



**THE USE OF REPORTING VERBS IN  
ACADEMIC WRITING OF DIFFERENT  
DISCIPLINES**

**2021  
MASTER THESIS  
Department of English Language and Literature**

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**THE USE OF REPORTING VERBS IN ACADEMIC WRITING OF  
DIFFERENT DISCIPLINES**

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**Nov. 2021**

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## THESIS APPROVAL PAGE

I certify that in my opinion the thesis submitted by Mohannad Khider ABBOOD titled “THE USE OF REPORTING VERBS IN ACADEMIC WRITING OF DIFFERENT DISCIPLINES” ” is fully adequate in scope and in quality as a thesis for the degree of Master of Arts.

Assist. Prof. Dr. Nayef JOMAA .....

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This thesis is accepted by the examining committee with a unanimous vote in the Department of English Language and literature as a Master thesis. On Nov 22, 2021

Examining Committee Members (Institutions)

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The degree of Master of Arts by the thesis submitted is approved by the Administrative Board of the Institute of Graduate Programs, Karabuk University.

Prof. Dr. Hasan SOLMAZ .....

Director of the Institute of Graduate Programs



## **Declaration**

I thus certify that the content of this thesis is entirely original work of mine, and that all sources consulted and data analyzed were done so in compliance with the institute's established academic standards and ethical guidelines. There are no errors in this thesis's references to other sources; they have been mentioned and referenced verbatim.

No matter what happens, I'll take full responsibility for anything that goes against what I stated above.

**Name Surname: Mohammed Khider ABBOOD**

**Imza:**

## **Forward**

First and foremost, we express appreciation to Allah, the Almighty, upon whom we rely for nourishment and direction. Second, without God's assistance, I would not have completed my task without his patience, encouragement, and endless hours spent reading and thinking about my work. I'd like to express my heartfelt appreciation to my supervisor, Assoc. Prof. Dr. Nayef Jomaa, for his invaluable mentoring and constructive criticism. I'd also like to express my gratitude to my classmates, brothers, and sisters for their kind support and encouragement throughout these years while I worked toward completing this project.

## **Dedication**

This work is dedicated to my parents, who have never failed to provide us with financial and moral support, forgiving all our requirements while we created our system, and taught us that even the most monumental endeavor can be finished if done in small steps. This dissertation has been dedicated to my supervisor's assist. Prof. Dr. Nayef Jomaa, I could not have completed this project without his continued support and counsel. I dedicate this Capstone project to all of my family, my wife, brothers, sisters, relatives, and best friends who helped me and encouraged me.

## **Abstract**

Reporting verbs (RVs) are a central feature of scholarly writing that allows authors to express themselves. They are used to attribute materials to another source and enable authors to communicate their stance. However, few studies have been conducted using the functional theory in analyzing the reporting verbs. Besides, despite the increasing studies on reporting verbs, limited studies have focused on reporting verbs among Turkish authors. Therefore, this study investigates reporting verbs in Turkish articles using introduction and literature review sections of 80 articles from soft and hard domains. A qualitative approach has been utilized, selecting eight different journals. Hand analysis has been used in analyzing the data. The findings revealed that all the six process types of (RVs) identified by Halliday (1985) are used in the research articles examined, in both disciplines, hard and soft. Relational verbs record the highest occurrence in the hard domain, followed by verbal RVs, which occupy the second rank. On the other hand, in the soft domain, frequencies of verbal verbs occupied the first rank, followed by mental verbs. All students and postgraduates benefit in the academic writing field because they use appropriate reporting verbs and avoid using them randomly.

**Keywords:** Reporting verbs, soft domain, hard domain, Turkish authors, Functional Grammar, Academic Writing

## ÖZ

Raporlama fiilleri (RV'ler), yazarların kendilerini ifade etmelerini sağlayan bilimsel yazının merkezi bir özelliğidir. Materyalleri başka bir kaynağa atfeder ve onların kayıtlı tüm çalışma işlemlerini ifade etmelerini sağlar. Bununla birlikte, raporlama fiillerinin analizinde işlevsel teori üzerine az sayıda çalışma yapılmıştır. Bildirme fiilleri üzerine yapılan çