just to start to bring in this start.

Later on, the participant added how they will define that problem in the introduction of a research article about the localized wildlife:

Totally, I don't say we've got as a problem in UAE I'm gonna say like midway is going to be the potential problem in the UK or in Europe, especially with the growth in the number of retailers [who sell this wildlife]. (EAL, STEM)

5.5.5 Summary of ERPP challenges

Remarkably, the SSH participants in this study reported different ERPP challenges than their STEM peers when writing about local issues. The SSH participants shared specific experiences in which they have limited access to Arabic resources, and how they receive specific demands from the gatekeepers about the necessity of providing more context for their local topics. The STEM participants, on the other hand, seemed to employ more strategies when writing about their local issues. These different ERPP experiences, seem to be related to the different disciplinary conventions in SSH and STEM disciplines. More importantly, these differences are not actively discussed in ERPP scholarship, as will be demonstrated in the following discussion chapter.

5.6 Chapter Five Conclusion

This chapter presented the study's multimethod, comparative findings (summarised in table 5.7 below). The interviews qualitative findings seem to suggest that there are more critical disparities in research writing and publishing, beyond the limitations of the linguistic variable. More specifically, the study's comparative answers to its first research question seem to suggest that EAL and NES scholars approach preparing the literature review section in a journal article similarly across the disciplines; however, there are more critical differences in how SSH and STEM scholars approach preparing the literature review section in a research article. These disciplinary differences could suggest how the varying ways in which SSH and STEM scholars negotiate literature reading and writing are indicative of more pressing disparities in research writing and publishing besides the linguistic factor. In its investigation of the different ERPP challenges facing scholars based outside the Anglophone world, the study identified crucial challenges facing EAL and NES scholars in writing about local issues, but these challenges are experienced in a lesser manner in STEM disciplines.

The findings are discussed in the following chapter, employing the study's theoretical framework. The discussion draws on the social and situated nature of academic writing to present the study's contribution about the necessity of understanding how disciplinary conventions impact research writing and publishing when discussing disparities in the global knowledge production scene.

Summary of the Findings

RQ 1: What are the some of the situated characteristics of reading and writing the literature review section in a journal article for EAL and NES scholars in SSH and STEM disciplines?

	Linguistic Groups		Disciplinary Groups	
	Arabic-speaking EAL	NES	SSH	STEM
Theme 1: Literature search process	LR search is expected to done using scholarly databases and advanced search strategies	Similar LR search approach	The search process is time consuming	The search process is straightforward
Theme 2: Literature reading practices	The lack of time was identified as main challenges in LR reading	Similar challenge	The reading practices are discursive, and they employ annotating and summarizing as reading strategies	The reading practices are more structured, and they employ skimming and scanning as reading strategies
			Literature reading is viewed as a problem-solving process	Similar view
Theme3: Literature writing practices	The inclusion of relevant literature is a key feature in effective LR writing Synthesizing literature is a key feature in effective LR writing	Similar literature inclusion criteria	Participants start writing after they finished reading using their notes	Participants write as they read
		Less emphasis on synthesis		

RQ2: What are the ERPP challenges faced by EAL and NES scholars?

	Linguistic Groups		Disciplinary Groups	
	Arabic-speaking EAL	NES	SSH	STEM
Theme 4: Writing about local issues	Meeting the gatekeeping demands about the region is challenging	More vocal about the frustration in meeting the gatekeepers' demand	There report challenges in making the local global	They employ more strategies to make the local global

Table 5.1: Summary of the Findings

Chapter 6: Discussion

“Publishing in professional journals requires the author to display disciplinarity and yet to say something novel” (Sullivan, 1996, p.221).

This chapter presents the study’s analysis of its comparative qualitative findings, and it situates the analysis and discussion in multiple points of consensus and disagreement with prior work to further situate the study’s contributions. First, this chapter aligns the study's design and findings with the viewpoint that investigating disciplinary writing practices can offer valuable insights about how situated writing practices impact academic discourses (RQ1). Second, this chapter argues that the strong and weak grammars impact literature search, reading, and writing in the different knowledge structures across the disciplines. (RQ1). Third, it discusses the textual and social aspects of LR writing. Finally, this chapter argues how access to the global discourse community is mediated by factors beyond the linguistic variable, affecting scholars' ERPP practices outside the Anglophone sphere (RQ 2).

6.1 Overview: “It Is Not What They Write; It Is How They Write and Read”

As demonstrated in the preceding chapters, this study’s comparative design aimed to investigate how disciplinary writing conventions impact research writing and publishing, and it aimed to understand the complexity of the ERPP experiences of scholars outside the Anglophone world. Hyland (2004) astutely remarked how understanding disciplinary writing offers rich accounts of how academics negotiate the socially constitutive disciplinary demands in their disciplines because text embodies the social negotiation of disciplinary inquiry, revealing how knowledge is constructed, negotiated, and made persuasive.

Informed by that position, this study investigated how scholars in SSH and STEM disciplines prepare to read and write the LR section in an RA. The study’s focus on the LR section was motivated by the belief that investigating the situated characteristics of

preparing and writing the literature review section in an RA can provide rich insights into the disciplinary writing conventions. The study's objective of focusing on the situated aspects of reading and writing LR section is grounded in the study's position on the social and situated nature of academic discourse. Indeed, the study has generated rich and contextualised about its participants' ERPP practices because of its focus on LR reading and writing, drawn from the participants' considerable research experience. The study's findings suggested that EAL and NES academics approach LR reading and writing differently because of the different grammars in the knowledge structures across SSH and STEM disciplines. In addition to negotiating these disciplinary demands, EAL and NES scholars face the social challenges of addressing the demands of the global discourse communities. The sections below discuss the study's findings guided by the study's theoretical framework and its position on how the interactions between discourse and discipline impact research writing.

6.2 LR Search and the Disciplines' Grammars

The study's findings suggested nuanced differences in how SSH and STEM scholars perform and conduct their literature search, which impacts the duration and flow of the literature search process. Challenges with identifying the appropriate terms or keywords for conducting effective literature research are not uncommon. For example, several novice researchers reported their struggles in locating relevant literature because they were not familiar with the key literature in their disciplines (Chen et al., 2016; Warburton & Macauley, 2014). Arguably, the varying disciplinary terminologies or grammars as Bernstein (1999) referred to them, in SSH and STEM disciplines impact the literature search process.

The time-consuming nature of literature searches in SSH disciplines can be related to their weak grammar, or how there are different terminologies or conceptual syntax used

to describe similar concepts/phenomena as Bernstein (1999) pointed out. These different terminologies can cause anxiety, especially when the researcher spends a long time locating relevant sources to their inquiry areas. The study's findings suggested how many SSH participants spend considerable time trying to locate literature using the *correct* terminology. As Bernstein (1990) remarks "The acquirer may well be anxious whether he/she is really speaking or writing sociology" (p. 164). It is possible to argue that in disciplines with weak grammars, the acquirers do not even know if they are searching for sociology or not.

On the other hand, the strong grammars in the STEM disciplines facilitate the literature search process and lead to a more straightforward search process. Many STEM participants in the study provided detailed accounts of the strong grammar in their disciplines when they answered questions about how they prepared for the LR section. In the Bernsteinian view, the strong grammars in vertical discourses with hierarchical knowledge structures allow easier transmission, acquisition, and even identification, as suggested by participants' accounts. The familiarity expressed by the STEM participants and the remarkable ease, with which they recalled some of the keywords they used to locate the relevant literature to their research topics could be explained in light of the strong grammar in the hierarchical knowledge structures that integrate knowledge at a greater level. In fact, the study's findings about how STEM scholars have systematic literature search protocols is consistent with the work of Tenopir et al. (2009). For example, they found that medical researchers spend the most time reading journal articles, followed by engineering researchers who locate sources using specific search features instead of browsing, unlike SSH scholars who browse for literature.

6.3 LR reading and the Gaze

The different grammars in vertical and horizontal knowledge structures do not only affect the literature search process, but also they affect the reading practices in SSH and STEM disciplines. Although the SSH and STEM participants in this study viewed literature reading as a problem-solving process, they expressed how they employ different reading strategies. The employment of close reading strategies in SSH disciplines can be understood when considering the knowledge structures in horizontal discourses and their segmental organisation. It seems that when SSH scholars approach writing an RA, they use the literature reading process as an opportunity to evaluate their research competency. In other words, the segmental organisation in SSH disciplines means that most scholars have context-dependent competencies, and they use literature reading to evaluate their capacity or competency to explore a research topic.

The view of literature reading as an opportunity for problem-solving resonates with the Bernsteinian definition of the gaze. The gaze is better found and understood in disciplines with strong grammar where the reader knows where to look. Disciplines with weak grammar often lead to anxiety, which pushes the reader/acquirer to question the choices made and seek more support for their choices. Since readers in disciplines with weak grammars in horizontal discourses do not gaze, they seek support for the thesis within the existing reservoir, such as seeking the names of canonical names.

The SSH participants in this study reported a discursive, thesis-driven, reading process, which suggests how the lacking gaze and the anxiety it causes leads SSH scholars to explore the community's reservoir seeking support for their arguments. As Bernstein (1990) indicated, searching for canonical names that hold certain social powers in the community occurs when the discipline has weak grammar. This view has been supported by McAlpine (2012), who noted how in the social sciences, individuals

appeared to be reading to find epistemological links, both historical and contemporary, that might underpin their work.

The familiarity with the canonical names can explain why the SSH participants reported reading the familiar literature closely. Their close reading could be due to their knowledge of the horizontal discourse, and how its segmental organisation allows them to identify where to read. Arguably, the number of specialised languages in horizontal discourses drives SSH scholars to read the literature in full. Reading the literature in full while notetaking is probably related to how the knowledge found in a specialised language is not always transferable to other languages; thus, it requires more reading time and strategies. This has been further supported by Shanahan et al. (2011), who noted how when historians read, they engage in sourcing, contextualisation, and corroboration similar to Tenopir et al., (2009) who noted the longer time spent by SSH scholars on reading.

On the other hand, the STEM participants reported how they read the literature more systematically with an interest in checking their methods and hypothesis. Similar to their SSH peers whose reading is guided by their thesis, STEM scholars' reading is guided by their research questions, and they generally scan the literature because they are familiar with the literature, but they do not always read the literature in full. Unlike their SSH peers, STEM scholars reported different reading practices and approaches. Many of them reported that they read to check their methods and hypothesis. Unlike their SSH peers who read to explore the epistemological underpinnings of their research topics, the STEM scholars locate the knowledge easily in the vertical STEM disciplines with hierarchical knowledge structures with strong grammar.

It can be argued that the STEM scholars reading to evaluate their research questions and support the scientific facts reflects the hierarchical knowledge structure in the

Bernsteinian (1990) view. In that view, the integration of knowledge at the level of meaning and the procedures of vertical discourses are linked to other procedures hierarchically. Because the acquirers in vertical discourses with strong grammar are comfortable with the syntax or grammar, they are reading with a strong gaze directed at reading about their research questions or topics. Thus, it is possible to argue that the strong grammar in vertical discourses allow STEM scholars to read the literature at the beginning of the research process to evaluate their research questions, and later on they consult the literature to support the scientific facts in their writing because they are already familiar with the knowledge in their disciplines.

The different knowledge structures in horizontal and vertical discourses also impact when researchers feel ready to start writing the literature review section in a research article. In this study, the SSH scholars expressed how they are ready to write the literature review section once they can understand the reviewed literature using their extensive reading notes, whereas the STEM scholars reported reading the literature and writing about it simultaneously. It is possible to suggest that SSH scholars spend more time locating and reading the relevant literature because of the different specialised languages in horizontal discourses and their weak grammar. These specialised languages impact knowledge circulation in horizontal discourses, which have tacit recontextualising due to having few systemic organizing principles.

6.4 LR Reading and Writing across the Knowledge Structures

Additionally, it is possible that the specialised languages in horizontal discourses, claimed to cause anxiety, make the researchers spend more time reading before becoming ready to write about them. The long reading time, in SSH disciplines, can be attributed to the needed time to recontextualise the reviewed literature. It is also possible that the weaker grammars of some of the languages in horizontal discourses

further complicate the reading process. These findings about the longer time needed for reading the literature to write the literature review section were found in other studies that noted the longer time needed for reading the literature. For instance, Kwan's study (2009) about LR reading and writing practices in graduate students' dissertations in linguistics found how LR reading and writing become "heuristic forms" to learn about the research gap, methodology, and theories, and it goes dissolved at the background of the thesis writing.

The strong grammars of hierarchical knowledge structures, which seemed to ease the reading process for many STEM scholars, also seems to affect their writing process. Because of the stronger integration properties in hierarchical knowledge structures, it seems that reading and writing can happen at the same time because many STEM scholars are already familiar with the procedures and their integration codes in their STEM fields. The term procedure here is used in the same way Bernstein (1990) uses it to describe the integrating nature of procedures in vertical discourses. Arguably, the integration in hierarchical knowledge structures in vertical discourse, similar to STEM disciplines, makes the writing process easier for STEM scholars because the vertical discourses seek to be more integrated and general.

6.5 The Social Dimensions of LR Writing

6.5.1 Identifying the research gap as a social and textual convention

Although the study's findings suggested that disciplinary variances and grammars in hierarchical and horizontal knowledge structures seem to impact research writing, the SSH and STEM scholars expressed a similar understanding of the social dimension of knowledge construction in the academic discourse community. For example, the SSH and STEM participants in the study expressed that identifying a gap is a necessary

outcome of LR reading. Interestingly, the identification of a gap has been earlier critiqued, because of its American marketing undertone, and move two (establishing a niche) in the CaRS model has been found unnecessary in works published in less competitive research communities (Kwan, 2006). Expectedly, the reproduction of the RA, in which move two appears especially in RAs written in the Anglophone world, could have influenced how the participants came to realize the identification of the gap as a significant step in LR writing. Additionally, the participants' training in the Anglophone sphere, and their use of different textbooks in their respective courses that advocate identifying a gap as a key move in LR writing could have impacted their perceptions of the gap.

However, identifying a gap could be seen as more of a social convention in light of Bernstein's (1990) view. In Bernstein's view, the development in hierarchical knowledge structures is seen as the development of theory, whereas introducing the new language is considered a development in horizontal structures. By carefully considering the social nature of writing, and how Bernstein (1990) proposed development in hierarchical and horizontal structures, it is possible to view the identification of the gap as a way to participate in knowledge construction by being part of the academic discourse community. Identifying the gap as a social practice or a way to enter the academic discourse community is related to how a discourse is a social space, as articulated by Bernstein (1990) and Swales (1990), who asserted that knowledge and writing depend on the actions of the members of a local community. Additionally, writing as a social activity entails writers spending time in careful negotiations with their colleagues, aiming to persuade them of their work (Hyland, 2004).

6.6 ERPP Challenges

This study reported two key ERPP challenges. The first one relates to the limited local/Arabic resources, and the second one relates to writing about local issues by EAL and NES scholars who publish their research outside the Anglophone world. The reported ERPP challenges suggest differences in how EAL and NES scholars approach writing about local issues in general, but they also suggest greater differences in how SSH and STEM scholars approach writing about local issues. The analysis of the reported ERPP challenges is multidimensional. First, the analysis draws on the concept of academic discourse communities and accessing it vis-à-vis specific epistemological frameworks. Then, it expands on defining the fertile concept of discourse communities within Bernstein's work on discourses to show how the specialized languages of the discourses can prompt isolation, especially for off-network scholars like the participants in this study. After establishing the complexity of achieving competency in the specialized languages of the global academic discourse communities because of geopolitical factors (in the case of this study, operating from a semiperipheral university), the analysis strives to address how EAL and NES scholars understand and later respond to the demands of the academic discourse communities when writing about local issues.

6.6.1 Limited resources on local issues

This study's finding suggested that both EAL and NES participants face challenges in writing about their local issues, similar to the challenges faced by other scholars who write from outside the Anglophone world. In fact, these challenges, since they are faced by both EAL and NES scholars, help in refuting the claims of linguistic injustice. More importantly, they suggest how there are more serious inequalities in knowledge

construction, such as the limited (or even discouraged) use of local literature to support research on local issues. In the Arab World, the limited literature written on the Arab world without colonial legacies has been a crucial area of concern in the works of sociology (Hanafi, 2011). As the leading linguist Kubota (2020) argued, scholars who write from outside the Anglophone sphere could face forms of epistemological racism, when they encounter obstacles in finding sources about their regions. Similar notions on injustice in accessing local sources and later accepting them by gatekeepers have been shared in Canagarajah's (2000) work.

The study's findings suggest that the inequality in knowledge construction is evident because of the lack of local sources and the institutional research evaluation systems that favour English-language publications. One of the key problems in the university system in the Arab world is that it requires publishing in English for promotion and tenure purposes. This has led to what Hanafi (2014) called "Publish globally and perish locally" (p. 292). Since many Arabic-speaking EAL scholars write in English, they engage in research tailored for Anglophone journals. Consequently, this has created different linguistic elites in the Arab World, who do not communicate with each other because they publish in different languages, similar to other multilingual scholars who do not publish in their native languages or do not collaborate with other researchers who publish in the same native languages.

This isolation starting at the institutional levels, mandated by the language of writing and sometimes the language of instruction, often leads to the creation of local discourse communities that belong to the same discipline but publish in different languages and journals. These linguistically compartmentalized discourse communities discourage Arabic-speaking scholars from working together, and, in many instances, accessing the sources available in different institutions that use different languages of instruction:

Arabic, English, and French. As some of the Arabic-speaking EAL researchers in the study explained: Arabic-speaking scholars who write their research in English do not read research written in Arabic and vice versa.

6.6.2 Power with(in) the academic discourse community

Since Arabic-speaking scholars are already divided into different discourse communities, which are often mandated by the language of instruction used in their own institutions, they seek to participate in the global discourse community, in response to the increasing publishing demands in many Arab universities. A serious challenge arises in how the participants realise their belonging in the global discourse communities, which are interested in maintaining their textual and conceptual powers (Bernstein, 1990; Hyland, 2014). Bernstein (1990) explains succinctly, how discourse communities become obsessed with persevering their repertoires and reservoirs, especially those with weak grammars in horizontal discourse. This understanding of the problematised discourse communities illuminates some of the struggles reported by the SSH scholars, in this study, when they tried to introduce new concepts or ideas to their discourse community. The SSH participants' accounts about the challenges they faced with the gatekeepers are similar to what Lillis and Curry (2019) reported on the challenges faced by EAL scholars when writing on local issues. On the other hand, academic discourse communities in vertical discourses seem to be less obsessed with preserving their powers because of their stronger grammar base. This strength possibly explains how many of the STEM participants in this study face fewer challenges in writing about their local issues than their SSH peers.

6.6.3 The off-network NES scholars

Since the NES scholars work in a university in the Arab world, it should be expected that they are familiar with writing about local issues, especially that many of them are engaged in researching local topics. Thus, it was not surprising how the EAL and NES scholars reported challenges in writing about local issues. However, the study's findings suggested how the EAL scholars demonstrated better abilities in understanding and negotiating the textual demands of writing about local issues. The success in EAL scholars in meeting the demands of the global academic discourse community has been recognized in the works of key linguistics such as Canagarajah (2002), Hyland (2004), and Swales (1990).

Arguably, it seems that EAL participants in this study are more used to addressing the needs of the global academic discourse community than their NES peers. One possible interpretation for why the EAL participants find it easier to negotiate the demands of the academic discourse community could be the historical ghettoizing of EAL writing. Canagarajah (2002) observed how earlier work on EAL\ESL\L2 writers, comparing them to L1 writers, was characterized by its careful description of their writing, steering away from expressing biased views of L2 writing. Consequently, discussions of EAL writers used cultural factors to justify their writing, which led to "benignly ghettoizing them under the guise of tolerating their differences" (p. 107). Yet, it is plausible to argue that since EAL writers are accustomed to receiving various feedback, ranging from the textual to the cultural, they became accustomed to addressing the needs of the global academic discourse community more than their NES peers.

6.7 Chapter Six Conclusion

Guided by the study's theoretical framework, this chapter analysed the study's findings, and it reasserted that there are more critical disparities in research writing and publishing besides the linguistic variable. In its discussion of LR reading and writing, this chapter argued that SSH scholars write the LR section in an RA, after their close reading of the literature, which employs different reading strategies, because of the weak grammars and the different languages in SSH disciplines. Arguably, the weak grammars in SSH disciplines can feed the anxiety of scholars who need to recontextualise the text because the segmental nature of many SSH disciplines does not make the acquisition of a new language an easy task. On the other hand, STEM scholars read the literature and write the LR section in an RA simultaneously because the strong grammars and the hierarchical knowledge structures in the vertical discourses, found in STEM disciplines, allow greater integration. Thus, STEM scholars who already locate their literature more systematically can write at the same time as they are reading. Finally, the chapter argued about the challenges that face EAL and NES scholars in accessing the global discourse communities when writing about their local issues. The study's analysis corresponds to the study's aims of unpacking the complexity of ERPP practices by emphasising the simplicity of the linguistic injustice claims, by arguing about the impact of disciplinary reading and writing conventions on research writing and publishing.

Chapter 7: Conclusion

“Linguistic injustice is a red herring that misleads or distracts from a relevant or important issue and that leads us towards a false conclusion” (Hultgren, 2019, p. 10).

7.1 Overview of the study

The introduction to this thesis made a case about the importance of investigating more disparities in research writing and publishing, beyond the limitations of linguistic binary. The study's theoretical framework, which emphasises the social and situated aspects of research writing, demonstrated how disciplinary writing conventions are necessary for understanding and investigating more critical disparities in research writing, especially outside the Anglophone world. The study's qualitative and comparative results asserted the limitations of the linguistic injustice dichotomy, yet it identified disciplinary differences as critical factors that impact research writing for EAL and NES scholars across the disciplines. This final chapter situates the contributions of this study to ERPP scholarship by answering the following four questions. First, what does this thesis contribute to understanding disciplinary differences in SSH and STEM writing for EAL and NES scholars? Second, how does this thesis address the linguistic injustice debate for EAL and NES scholars? Third, what are the ERPP challenges that face scholars who write outside the Anglophone world? Finally, what are the implications of this study for future ERPP research? This thesis began with a reminder about the role of writing in knowledge construction and academic life, and it ends with suggesting how this study can inform ERPP pedagogical practices for teaching writing the RA.

7.2 Disciplinary Writing Conventions and ERPP Practices

ERPP scholarship recognises how the ERPP experiences of multilingual scholars are impacted by their disciplinary affiliations (Curry & Lillis, 2018; Kwan, 2021). Yet, few works examined how discourse and discipline impact ERPP practices. More importantly, no comparative studies examined how EAL and NES scholars write about local topics, especially when they are based outside the Anglophone world, similar to this study. Not long ago, The World Social Sciences Report (2016) cautioned against inequality in global knowledge construction in social sciences research, which is still dominated by Euro-American voices; however, few actions were taken to address this growing inequality. In fact, the findings from this study identified how disciplinary differences play a role in widening this inequality. The study's results suggested how EAL scholars in SSH disciplines, based outside the Anglophone world, seem to face more challenges than their EAL peers in STEM disciplines when writing about their local issues.

The study's qualitative interviews with 22 EAL and NES scholars about their literature review reading and writing practices in STEM and SSH disciplines highlighted how the link between epistemology and academic discourse impacts research writing. The study's analysis of its qualitative findings suggested how the participants developed their awareness of the LR writing requirements, in light of the nature of discourses in their disciplines, and how they join their academic discourse communities (Hyland, 2004). The different reading and writing practices of STEM and SSH scholars emphasised how hierarchical knowledge (common in natural and hard sciences) and horizontal knowledge (common in social sciences) affect literature review reading and writing practices (Bernstein, 1999). In fact, this study's employment of Bernstein's work contributes a necessary understanding of disciplinarity and academic writing.

7.2.1 Bernstein and ERPP scholarship

This study contributes a new approach for understanding and discussing disciplinarity in academic writing, by drawing on Bernstein's work on knowledge structures, which moves beyond the textual investigations of disciplinarity commonly found in ERPP studies. For instance, Hyland's (2004) work drew on Foucault's work on disciplines by reminding us how they are restrictive and authorizing. In discussing disciplinarity, Sullivan (1996) emphasized that disciplinary constraints are: ideological perspectives, assumptions about the nature of things and methodologies, a system of hierarchical power relations, and a body of doctrinal knowledge. It is true that these seminal works have laid the foundations for serving ERPP practitioners in establishing the importance of understanding how disciplinary cultures imply a degree of interdisciplinary diversity and homogeneity.

Earlier ERPP scholarship investigated disciplinary difference in research writing, but these investigations were limited to the textual level (Ädel, 2022; Melander et al., 1997; Shaw & Vassileva, 2009) unlike this current study's investigation of disciplinary conventions through the lens of Bernstein's work on knowledge structures. Although Bernstein's work is rooted in the sociology of education, it offers valuable directions for understanding the knowledge structures and languages in the disciplines. The study's analysis of its qualitative interview data suggested how employing Bernstein's classifications of the discourses aids in understanding disciplinary variance and how it influences research writing and publishing practices. Thus, the study aims to establish new ways for understanding disciplinarity and the disparities in research writing.

7.3 The Injustice of the Linguistic Injustice Debate

This comparative study was designed in response to the calls in ERPP scholarship about the importance of conducting comparative studies of ERPP practices of EAL and NES scholars to substantiate or refute the claims of linguistic injustice. Employing qualitative analysis, the study compared how EAL and NES scholars in SSH and STEM disciplines search and read the literature to prepare for writing the literature review section in a research article. The study's qualitative findings suggested that there is no difference in how EAL and NES scholars approach reading and writing the literature review section in a research article; thus, asserting the possibility that linguistic injustice is indeed a myth, as postulated by Ken Hyland (2016).

Despite that the study provided enough evidence to question the validity of linguistic injustice in research writing and to rebuke the claims of NES linguistic privilege, the study identified a less discussed disparity in research writing. This study's investigation of the delicate interplay between the textual conventions in an RA, discipline, and discourse is one of its key contributions that asserts both the role of disciplinary conventions in research writing and the limitations of the linguistic injustice claims. The study's findings corroborate with other positions in ERPP scholarship that observed the global complexity of knowledge construction and warned against using linguistic injustice to distract from more serious inequalities in knowledge construction (Hultgren, 2019; Soler, 2021). Since the study's findings emphasised how disciplinary conventions impact knowledge production more than language for both its EAL and NES participants, the study asserted its primary claim on the limitations of the linguistic injustice argument. Yet, the study also revealed more critical ERPP challenges faced by scholars outside the Anglophone world.

7.4 ERPP Challenges

In terms of research writing and publishing outside the Anglophone world, the study identified critical ERPP challenges that are linked to the nature of disciplines and discourses. First, the study identified epistemological challenges in research writing across the disciplines noting how hierarchical and horizontal knowledge structures impact knowledge production. More specifically, the study's findings identified epistemological challenges faced by SSH scholars in their attempts of researching local topics. The study's accounts regarding the challenges that arise when writing about local issues were analysed, drawing on Canagarajah's work on the complexities faced by scholars who research local issues, and are based outside the Anglophone world.

Considering that the participants in this study work in a semiperipheral university, the challenges they face are similar to EAL scholars who work under similar conditions. However, more importantly, the accounts of the NES participants in this study, who also reported problems in writing about local issues, suggest that the increasing power of the Anglophone sphere as a knowledge powerhouse is not directly related to the role of the English language as the default academic language. Significant material conditions, infrastructures, and privileges mediate the power of the Anglophone world, besides the English language.

7.5 Limitations

The trustworthiness of the findings and their generalisability to other contexts are the two main types of limitations which need to be discussed when addressing how this study answered its research questions. To begin with, credibility is the first standardized measure of research quality in qualitative studies. Credibility refers to the authenticity of the findings and if the data is triangulated (Maxwell, 2012). This study predominantly used qualitative interview data. As a result, the study's data is internally

coherent, yet this agreement could be related to how all the participants work in the same institution and possibly share similar organisational contexts. Still, the fact that both EAL and NES scholars are based at the same university offered a realist understanding of their reading and writing experiences since their ERPP practices are governed by personal, institutional and national factors (Cargill & Burgess, 2008).

The generalisability of this study is limited due to the small number of participants, and the fact that this study was conducted in a single university. Thus, this study cannot claim to be representative of the experiences of EAL and NES scholars in other contexts. Yet, transferability is a more relevant and appropriate measure for assessing the limitations of this study. The transferability of the findings means that the findings can be relevant to other contexts. It is true that the EAL and NES scholars in this study work in a semiperipheral university in a country that is embracing a proactive research agenda; however, many of their experiences can be similar to EAL scholars in different parts of the world. More specifically, their experiences can be relevant to other EAL scholars who work in semiperipheral universities or universities that use EMI.

Another limitation of this study is that the experiences of the NES participants are not similar to other NES scholars who work in the Anglophone sphere since the NES participants are based outside the Anglophone world. Admittedly, this is one of the study's major limitations since the study's primary claim about the limitations of the linguistic injustice claim has been asserted via the comparative accounts of the EAL and NES participants. Yet, it is quite possible that the NES participants' accounts could have been different if they had been interviewed in North America or the UK. Still, the study's findings about LR reading and writing practices are expected to be the same as they reported on the participants' understanding of research writing, which is not mediated by their location.

7.6 Directions for Future Research

7.6.1 More research on semiperipheral universities outside Europe

This study strives to be the first amongst others that examine knowledge construction in semiperipheral universities outside Europe, especially since the limited work on the semiperipheral university is based on Europe. Also, this study aims to highlight the importance of expanding our understanding of ERPP experiences by including more linguistic groups and geographical areas. For instance, the critique of the old core/periphery dichotomy has been based on how it is heavily focused on the white, European, and Anglophone worlds, yet few works examined semiperipheral countries in Asia, Africa, and South America.

7.6.2 Epistemological racism research

This study reported several challenges that suggested how many scholars based outside the Anglophone sphere experience some forms of epistemological racism. The existing white, American, Euro-centric knowledge centres still favour and legitimise knowledge produced in the Euro/Anglo centres. Kubota (2020) raised critical concerns about some forms of epistemological racism in research publishing, when noting how knowledge from the non-White centre is often perceived as knowledge written by subaltern voices. Thus, more research should be conducted to examine how local knowledge can be disseminated in the centre while maintaining the inquiry's rigour.

7.6.3 More research on the global disparities in knowledge construction

The study's findings about the ERPP practices of EAL and NES academics based outside the Anglophone sphere offers new approaches to critically understand the disparities in knowledge construction. During the past two years, voices from different

places across the global South raised critical issues about the challenges faced by multilingual social scientists and their ERPP experiences (Guzmán-Valenzuela, 2022; Müller, 2020; Shin et al, 2021; Xu, 2020). Most of these voices explored different disparities and challenges in their research writing and publishing experiences such as favouring English-language publications in their universities' evaluation systems and gatekeeping practices that favour employing Euro-American epistemological frameworks, especially in the social sciences. More importantly, most of these voices emphasized how these challenges widen the existing North-South knowledge construction inequalities.

Although ERPP scholarship examines some of these inequalities, it still needs to critically address some of the less discussed reasons behind these inequalities drawing on the experiences of the EAL scholars and/or scholars outside the Anglophone sphere. In other words, the attempts to understand EAL and NES scholars' experiences should explicitly recognize the challenges they face as a result of the hegemony of the English language and the dominance of Western, American-Euro centric epistemological frameworks. Additionally, ERPP practitioners should develop new ways to promote more inclusive research writing and antiracism in gatekeeping practices. ERPP scholarship will benefit from developing new ways for encouraging border thinking by opening the door to defining what is global and what is of value to others.

7.6.4 More situated writing research in ERPP scholarship

ERPP and ESP scholarship is filled with research that examined writing using lexical bundles and bibliometric analysis. However, little research addresses how writers approach their writing tasks. ERPP scholarship will benefit from more research, focused on the situated aspects of the writing. For example, more studies are needed to

evaluate how EAL and NES scholars draft their research articles, which will shed more light on the various challenges faced by EAL and NES scholars and the role of the linguistic variable in the drafting stages. Research that aims to understand the writing process for publishing purposes is not only going to be helpful for scholars, but also it will be helpful for undergraduate and graduate students as they learn academic writing for publishing purposes.

7.6.5 Relevance of disciplinary writing for ERPP teaching

This study began with a reminder about how writing is central to knowledge construction and dissemination. The study's motivation for understanding the ERPP experiences of EAL and NES scholars in SSH and STEM disciplines was to explore the less discussed disparities in research writing and publishing. The study's findings asserted how disciplinary variables affect research reading and writing in multiple ways. Expectedly, ERPP and ESP practitioners should develop their ERPP instruction by focusing on disciplinary writing conventions to ensure that novice researchers are prepared to meet the textual and social demands of their academic discourse communities. Additionally, the field of ERPP needs to address the disparities in research writing, more critically and systematically, instead of conflating inequalities in research writing and publishing with language or using linguistic injustice as a "red herring" to camouflage other critical disparities (Hultgren, 2019). This study has brought together a persuasive case for why moving away from the limitations of the linguistic binary can reveal to us more critical disparities in research writing, which we can begin to address in our teaching and research.

References

- Abdeljaoued, M. (2018). Tunisian Academics at the Turbulent Times of the 'Jasmine Revolution': Publication Challenges and Survival Strategies. *Publishing Research Quarterly*, 34(3), 347-361.
- Abdeljaoued, M., & Labassi, T. (2021). English as the lingua franca of academic publishing in Tunisia. *World Englishes*, 40(2), 245-258.
- Abu-Orabi, S. (2013). Higher education and scientific research in the Arab World. 15th IAU General Conference Presentation. Chulalongkorn University, Bangkok, Thailand. https://www.hrk.de/fileadmin/redaktion/hrk/02-Dokumente/02-07-Internationales/02-07-15-Asien/02-07-15-1-Jordanien/Higher_Education_in_the_Arab_World_Dr_Sultan.pdf. Published December,
- Ädel, A. (2022). Writer and reader visibility in humanities research articles: Variation across language, regional variety and discipline. *English for Specific Purposes*, 65, 49-62.
- Afful, J. B. A., Ngula, R. S., Twumasi, R., Tetteh, G., & Mensah, F. (2022). Supervisors' Perceptions of Postgraduate Students' Thesis Literature Review Writing in a Ghanaian University. *Advances in Social Sciences Research Journal*, 9(1).
- Ahmad, U. K. (1997). Rhetoric in an emerging research community. *Culture and styles of academic discourse*, 104, 273.
- Åkerlind, & G. (2006). Phenomenographic methods: a case illustration. In Bowden, J., Green, & P. (Eds.), *Doing Developmental Phenomenography*. RMIT University Press.
- Al-Issa, A., & Dahan, L. S. (2011). *Global English and Arabic : issues of language, culture and identity*. Peter Lang. <http://site.ebrary.com/id/10600382>
- Al-Khasawneh, F. M. S., & Maher, S. (2010). Writing for academic purposes: Problems faced by Arab postgraduate students of the college of business, UUM. *ESP World*, 9(2), 1-23.
- Alamri, B. (2021). Multilingual Scholars' Experiences in Publishing in the Social Sciences and Humanities: Attitudes, Obstacles, and Initiatives in Saudi Arabia. *Journal of Scholarly Publishing*, 52(4), 248-272.
- Alamri, Y., Al-Busaidi, I. S., Bintalib, M. G., & Abu-Zaid, A. (2020, 2020/10/01/). Understanding of medical students about predatory journals: A comparative study from KSA and New Zealand. *Journal of Taibah University Medical Sciences*, 15(5), 339-343. <https://doi.org/https://doi.org/10.1016/j.jtumed.2020.07.010>
- Alharbi, S. (2016). Schematic structure of discussion of results sections in the field of Dentistry: A comparison of international and local English-medium journals. *Arab World English Journal (AWEJ) Volume*, 7.
- AlMaghlouth, N., Arvanitis, R., Cointet, J.-P., & Hanafi, S. (2015). Who frames the debate on the Arab uprisings? Analysis of Arabic, English, and French academic scholarship. *International sociology*, 30(4), 418-441.
- Almansour, S. (2016). The crisis of research and global recognition in Arab universities. *Near and Middle Eastern Journal of Research in Education*, 2016(1), 1.
- Almansour, S., & Kempner, K. (2017). The challenges of delivering public good in Arab universities: faculty perspectives. *Educational Research for Policy and Practice*, 16(3), 219-234.
- Alvesson, M., & Sandberg, J. (2011). Generating research questions through problematization. *Academy of management review*, 36(2), 247-271.
- Ammon, U. (2000). *Towards more fairness in international English: linguistic rights of non-native speakers?* Routledge.
- Amnuai, W., & Wannaruk, A. (2013). Investigating Move Structure of English Applied Linguistics Research Article Discussions Published in International and Thai Journals. *English Language Teaching*, 6(2), 1-13.
- Appadurai, A. (1996). *Modernity at large: Cultural dimensions of globalization* (Vol. 1). U of Minnesota Press.
- Arab League, T. (2014). *The regional report of Arab labor migration*. <https://www.zohry.com/pubs/LAS-Migration-2014.pdf>
- Aristotle, & Kennedy, G. A. (2007). *On rhetoric : a theory of civic discourse* (2nd ed. ed.). Oxford University Press. <http://catdir.loc.gov/catdir/enhancements/fy0636/2005055487-t.html>
<http://catdir.loc.gov/catdir/enhancements/fy0636/2005055487-d.html>
- Arvay, A., & Tankó, G. (2004). A contrastive analysis of English and Hungarian theoretical research article introductions.
- Ashmore, M., & Reed, D. (2005). Innocence and nostalgia in conversation analysis: The dynamic relations of tape and transcript. *Historical Social Research/Historische Sozialforschung*, 73-94.

- Atai, M. R., & Habibi, P. (2009). Exploring sub-disciplinary variations and generic structure of applied linguistics research article introductions using CARS Model. *Journal of English Language Pedagogy and Practice*, 2(5), 26-5
- Atkinson, D. (1996). The philosophical transactions of the Royal Society of London, 1675–1975: A sociohistorical discourse analysis. *Language in society*, 25(3), 333-371.
- Atkinson, D. (1998). *Scientific discourse in sociohistorical context: The Philosophical Transactions of the Royal Society of London, 1675-1975*. Routledge.
- Atkinson, D., & Ramanathan, V. (1995). Cultures of writing: An ethnographic comparison of L1 and L2 university writing/language programs. *TESOL quarterly*, 29(3), 539-568.
- Attride-Stirling, J. (2001). Thematic networks: an analytic tool for qualitative research. *Qualitative research*, 1(3), 385-405.
- Badry, F. (2011). Education in the UAE: Local identity and global developments. In F. Badri & J. Willoughby (Eds.), *Essentials of school education in the UAE*. Emirates Center for Strategic Studies and Research. .
- Badry, F., & Willoughby, J. (2016). *Higher education revolutions in the Gulf: Globalization and institutional viability*. Taylor & Francis.
- Barber, C. L. (1962). Some measurable characteristics of modern scientific prose. *Contributions to English syntax and philology*, 21-43.
- Barness, J., & Papaelias, A. (2021). Readable, Serious, Traditional: Investigating Scholarly Perceptions of the Visual Design and Reading Experiences of Academic Journals. *She Ji: The Journal of Design, Economics, and Innovation*, 7(4), 540-564.
- Barton, D., & Hamilton, M. (1998). *Local literacies : reading and writing in one community*. Routledge.
- Barton, D., Hamilton, M., & IvaniÚc, R. (Eds.). (2000). *Situated literacies* (pp. 7-15). London: Routledge.
- Braxton, J. M. (1995). Disciplines with an Affinity for the Improvement of Undergraduate Education. *New directions for teaching and learning*, 64, 59-64.
- Bazerman, C. (1984). Modern evolution of the experimental report in physics: Spectroscopic articles in *Physical Review*, 1893-1980. *Social studies of science*, 14(2), 163-196.
- Bazerman, C. (1988). *Shaping written knowledge: The genre and activity of the experimental article in science* (Vol. 356). University of Wisconsin Press Madison.
- Bazerman, C. (1994). Systems of genres and the enactment of social intentions. *Genre and the new rhetoric*, 79101.
- Becher, T. (1989). *Academic tribes and territories : intellectual enquiry and the cultures of disciplines*. Society for Research into Higher Education : Open University Press.
- Becher, T. (1994). The significance of disciplinary differences. *Studies in Higher Education*, 19(2), 151-161.
- Becher, T. (2001). *Academic tribes and territories : intellectual enquiry and the cultures of disciplines* (2nd ed. ed.). Open U.P.
- Belhiah, H., & Elhami, M. (2015). English as a medium of instruction in the Gulf: When students and teachers speak. *Language Policy*, 14(1), 3-23.
- Bennett, K. (2007, 2007/11/01). Epistemicide! *The Translator*, 13(2), 151-169. <https://doi.org/10.1080/13556509.2007.10799236>
- Bennett, K. (2014). *The semiperiphery of academic writing: Discourses, communities and practices*. Springer.
- Bentley, P., & Kyvik, S. (2011). Academic staff and public communication: a survey of popular science publishing across 13 countries. *Public understanding of science*, 20(1), 48-63.
- Bernstein, B. (1999). Vertical and horizontal discourse: An essay. *British journal of sociology of education*, 20(2), 157-173.
- Bitchener, J., & Basturkmen, H. (2006). Perceptions of the difficulties of postgraduate L2 thesis students writing the discussion section. *Journal of English for Academic Purposes*, 5(1), 4-18.
- Bizzell, P. (1982). College composition: Initiation into the academic discourse community. *Curriculum Inquiry* 12(2). 191-207.
- Blau, J. (1994). A Melkite Arabic literary lingua franca from the second half of the first millennium. *Bulletin of the School of Oriental and African Studies*, 57(1), 14-16.
- Bocanegra-Valle, A. (2014). 'English is my default academic language': Voices from LSP scholars publishing in a multilingual journal. *Journal of English for Academic Purposes*, 13, 65-77.
- Boell, S. K., & Cecez-Kecmanovic, D. (2014). A hermeneutic approach for conducting literature reviews and literature searches. *Communications of the Association for information Systems*, 34(1), 12.
- Boote, D. N., & Beile, P. (2005). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational researcher*, 34(6), 3-15.

- Booth, S. (1997). On phenomenography, learning and teaching. *Higher education research & development, 16*(2), 135-158.
- Boufarss, M., & Harviainen, J. T. (2021). Librarians as gate-openers in open access publishing: A case study in the United Arab Emirates. *The Journal of Academic Librarianship, 47*(5), 102425.
- Bourdieu, P., Passeron, J.-C., & Saint-Martin, M. D. (1994). *Academic discourse : linguistic misunderstanding and professorial power*. Stanford University Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology, 3*(2), 77-101.
- Brinkmann, S., & Kvale, S. (2015). Conducting an interview. *Interviews. Learning the craft of qualitative research Interviewing*, 149-166.
- Bruce, C. (2001). Interpreting the scope of their literature reviews: significant differences in research students' concerns. *New Library World*.
- Bulté, B., & Housen, A. (2014). Conceptualizing and measuring short-term changes in L2 writing complexity. *Journal of Second Language Writing, 26*, 42-65.
- Burgess, S., Gea-Valor, M. L., Moreno, A. I., & Rey-Rocha, J. (2014). Affordances and constraints on research publication: A comparative study of the language choices of Spanish historians and psychologists. *Journal of English for Academic Purposes, 14*, 72-83.
- Bunton, D. (2005). The structure of PhD conclusion chapters. *Journal of English for Academic Purposes, 4*(3), 207-224.
- Cameron, M. E., Schaffer, M., & Park, H.-A. (2001). Nursing Students' Experience of Ethical Problems and Use of Ethical Decision-Making Models. *Nursing Ethics, 8*(5), 432-447.
<https://doi.org/10.1177/09697330010080050>
- Canagarajah, A. S. (2002). *A geopolitics of academic writing*. University of Pittsburgh Press.
- Canagarajah, S. (2017). *The Routledge handbook of migration and language*. Taylor & Francis.
- Canagarajah, S. (2018). English as a spatial resource and the claimed competence of Chinese STEM professionals. *World Englishes, 37*(1), 34-50.
- Canagarajah, S. (2020). Reconsidering material conditions in language politics: A revised agenda for resistance. *Nordic Journal of English Studies, 19*(3), 101-114.
- Canagarajah, S. (2022). Challenges in decolonizing linguistics: the politics of enregisterment and the divergent uptakes of translanguaging. *Educational Linguistics*.
- Cargill, M., & Burgess, S. (2008). Introduction to the special issue: English for research publication purposes. *Journal of English for Academic Purposes, 2*(7), 75-76.
- Casanave, C. P. (1998). Transitions: The balancing act of bilingual academics. *Journal of Second Language Writing, 7*(2), 175-203.
- Case, J. M., & Light, G. (2011). Emerging research methodologies in engineering education research. *Journal of Engineering Education, 100*(1), 186-210.
- Chen, D.-T. V., Wang, Y.-M., & Lee, W. C. (2016). Challenges confronting beginning researchers in conducting literature reviews. *Studies in Continuing Education, 38*(1), 47-60.
- Chen, G., & Xiao, L. (2016). Selecting publication keywords for domain analysis in bibliometrics: a comparison of three methods. *Journal of Informetrics, 10*(1), 212-223.
- Chen, X., & Li, M. (2019). Chinese learner writers' niche establishment in the Literature Review chapter of theses: A diachronic perspective. *Journal of English for Academic Purposes, 39*, 48-58.
- Chin, E. (1994). Redefining "context" in research on writing. *Written communication, 11*(4), 445-482.
- Christie, F., & Maton, K. (Eds.). (2011). *Disciplinary: Functional linguistic and sociological perspectives*. Bloomsbury Publishing.
- Cho, S. (2004). Challenges of Entering Discourse Communities Through Publishing in English: Perspectives of Nonnative-Speaking Doctoral Students in the United States of America. *Journal of Language, Identity & Education, 3*(1), 47-72. https://doi.org/10.1207/s15327701jlie0301_3
- Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The psychologist, 26*(2).
- Clayton, E. W. (2004). The Audience for Aristotle's Rhetoric. *Rhetorica, 22*(2), 183-203.
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research Methods in Education* (5th Edition ed.). Routledge.
- Combs, J. P., Bustamante, R. M., & Onwuegbuzie, A. J. (2010). An interactive model for facilitating development of literature reviews. *International Journal of Multiple Research Approaches, 4*(2), 159-182.
- Cooper, H. M. (1989). *Integrating research: A guide for literature reviews*. Sage Publications, Inc.
- Corcoran, J. (2019). Addressing the "Bias Gap": A Research-Driven Argument for Critical Support of Plurilingual Scientists' Research Writing. *Written communication, 36*(4), 538-577.

- Corcoran, J. N., Englander, K., & Mureşan, L. (2019). *Pedagogies and policies for publishing research in English: Local initiatives supporting international scholars*. Routledge New York.
- Corcoran, J. N., Englander, K., & Muresan, L.-M. (2019). Diverse global perspectives on scholarly writing for publication. In *Pedagogies and Policies for Publishing Research in English* (pp. 1-16). Routledge.
- Costandi, S., Hamdan, A., Alareeni, B., & Hassan, A. (2019). Educational governance and challenges to universities in the Arabian Gulf region. *Educational Philosophy and Theory*, 51(1), 70-86.
- Council, I. S. S. (2016). *World social science report, 2016: Challenging inequalities; pathways to a just world*.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. *Handbook of mixed methods in social and behavioral research*, 209(240), 209-240.
- Creswell, J. W. (2009). *Research designs: Qualitative, quantitative, and mixed methods approaches*. California: Sage.
- Creswell, J. W. (2017). *Designing and conducting mixed methods research* (Third edition, International student edition. ed.).
- Crystal, D. (2003). *English as a global language*. Ernst Klett Sprachen.
- Crystal, D. (2020). Global English and Social Injustice: The Need to Listen. *Nordic Journal of English Studies*, 19(3), 165-174.
- Curry, M. J., & Hanauer, D. I. (2014). *Language, literacy, and learning in STEM education: Research methods and perspectives from applied linguistics* (Vol. 1). John Benjamins Publishing Company.
- Curry, M. J., & Lillis, T. (2017). Problematizing English as the privileged language of global academic publishing. *Global academic publishing: Policies, practices, and pedagogies*, 1-22.
- Curry, M. J., & Lillis, T. (2019). Unpacking the lore on multilingual scholars publishing in English: A discussion paper. *Publications*, 7(2), 27.
- Dahan, L. S. (2015). *A critical examination of the significance of Arabic in realizing an Arab identity: The perspectives of Arab youth at an English medium university in the United Arab Emirates*
- Dahl, T. (2004). Textual metadiscourse in research articles: a marker of national culture or of academic discipline?. *Journal of pragmatics*, 36(10), 1807-1825.
- Damayanthi, S. (2019). *Thematic analysis of interview data in the context of management controls research*. SAGE Publications, Limited.
- Darquennes, J., & Nelde, P. (2006). German as a lingua franca. *Annual Review of Applied Linguistics*, 26, 61-77.
- Del Saz Rubio, M. M. (2011). A pragmatic approach to the macro-structure and metadiscoursal features of research article introductions in the field of Agricultural Sciences. *English for Specific Purposes*, 30(4), 258-271.
- Demeter, M. (2020). *Academic knowledge production and the global south: Questioning inequality and under-representation*. Springer.
- Dearden, J. (2015). English as a medium of instruction — a growing global phenomenon. London: British Council. Retrieved from https://www.britishcouncil.org/sites/default/files/e484_emi_cover_option_3_final_web
- Diani, G. (2014). On English and Italian Research Article Abstracts: Genre Variation across Cultures. *Linguistic Insights - Studies in Language and Communication*, 187, 65-83.
- Doró, K. (2013). The rhetoric structure of research article abstracts in English studies journals. *Prague Journal of English Studies*, 2(1), 119-139.
- Dorsey, C. (2018). The role of English in the United Arab Emirates and resulting implications for English teaching. *Preprint*.
- Dudley-Evans, T. (1986). Genre analysis: An investigation of the introduction and discussion sections of MSc dissertations. *Talking about text*, 14, 128.
- Duranti, A. (2006). Transcripts, like shadows on a wall. *Mind, Culture, and Activity*, 13(4), 301-310.
- Eberhard, D. M., Simons, G. F., & Fennig, C. D. (Eds.). (2020). *Ethnologue: Languages of the world*. (23 ed.). SIL International.
- Eckstein, G., & Ferris, D. (2018). Comparing L1 and L2 texts and writers in first-year composition. *TESOL quarterly*, 52(1), 137-162.
- El-Dakhs, D. A. S., & El-Dakhs, D. (2020). Are Arabic and English Research Article Abstracts Different? Rhetorical Structure & Interaction in Focus. *The Asian ESP Journal*, 16(5.1), 6-32.
- ElMalik, A. T., & Nesi, H. (2008). Publishing research in a second language: The case of Sudanese contributors to international medical journals. *Journal of English for Academic Purposes*, 7(2), 87-96.

- Eppard, J., Bailey, F., McKeown, K., & Singh, H. (2021). Expatriate faculty and student perspectives on teaching and learning in a United Arab Emirates university. *Issues in Educational Research*, 31(2), 458-475.
- Eriksson, S., & Helgesson, G. (2018). Time to stop talking about 'predatory journals'. *Learned Publishing*, 31(2).
- Escudero, M. P., & Swales, J. M. (2011). Tracing convergence and divergence in pairs of Spanish and English research article abstracts. *Ibérica*(21), 49-70.
- Expatica. (June 21, 2022). *Introduction to Arabic: the language of the UAE*. <https://www.expatica.com/ae/education/language-learning/introduction-to-arabic-the-language-of-the-united-arab-emirates-71422/#Languages>
- Fakhri, A. (2004). Rhetorical properties of Arabic research article introductions. *Journal of Pragmatics*, 36(6), 1119-1138.
- Fazel, I. (2019). Writing for publication as a native speaker: The experiences of two Anglophone novice scholars. In *Novice writers and scholarly publication* (pp. 79-95). Springer.
- Feng, H., Beckett, G. H., & Huang, D. (2013). From 'import' to 'import—export' oriented internationalization: the impact of national policy on scholarly publication in China. *Language Policy*, 12(3), 251-272.
- Ferguson, G., Pérez-Llantada, C., & Plo, R. (2011). English as an international language of scientific publication: a study of attitudes. *World Englishes*, 30(1), 41-59. <https://doi.org/https://doi.org/10.1111/j.1467-971X.2010.01656.x>
- Flowerdew, J. (2000). Discourse community, legitimate peripheral participation, and the nonnative-English-speaking scholar. *TESOL quarterly*, 34(1), 127-150.
- Flowerdew, J. (2001). *Research perspectives on English for academic purposes*. Cambridge U.P.
- Flowerdew, J. (2015). Some thoughts on English for research publication purposes (ERPP) and related issues. *Language Teaching*, 48(2), 250-262.
- Flowerdew, J. (2019). The linguistic disadvantage of scholars who write in English as an additional language: Myth or reality. *Language Teaching*, 52(2), 249-260.
- Flowerdew, J., & Habibie, P. (2021). *Introducing English for research publication purposes*. Routledge.
- Foucault, M. (1972). *The Archaeology of knowledge*.
- Friese, S. (2019). *Qualitative Data Analysis with ATLAS.ti*. Sage Publications.
- Geertz, C. (2000). *Local knowledge : further essays in interpretive anthropology*. Basic Books.
- Giannoni, D. S. (2008). Medical writing at the periphery: The case of Italian journal editorials. *Journal of English for Academic Purposes*, 7(2), 97-107.
- Gibbs, W. W. (1995). Lost science in the third world. *Scientific american*, 273(2), 92-99.
- Gil-Salom, L., & Soler-Monreal, C. (2014). Writers' positioning in literature reviews in English and Spanish computing doctoral theses. *Journal of English for Academic Purposes*, 16, 23-39.
- Glaser, B. G. (2001). *The grounded theory perspective: Conceptualization contrasted with description*. sociology press.
- Gledhill, J., & Hodes, M. (2019). Engaging NHS staff in research: training is key. *Bmj*, 366, 15040. <https://doi.org/10.1136/bmj.15040>
- Green, B. N., Johnson, C. D., & Adams, A. (2006). Writing narrative literature reviews for peer-reviewed journals: secrets of the trade. *Journal of chiropractic medicine*, 5(3), 101-117.
- Guardiano, C., Favilla, M. E., & Calaresu, E. (2007). Stereotypes about English as the language of science. *AILA Review*, 20(1), 28-52.
- Gunnarsson, B.-L. (2000). Swedish tomorrow—a product of the linguistic dominance of English? *Current Issues in Language & Society*, 7(1), 51-69.
- Gnutzmann, C., & Rabe, F. (2014). 'Theoretical subtleties' or 'text modules'? German researchers' language demands and attitudes across disciplinary cultures. *Journal of English for academic Purposes*, 13, 31-40
- Habibie, P. (2016). Writing for scholarly publication in a Canadian higher education context: A case study. In *Research literacies and writing pedagogies for masters and doctoral writers* (pp. 51-67). Brill.
- Hanafí, S. (2011). University systems in the Arab East: Publish globally and perish locally vs publish locally and perish globally. *Current Sociology*, 59(3), 291-309.
- Hanafí, S., & Arvanitis, R. (2014). The marginalization of the Arab language in social science: Structural constraints and dependency by choice. *Current Sociology*, 62(5), 723-742.
- Hanafí, S., & Arvanitis, R. (2015). *Knowledge production in the Arab World: the impossible promise*. Routledge.
- Hanauer, D. I., & Englander, K. (2011). Quantifying the burden of writing research articles in a second language: Data from Mexican scientists. *Written communication*, 28(4), 403-416.

- Hanauer, D. I., Sheridan, C. L., & Englander, K. (2019). Linguistic Injustice in the Writing of Research Articles in English as a Second Language: Data From Taiwanese and Mexican Researchers. *Written communication*, 36(1), 136-154.
- Hart, C. (1998). *Hart, Chris, Doing a Literature Review: Releasing the Social Science Research Imagination*. London: Sage, 1998.
- Hart, C. (2001). *Doing a literature search: a comprehensive guide for the social sciences*. Sage.
- Hasrati, M. (2005). Legitimate peripheral participation and supervising Ph. D. students. *Studies in Higher Education*, 30(5), 557-570.
- Healey, M. (2000). Developing the scholarship of teaching in higher education: A discipline-based approach. *Higher Education Research & Development*, 19(2), 169-189.
- Hirano, E. (2009). Research article introductions in English for specific purposes: A comparison between Brazilian Portuguese and English. *English for Specific Purposes*, 28(4), 240-250.
- Hirose, K. (2003). Comparing L1 and L2 organizational patterns in the argumentative writing of Japanese EFL students. *Journal of Second Language Writing*, 12(2), 181-209.
- Holliday, A. (2005). *The struggle to teach English as an international language*. Oxford University Press.
- House, J. (2003). English as a lingua franca: A threat to multilingualism? *Journal of Sociolinguistics*, 7(4), 556-578.
- Huang, J. C. (2010). Publishing and learning writing for publication in English: Perspectives of NNES PhD students in science. *Journal of English for Academic Purposes*, 9(1), 33-44.
- Huddleston, R. D. (1973). The Sentence in Writing English: A Syntactic Study Based on an Analysis of Scientific Texts. *Foundations of Language*, 9(3).
- Hultgren, A. K. (2019). English as the language for academic publication: On equity, disadvantage and ‘non-nativeness’ as a red herring. *Publications*, 7(2), 31.
- Hultgren, A. K. (2020a). Global English: From “Tyrannosaurus rex” to “red herring”. *Nordic Journal of English Studies*, 19(3), 10-34.
- Hultgren, A. K. (2020b). Introduction: Global English and social justice. *Nordic Journal of English Studies*, 19(3), 1-9.
- Hultgren, A. K., Gregersen, F., & Thøgersen, J. (2014). *English in Nordic universities: Ideologies and practices* (Vol. 5). John Benjamins Publishing Company.
- Hultgren, A. K., Owen, N., Shrestha, P., Kuteeva, M., & Mežek, Š. (2022). Assessment and English as a medium of instruction: Challenges and opportunities. *Journal of English-Medium Instruction*, 1(1), 105-123.
- Hyland, K. (2004). *Disciplinary discourses : social interactions in academic writing* (Michigan classics ed.). University of Michigan Press.
- Hyland, K. (2009). *Teaching and researching writing [electronic resource]* (2nd ed. ed.). Longman.
- Hyland, K. (2014). *Disciplinary discourses: Writer stance in research articles*. Routledge.
- Hyland, K. (2016). Academic publishing and the myth of linguistic injustice. *Journal of Second Language Writing*, 31, 58-69.
- Hyland, K., & Jiang, F. K. (2019). *Academic discourse and global publishing: Disciplinary persuasion in changing times*. Routledge.
- Imminent. (2023). *United Arab Emirates*. Retrieved Jan 10, 2023 from <https://imminent.translated.com/data-index/united-arab-emirates>
- Info, S. (2009). *Migrating Arab Brains: Little Gain and Immense Loss. (Translated title)*. Retrieved Jan 01, 2022 from <https://www.swissinfo.ch/ara/%D8%A7%D9%84%D8%B9%D9%82%D9%88%D9%84-%D8%A7%D9%84%D8%B9%D8%B1%D8%A8%D9%8A%D8%A9-%D8%A7%D9%84%D9%85%D9%87%D8%A7%D8%AC%D8%B1%D8%A9----%D9%85%D9%83%D8%A7%D8%B3%D9%80%D8%A8--%D9%82%D9%80%D9%84%D9%80%D9%8A%D9%80%D9%84%D9%80%D8%A9-%D9%88%D8%AE%D9%80%D8%B3%D9%80%D8%A7%D8%A6%D9%80%D8%B1--%D9%81%D9%80%D8%A7%D8%AF%D8%AD%D9%80%D8%A9-/301014>
- Isaac, S. (2021). *Epistemic Practices: A Framework for Characterising Engineering Students' Epistemic Cognition*. Lancaster University (United Kingdom).
- Işık-Taş, E. E. (2018). Authorial identity in Turkish language and English language research articles in Sociology: The role of publication context in academic writers' discourse choices. *English for Specific Purposes*, 49, 26-38.
- Jalongo, M. R., Boyer, W., & Ebbeck, M. (2014). Writing for scholarly publication as “tacit knowledge”: A qualitative focus group study of doctoral students in education. *Early Childhood Education Journal*, 42(4), 241-250.

- Jinha, A. E. (2010). Article 50 million: an estimate of the number of scholarly articles in existence. *Learned Publishing*, 23(3), 258-263.
- Johnson, R., Watkinson, A., & Mabe, M. (2018). *The STM report: An overview of scientific and scholarly publishing*.
https://policycommons.net/artifacts/1575771/2018_10_04_stm_report_2018/2265545/
- Kamler, B., & Thomson, P. (2008). The failure of dissertation advice books: Toward alternative pedagogies for doctoral writing. *Educational researcher*, 37(8), 507-514.
- Khoo, C. S., Na, J. C., & Jaidka, K. (2011). Analysis of the macro-level discourse structure of literature reviews. *Online Information Review*.
- Krishnan, A. (2009). What are academic disciplines? Some observations on the disciplinarity versus interdisciplinarity debate. National Centre for Research Methods Working Paper, University of Southampton.
- King, D. (2001). How, What, and Why Science Faculty Read Helen Belefant-Miller. *SCIENCE AND TECHNOLOGY LIBRARIES*, 19(2), 91-112.
- King, D. W., & Tenopir, C. (1999). Using and Reading Scholarly Literature. *Annual review of information science and technology (ARIST)*, 34, 423-477.
- Knorr-Cetina, K. D. (1981). Social and scientific method or what do we make of the distinction between the natural and the social sciences? *Philosophy of the Social Sciences*, 11(3), 335-359.
- Koblitz, A. H. (2016). Life in the Fast Lane: Arab Women in Science and Technology. *Bulletin of science, technology & society*, 36(2), 107-117. <https://doi.org/10.1177/0270467616658745>
- Kubota, R. (2020). Confronting Epistemological Racism, Decolonizing Scholarly Knowledge: Race and Gender in Applied Linguistics. *Applied Linguistics*, 41(5), 712-732.
<https://doi.org/10.1093/applin/amz033>
- Kubota, R., & Lin, A. (2009). Race, culture, and identities in second language education. *Race, culture and identities in second language education: Exploring critically engaged practice*, 1-23.
- Kuhn, T. S. (1970). *The structure of scientific revolutions* (Vol. 111). University of Chicago Press
- Kulczycki, E., Guns, R., Pölonen, J., Engels, T. C., Rozkosz, E. A., Zuccala, A. A., Bruun, K., Eskola, O., Starčić, A. I., & Petr, M. (2020). Multilingual publishing in the social sciences and humanities: A seven-country European study. *Journal of the Association for Information Science and Technology*, 71(11), 1371-1385.
- Kuteeva, M., & Mauranen, A. (2014). Writing for publication in multilingual contexts: An introduction to the special issue. *Journal of English for Academic Purposes*, 13(1), 1-4.
- Kwan, B. (2021, 6/5). Disciplinarity in Discipline-Specific Studies of the Research Article (RA). 6th International Conference of Asia-Pacific LSP & Professional Communication Association (LSPPC6),
- Kwan, B. S. (2006). The schematic structure of literature reviews in doctoral theses of applied linguistics. *English for Specific Purposes*, 25(1), 30-55.
- Kwan, B. S. (2008). The nexus of reading, writing and researching in the doctoral undertaking of humanities and social sciences: Implications for literature reviewing. *English for Specific Purposes*, 27(1), 42-56.
- Kwan, B. S., Chan, H., & Lam, C. (2012). Evaluating prior scholarship in literature reviews of research articles: A comparative study of practices in two research paradigms. *English for Specific Purposes*, 31(3), 188-201.
- Kwan, B. S. C. (2021). Nature of disciplinarity: What do discipline-specific studies of research articles need to consider? *Journal of English for Research Publication Purposes*, 2(1), 62-80.
<https://doi.org/https://doi.org/10.1075/jerpp.20023.kwa>
- Langum, V., & Sullivan, K. P. (2017). Writing academic English as a doctoral student in Sweden: narrative perspectives. *Journal of Second Language Writing*, 35, 20-25.
- Larsen-Freeman, D. (2006). The emergence of complexity, fluency, and accuracy in the oral and written production of five Chinese learners of English. *Applied Linguistics*, 27(4), 590-619.
- Late, E., Tenopir, C., Talja, S., & Christian, L. (2019). Reading practices in scholarly work: from articles and books to blogs. *Journal of Documentation*.
- Lather, P. (1999). To be of use: The work of reviewing. *Review of Educational Research*, 69(1), 2-7.
- Lattuca, L. R., & Stark, J. S. (1994). Will disciplinary perspectives impede curricular reform?. *The Journal of Higher Education*, 65(4), 401-426.L
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation* (Vol. 521423740). Cambridge university press Cambridge.
- Lee, H., & Lee, K. (2013). Publish (in international indexed journals) or perish: Neoliberal ideology in a Korean university. *Language Policy*, 12(3), 215-230.

- LePine, J. A., & King, A. W. (2010). Editors' comments: Developing novel theoretical insight from reviews of existing theory and research. *Academy of Management Review*, 35(4), 506-509.
- Li, Y., & Flowerdew, J. (2009). International engagement versus local commitment: Hong Kong academics in the humanities and social sciences writing for publication. *Journal of English for Academic Purposes*, 8(4), 279-293.
- Li, Y., & Flowerdew, J. (2020). Teaching English for Research Publication Purposes (ERPP): A review of language teachers' pedagogical initiatives. *English for Specific Purposes*, 59, 29-41.
- Liao, G. (2011). On the development of reading ability. *Theory and Practice in Language Studies*, 1(3), 302-305.
- Lillis, T. (2004). Multilingual Scholars and the Imperative to Publish in English: Negotiating Interests, Demands, and Rewards. *TESOL quarterly*, 38(4), 663-688. <https://doi.org/10.2307/3588284>
- Lillis, T. (2012). Economies of Signs in Writing for Academic Publication: The Case of English Medium "National" Journals. *JAC*, 695-722.
- Lillis, T., & Curry, M. J. (2006). Professional academic writing by multilingual scholars: Interactions with literacy brokers in the production of English-medium texts. *Written communication*, 23(1), 3-35.
- Lillis, T., & Curry, M. J. (2011). Academic writing in a global context: The politics and practices of publishing in English. *World Englishes (New York: Routledge)*, 30(3), 444-447.
- Lillis, T., & Curry, M. J. (2018). Trajectories of knowledge and desire: Multilingual women scholars researching and writing in academia. *Journal of English for Academic Purposes*, 32, 53-66.
- Lillis, T., Magyar, A., & Robinson-Pant, A. (2010). An international journal's attempts to address inequalities in academic publishing: Developing a writing for publication programme. *Compare*, 40(6), 781-800.
- Lillis, T., & Scott, M. (2007). Defining academic literacies research: Issues of epistemology, ideology and strategy. *Journal of applied linguistics*, 4(1), 5-32.
- Lillis, T. M., & Curry, M. J. (2010). *Academic writing in global context*. Routledge London.
- Lin, L., & Evans, S. (2012). Structural patterns in empirical research articles: A cross-disciplinary study. *English for Specific Purposes*, 31(3), 150-160.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. sage.
- Loi, C. K. (2010). Research article introductions in Chinese and English: A comparative genre-based study. *Journal of English for Academic Purposes*, 9(4), 267-279.
- López-Navarro, I., Moreno, A. I., Quintanilla, M. Á., & Rey-Rocha, J. (2015). Why do I publish research articles in English instead of my own language? Differences in Spanish researchers' motivations across scientific domains. *Scientometrics*, 103(3), 939-976.
- Louis, C., Keith, M., & Lawrence, M. (2000). *Research methods in education 5th edition*. New York.
- Luo, N., & Hyland, K. (2016). Chinese academics writing for publication: English teachers as text mediators. *Journal of Second Language Writing*, 33(C), 43-55. <https://doi.org/10.1016/j.jslw.2016.06.005>
- Macaro, E., Curle, S., Pun, J., An, J., & Dearden, J. (2018). A systematic review of English medium instruction in higher education. *Language Teaching*, 51(1), 36-76.
- Machi, L. A., & McEvoy, B. T. (2009). *The Literature review : six steps to success*. Corwin Press.
- Martön, F. (1986). Phenomenography—a research approach to investigating different understanding of reality. *Journal of Thought*, 21(3), 28-49.
- Mauranen, A. (1993). Contrastive ESP rhetoric: Metatext in Finnish-English economics texts. *English for Specific Purposes*, 12(1), 3-22.
- Mauranen, A., Hynninen, N., & Ranta, E. (2010). English as an academic lingua franca: The ELFA project. *English for Specific Purposes*, 29(3), 183-190.
- Maxwell, J. A. (2008). *Designing a qualitative study* (Vol. 2). The SAGE handbook of applied social research methods.
- Maxwell, J. A. (2012). *Qualitative research design: An interactive approach*. Sage publications.
- McAlpine, L. (2012). Shining a light on doctoral reading: Implications for doctoral identities and pedagogies. *Innovations in Education and Teaching International*, 49(4), 351-361.
- McCulloch, S., Tusting, K., & Hamilton, M. (2017). The role of networked learning in academics' writing. *Research in Learning Technology*, 25.
- McDowell, L., & Liardét, C. L. (2019). Japanese materials scientists' experiences with English for research publication purposes. *Journal of English for Academic Purposes*, 37, 141-153.
- McKinley, J., & Rose, H. (2018). Conceptualizations of language errors, standards, norms and nativeness in English for research publication purposes: An analysis of journal submission guidelines. *Journal of Second Language Writing*, 42, 1-11.

- McNeill, J. (1997). Latin, the renaissance lingua franca, and English, the 20th century language of science: their role in biotaxonomy. *Taxon*, 46(4), 751-757.
- Melander, B., Swales, J., Fredrickson, K. (1997). Journal abstracts from three academic fields in the United States and Sweden: national or disciplinary proclivities? In: Duszak, A. (Ed.), *Culture and Styles of Academic Discourse*. Mouton de Gruyter: Berlin/New York. pp. 251–272.
- Merga, M. K., & Mason, S. (2021). Doctoral education and early career researcher preparedness for diverse research output production. *Journal of Further and Higher Education*, 45(5), 672-687.
- Mikulecky, B. S., & Jeffries, L. (2007). Advanced reading power: Extensive reading, vocabulary building, comprehension skills, reading faster.
- Mills, D., & Inouye, K. (2021). Problematizing ‘predatory publishing’: A systematic review of factors shaping publishing motives, decisions, and experiences. *Learned Publishing*, 34(2), 89-104.
- Mitchell, E. S. (1986). Multiple triangulation: a methodology for nursing science. *Advances in nursing science*.
- Mitwalli, H., Al Ghamdi, K., & Moussa, N. (2014). Perceptions, attitudes, and practices towards research among resident physicians in training in Saudi Arabia. *EMHJ-Eastern Mediterranean Health Journal*. 2014; 20 (2): 99-104.
- Monteiro, K., & Hirano, E. (2020, 2020/04/01/). A periphery inside a semi-periphery: The uneven participation of Brazilian scholars in the international community. *English for Specific Purposes*, 58, 15-29. <https://doi.org/https://doi.org/10.1016/j.esp.2019.11.001>
- Moreno, A. I., Rey-Rocha, J., Burgess, S., López-Navarro, I., & Sachdev, I. (2012). Spanish researchers’ perceived difficulty writing research articles for English-medium journals: The impact of proficiency in English versus publication experience. *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos*, 24, 157-183.
- Mortensen, J., & Haberland, H. (2012). English—the new Latin of academia? Danish universities as a case. *International journal of the sociology of language*, 2012(216), 175-197.
- Müller, M. (2020). In search of the global east: Thinking between north and south. *Geopolitics*, 25(3), 734-755.
- Muresan, L.-M., & Pérez-Llantada, C. (2014). English for research publication and dissemination in bi-/multiliterate environments: The case of Romanian academics. *Journal of English for Academic Purposes*, 13, 53-64.
- Nesi, H., & Gardner, S. (2006). Variation in disciplinary culture: University tutors' views on assessed writing tasks. *British studies in applied linguistics*, 21, 99.
- Neumann, R. (2001). Disciplinary differences and university teaching. *Studies in higher education*, 26(2), 135-146.
- Neumann, R., Parry, S., & Becher, T. (2002). Teaching and learning in their disciplinary contexts: A conceptual analysis. *Studies in higher education*, 27(4), 405-417.
- Niu, X., & Hemminger, B. M. (2012). A study of factors that affect the information-seeking behavior of academic scientists. *Journal of the American Society for Information Science and Technology*, 63(2), 336-353.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods*, 16(1), 1609406917733847.
- NSB. (2012). *Science and Engineering Indicators Digest*. <https://www.nsf.gov/statistics/>
- NSB. (2018). *Science and Engineering Indicators* <https://www.nsf.gov/statistics/2018/nsb20181/>
- NSB. (2019). *Publications Output: U.S. Trends and International Comparisons*. <https://nces.nsf.gov/pubs>
- NSB. (2022). *Academic Research and Development*. <https://nces.nsf.gov/pubs>
- Nygaard, L. P. (2019). The institutional context of ‘linguistic injustice’: Norwegian social scientists and situated multilingualism. *Publications*, 7(1), 10.
- O’Neil, D. (2018). English as the lingua franca of international publishing. *World Englishes*, 37(2), 146-165.
- Oakes, L. (2005). From internationalisation to globalisation: Language and the nationalist revival in Sweden. *Language problems and language planning*, 29(2), 151-176.
- Onsman, A. (2012). Distributing the future evenly: English as the lingua franca in the Saudi Arabian higher education sector. *Higher Education Policy*, 25(4), 477-491.
- Onwuegbuzie, A. J., & Frels, R. (2016). Seven steps to a comprehensive literature review: A multimodal and cultural approach.
- Parry, S. (1998). Disciplinary discourse in doctoral theses. *Higher Education*, 36(3), 273-299.
- Penrose, A. M., & Geisler, C. (1994). Reading and writing without authority. *College Composition and Communication*, 45(4), 505-520.

- Pérez-Llantada, C. (2013). *Scientific Discourse and the Rhetoric of Globalization: The Impact of Culture and Language* (1 ed.). London: Bloomsbury Publishing Plc.
- Pérez-Llantada, C. (2021). *Research Genres Across Languages: Multilingual Communication Online*. Cambridge University Press.
- Petrić, B. (2014). English-medium journals in Serbia: Editors' perspectives. In *The semiperiphery of academic writing* (pp. 189-209). Palgrave Macmillan, London.
- Phillipson, R. (1992). *Linguistic imperialism*. Oxford University Press.
- Piro, F. N., Aksnes, D. W., & Rørstad, K. (2013). A macro analysis of productivity differences across fields: Challenges in the measurement of scientific publishing. *Journal of the American Society for Information Science and Technology*, 64(2), 307-320.
- Polio, C., & Yoon, H. J. (2018). The reliability and validity of automated tools for examining variation in syntactic complexity across genres. *International Journal of Applied Linguistics*, 28(1), 165-188.
- Politzer-Ahles, S., Holliday, J. J., Girolamo, T., Spychalska, M., & Berkson, K. H. (2016, Dec). Is linguistic injustice a myth? A response to Hyland (2016). *J Second Lang Writ*, 34, 3-8. <https://doi.org/10.1016/j.jslw.2016.09.003>
- Pring, R. (2004). *The philosophy of education*. Bloomsbury Publishing.
- Pronskikh, V. (2018). Linguistic privilege and justice: What can we learn from STEM? *Philosophical Papers*, 47(1), 71-92.
- Purves, A. C. (1986) Rhetorical communities: the international student and basic writing. *Journal of Basic Writing* (5). 38–51.
- PWC. (2017). *Beyond bricks: Building a high impact research ecosystem in the GCC*. <https://www.strategyand.pwc.com/m1/en/reports/2018/beyond-bricks.html>
- Rau, G. (2021). Development of component analysis to support a research-based curriculum for writing engineering research articles. *English for Specific Purposes*, 62, 46-57.
- Rezaei, S., & Seyri, H. (2019). Iranian doctoral students' perceptions of publication in English. *Journal of Applied Research in Higher Education*.
- Romani, V. (2009). The politics of higher education in the Middle East: Problems and prospects. *Middle East Brief*, 36(1), 1-8.
- Ruvalcaba, D. M. (2020). The Semiperipheral States in the Twenty-first Century: Measuring the Structural Position of Regional Powers and Secondary Regional States. *International Studies*, 57(1), 20-50.
- Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field methods*, 15(1), 85-109.
- Sadeghi, K., & Alinasab, M. (2020). Academic conflict in Applied Linguistics research article discussions: The case of native and non-native writers. *English for Specific Purposes*, 59, 17-28.
- Said, E. W. (1979). *Orientalism* (25th anniversary edition. ed.). Penguin
- Salager-Meyer, F. (2008). Scientific publishing in developing countries: Challenges for the future. *Journal of English for Academic Purposes*, 7(2), 121-132.
- Salager-Zeyer, F. (2015). Peripheral scholarly journals: From locality to globality. *Ibérica, Revista de la Asociación Europea de Lenguas para Fines Específicos*(30), 15-36.
- Saldana, J. (2013). *The coding manual for qualitative researchers* (2nd ed. ed.). SAGE.
- Samraj, B. (2005). An exploration of a genre set: Research article abstracts and introductions in two disciplines. *English for Specific Purposes*, 24(2), 141-156.
- Sandelowski, M. (2006, 2006/01/01/). "Meta-Jeopardy": The crisis of representation in qualitative metasynthesis. *Nursing outlook*, 54(1), 10-16. <https://doi.org/https://doi.org/10.1016/j.outlook.2005.05.004>
- Scheurich, J. J., & Young, M. D. (1997). Coloring epistemologies: Are our research epistemologies racially biased? *Educational researcher*, 26(4), 4-16.
- Selinker, L. (1981). *English for Academic and Technical Purposes*. *Studies in Honor of Louis Trimble*. ERIC.
- Shanahan, C., Shanahan, T., & Misischia, C. (2011). Analysis of Expert Readers in Three Disciplines: History, Mathematics, and Chemistry. *Journal of literacy research*, 43(4), 393-429. <https://doi.org/10.1177/1086296X11424071>
- Shaw, P., & Vassileva, I. (2009). Co-evolving academic rhetoric across culture; Britain, Bulgaria, Denmark, Germany in the 20th century. *Journal of Pragmatics*, 41(2), 290-305.
- Shchemeleva, I. (2021). "There's No Discrimination, These Are Just the Rules of the Game": Russian Scholars' Perception of the Research Writing and Publication Process in English. *Publications*, 9(1), 8.

- Shehata, A. M. k., & Eldakar, M. A. M. (2018). Publishing research in the international context: An analysis of Egyptian social sciences scholars' academic writing behaviour. *The Electronic Library*, 36(5), 910-924.
- Sheldon, E. (2011). Rhetorical differences in RA introductions written by English L1 and L2 and Castilian Spanish L1 writers. *Journal of English for Academic Purposes*, 10(4), 238-251. <https://doi.org/https://doi.org/10.1016/j.jeap.2011.08.004>
- Sheldon, E. (2018). Dialogic spaces of knowledge construction in research article Conclusion sections written by English L1, English L2 and Spanish L1 writers. *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos (AELFE)*(35), 13-40.
- Shin, J. C., Huang, J. W., Lee, J.-k., & An, Y. (2021). Localization of social science research in selected academic disciplines in South Korea. *Current Sociology*, 00113921211048528.
- Siemund, P., Al-Issa, A., & Leimgruber, J. R. E. (2021). Multilingualism and the role of English in the United Arab Emirates. *World Englishes*, 40(2), 191-204. <https://doi.org/10.1111/weng.12507>
- Smart, J. C., & Ethington, C. A. (1995). Disciplinary and Institutional Differences in Undergraduate Education Goals. *New Directions for Teaching and Learning*, 64, 49-57.
- Smirnova, N. V., Lillis, T., & Hultgren, A. K. (2021). English and/or Russian medium publications? A case study exploring academic research writing in contemporary Russian academia. *Journal of English for Academic Purposes*, 53, 101015.
- Soler, J. (2021). Linguistic injustice in academic publishing in English: Limitations and ways forward in the debate. *Journal of English for Research Publication Purposes*, 2(2), 160-171.
- Sperrazza, L. (2019). *The Narrative Identity Construction of Three Multilingual Students at an American-Style University in the UAE: An Examination of Motivational, Ideological, Attitudinal, and Sociocultural Factors that Impact Writer Identity in Academic English*
- Spivak, G. C., & Morris, R. C. (2010). *Can the Subaltern Speak? reflections on the history of an idea*. Columbia University Press.
- St. John, M. (1987). Writing processes of Spanish scientists publishing in English. *English for Specific Purposes*, 6(2), 113-120.
- STM. (2021). STM Global Brief 2021: Economics & Market Size. https://www.stm-assoc.org/global_report2021_translations/
- Sullivan, D. L. (1996). Displaying disciplinarity. *Written communication*, 13(2), 221-250.
- Swales, J. (1984). Research into the structure of introductions to journal articles and its application to the teaching of academic writing. *Common ground: Shared interests in ESP and communication studies*, 77-86.
- Swales, J. (1990). *Genre analysis: English in academic and research settings*. Cambridge University Press.
- Swales, J., & Najjar, H. (1987). The writing of research article introductions. *Written communication*, 4(2), 175-191.
- Swales, J. M. (2004). *Research genres: Explorations and applications*. Cambridge University Press.
- Tardy, C. M. (2005). "It's like a story": Rhetorical knowledge development in advanced academic literacy. *Journal of English for Academic Purposes*, 4(4), 325-338. <https://doi.org/10.1016/j.jeap.2005.07.005>
- Taşkın, Z., Doğan, G., Kulezycki, E., & Zuccala, A. A. (June 18th, 2020) Long read | Science needs to inform the public. That can't be done solely in English. *LSE Blogs*. <https://blogs.lse.ac.uk/covid19/2020/06/18/long-read-science-needs-to-inform-the-public-that-cant-be-done-solely-in-english/>
- Teddle, C., & Tashakkori, A. (2009). *Foundations of mixed methods research : integrating quantitative and qualitative approaches in the social and behavioral sciences*. SAGE.
- Tenopir, C., & King, D. W. (2004). *Communication patterns of engineers*. John Wiley & Sons.
- Tenopir, C., King, D. W., & Campbell, R. (2000). Towards electronic journals: realities for scientists, librarians & publishers. *Journal of Scholarly Publishing*, 31(4), 214.
- Tenopir, C., King, D. W., Christian, L., & Volentine, R. (2015). Scholarly article seeking, reading, and use: a continuing evolution from print to electronic in the sciences and social sciences. *Learned Publishing*, 28(2), 93-105.
- Tenopir, C., King, D. W., Spencer, J., & Wu, L. (2009). Variations in article seeking and reading patterns of academics: What makes a difference? *Library & Information Science Research*, 31(3), 139-148.
- Thomason, S. G., & Elgibali, A. (1986). Before the lingua franca: Pidginized Arabic in the eleventh century AD. *Lingua*, 68(4), 317-349.
- Turner, E., & Bitchener, J. (2008). An approach to teaching the writing of literature reviews [Online].

- Tusting, K., & Barton, D. (2016). Writing disciplines: producing disciplinary knowledge in the context of contemporary higher education. *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos (AELFE)*(32), 15-34.
- United Nations (UN). (n.d.). *Official Languages*. Retrieved Jan 02, 2022 from <https://www.un.org/en/our-work/official-languages#:~:text=There%20are%20six%20official%20languages,%2C%20French%2C%20Russian%20and%20Spanish.>
- UNESCO. (2015). *UNESCO Science Report: Towards 2030*. United Nations Educational. <http://uis.unesco.org/sites/default/files/documents/unesco-science-report-towards-2030-part1.pdf>
- UNESCO. (2016). *World Social Science Report*. <https://en.unesco.org/wssr2016>
- UNESCO. (2019). *Migration, Displacement & Education: Building Bridges, Not Walls*. <https://en.unesco.org/gem-report/report/2019/migration>
- UNESCO. (2021). *UNESCO Science Report: The race against time for smarter development*. <https://www.unesco.org/reports/science/2021/en>
- Universities, Q. T. (2020). *World University Rankings 2020*. Retrieved Jan 02,2022 from <https://www.topuniversities.com/university-rankings/world-university-rankings/2020>
- Uysal, H. H. (2014). Turkish academic culture in transition: Centre-based state policies and semiperipheral practices of research, publishing and promotion. In *The semiperiphery of academic writing* (pp. 165-188). Springer.
- UX Collective (n.d). Reterived from <https://uxdesign.cc/aristotles-rhetoric-way-of-designing-c814ba6196fd>
- Van Dijk, T. A. (1993). Principles of critical discourse analysis. *Discourse & society*, 4(2), 249-283.
- Vora, N. (2013). *Impossible citizens : Dubai's Indian diaspora*. Duke University Press.
- Wallerstein, I. (2004). World systems theory. *End of Capitalism Garner & Hancock*, 611-616.
- Wang, W., & Yang, C. (2015). Claiming centrality as promotion in applied linguistics research article introductions. *Journal of English for Academic Purposes*, 20, 162-175.
- Warburton, J., & Macauley, P. (2014). Wrangling the literature: Quietly contributing to HDR completions. *Australian Academic & Research Libraries*, 45(3), 159-175.
- Weber, A. S. (2011). Politics of English in the Arabian Gulf. *FLTAL 2011 proceedings*, 60-66.
- Wignell, P. (1997), 'Making the Abstract Technical: on the evolution of the discourse of social science'. PhD thesis, Department of Linguistics, University of Sydney.
- Wilhelm, W. J., & Kaunelis, D. (2005). Literature Reviews: Analysis, Planning, and Query Techniques. *Delta Pi Epsilon Journal*, 47(2).
- Wineburg, S. S. (1991). On the reading of historical texts: Notes on the breach between school and academy. *American educational research journal*, 28(3), 495-519.
- Weingart, P. (2003). Growth, differentiation, expansion and change of identity – The future of science. In B. Joerges & H. Nowotny (Eds.), *Social studies of science and technology: Looking back, ahead* (pp. 183-200). Kluwer Academic Publishers.
- Wolfswinkel, J. F., Furtmueller, E., & Wilderom, C. P. (2013). Using grounded theory as a method for rigorously reviewing literature. *European journal of information systems*, 22(1), 45-55.
- Woolgar, S., & Latour, B. (1986). *Laboratory life: the construction of scientific facts*. Princeton University Press.
- World Bank, The. (2021). *Advancing Arabic Language Teaching and Learning— A Path to Reducing Learning Poverty in the Middle East and North Africa*. <https://www.worldbank.org/en/region/mena/publication/advancing-arabic-language-teaching-and-learning-path-to-reducing-learning-poverty-in-the-middle-east-and-north-africa>
- Xu, X. (2020). China 'goes out' in a centre–periphery world: Incentivizing international publications in the humanities and social sciences. *Higher Education*, 80(1), 157-172.
- Yakhontova, T. (2006). Cultural and disciplinary variation in academic discourse: The issue of influencing factors. *Journal of English for academic purposes*, 5(2), 153-167.
- Yotimart, D., Aziz, A., & Hashima, N. (2017). Authorial identity and linguistic features of native English and Thai writers in research articles. *Pertanika Journal of Social Sciences and Humanities*, 25(3), 1319-1334.

Appendix One: Interview Guide

1. **Can you tell me about yourself?**
 - a. Native language
 - b. Discipline
 - c. Studying abroad in English
 - d. Writing and publishing in English
 - e. Preferred language of writing and publishing
2. **Can you tell me how you selected the topic for your recent journal article?**

Did you choose it on your own? Or was it your collaborator?
Topic choice considerations: *niche*
Overall research interest
Overall research drivers
Overall research environment
3. **What was your experience reading for this literature review section?**
 - a. Did you read beforehand? How much?
 - b. Where did you locate the sources?
 - c. Was the literature review somehow predetermined in your mind or it emerged as you were reading? Were you stumbling upon readings? Or you knew where to look and what to look for?
 - d. When did you start thinking about the literature's review argument/main point? Before reading? Or after reading?
 - e. Do you have special reading techniques? (journal's referencing and editors etc).
 - f. How did you decide to include these authors?
 - g. Did you exclude authors? Why? Or why not?
 - h. When did you stop reading? When did you start drafting? Why? How?
4. **Can you describe in detail how you prepared to draft this literature review section?**
 - a. When did you start drafting it?
 - b. Did you draft it after/before the data collection?
 - c. How long did it take you to draft it?
 - d. If the participant recalled multiple drafts, how did the drafts change?
5. **Can you tell me more how you wrote/structured this literature review section?**
 - a. Summarizing; paraphrasing; synthesizing sources
 - b. How did you manage all of the sources in the literature review? Can you show me an example that you like from your own literature review? Why?
 - c. Can you show me an example that you want to revise from your own literature review? Why?
6. **How did you feel when you finished the literature review section?**
 - a. Contribution
 - b. Dialogue
 - c. Authority
7. **What is the role of a literature review section in a journal article in your field? Where did you learn about that role?**
 - a. Training: grad school; PhD writing; journal publishing
8. **Can you describe the disciplinary and publishing conventions for literature review writing in your field as shared by the experts in your field and/or journal editors?**
 - a. Disciplinary conventions
 - b. Publishing expectations
 - c. Syntax considerations: length; variety of sentences; type of sentences
 - d. Stylistic considerations: argument; reporting; synthesizing
9. **How do you teach literature review writing for your students?**
10. **If you are an editor, reviewer, what are your exceptions for the literature review section?**
11. **What advice do you give writers who writing the literature review section in a journal article?**

Appendix Two: Themes Development

Theme 1: LR search protocol and its sub-categories used in the coding process

Subcategories	Final theme
LR search protocol	
(-) Using different terminologies to identify literature	LR search protocol
Checking the cited by feature	

Theme 2: LR Reading and its sub-categories used in the coding process

Codes	Subcategories	Final theme
LR Reading		
Stopping to read for LR	LR Reading Strategies	
Number of read articles		
Laser focused LR reading		
LR iterative reading		
Reading strategy		
Reading outside the discipline		
Familiarity with the literature during the search process		
Not being familiar with the literature	LR Reading practices	
Becoming familiar with the literature		
Reading papers that cite key papers		LR reading
LR Reading: what to read for?		
What to look for in LR? Novelty		
What to look for in LR? Methods		
Reading LR with RQ in mind		
What to read for? Being part of the scientific community		
What to read for? Support thesis, argument and claims		
What to look for in LR? Counterarguments	LR Reading Purposes	
What to look for in LR? defining the research problem		
What to look for in LR? Problem solving		

Theme 3: LR Writing and its sub-categories used in the coding process

Codes	Subcategories	Final theme
Inclusion criteria for LR writing: RELEVANCE		
LR writing (Inclusion/Exclusion)	LR writing process	
Up-to-date literature as an inclusion criteria		
LR Writing process		
LR reading and writing		
LR writing		
Identifying the research gap:(+)	Identifying the gap	LR writing
Do the needed research when there is a gap		
Synthesizing the literature		
LR writing strategies		
LR bad writing habits: Summary		
Coherence in literature review writing		

Theme 4: ERPP challenges and its subcategories

Codes	Subcategories	Final theme
(-): Research environment		
Research resources (literature: articles and books)		Final theme
Regional research		
American content vs ME content: Reaction		
Framing the local as global		ERPP challenges
Global problems		
STEM disciplines: Local vs Global		
Writing with western concepts in mind because the fields are western-centric		
Local issues		

Appendix Three: Ethical Approval Forms

CONSENT FORM



Project Title: English for Research Publishing Purposes (ERPP) Writing Approaches amongst L1 and L2 Researchers in Social Sciences and STEM Disciplines

Name of Researchers: Anoud Abusalim

Email: a.abusalim@lancaster.ac.uk

Please tick each box

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily	<input type="checkbox"/>
2. I understand that my participation is voluntary and that I am free to withdraw at any time during my participation in this study and within 4 weeks after I took part in the study, without giving any reason. If I withdraw within 4 weeks of taking part in the study my data will be removed.	<input type="checkbox"/>
3. I understand that any information given by me may be used in future reports, academic articles, publications or presentations by the researcher, but my personal information will not be included and I will not be identifiable.	<input type="checkbox"/>
4. I understand that my name/my organisation's name will not appear in any reports, articles or presentation without my consent.	<input type="checkbox"/>
5. I understand that any interviews will be audio-recorded and transcribed and that data will be protected on encrypted devices and kept secure.	<input type="checkbox"/>
6. I understand that data will be kept according to University guidelines for a minimum of 10 years after the end of the study.	<input type="checkbox"/>
7. I agree to take part in the above study.	<input type="checkbox"/>

Name of Participant

Date

Signature

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Signature of Researcher /person taking the consent _____ Date _____ Day/month/year

One copy of this form will be given to the participant and the original kept in the files of the researcher at Lancaster University

Institutional Review Board [IRB]
Informed Consent Form for Participation in Research Study

Project Title: Systematic Investigation of Disciplinary Writing Practices for English for Research Publication Purposes (ERPP) across STEM and Social Sciences (SS) Researchers and Students

Principal Investigator or faculty sponsor of student research:

Anoud Abusalim

Purpose: You are invited to participate in a research study on English for Research Publishing Purposes (ERPP) practices. The purpose of this study is to understand the different disciplinary practices in STEM and Social Sciences Writing. Another purpose of the study is to examine the disciplinary writing practices of L1 and L2 researchers.

Procedures: If you decide to participate, you will be asked to do one of the following things:

- 1- **Faculty Participants:** participate in an audio-recorded one-to-one interviews to answer questions about disciplinary writing conventions in your field and ERPP practices.

Your participation will take around 60 minutes.

Risks: There are no foreseeable risks associated with this study.

Benefits: There are no direct benefits to you for participating in this study.

Your Rights: Your participation is voluntary, and you have the right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. You have the right to refuse to answer particular questions. Your individual privacy will be maintained in all published and written data resulting from this study. If you have questions or concerns about this study and would like to consult someone other than the principal investigator, you may contact the Office of Research:

Statement of Consent: My signature below indicates that I have read the above information and that my questions have been answered. I understand that even after signing this form I may withdraw from the study at any time. I consent to participate in the study.

By checking this box I understand that my interview/focus group shall be audio recorded and those recordings transcribed.

Printed Name: _____ Signature: _____ Date: _____

The extra copy of this form should be retained by the participant.

Revised 7th November 2017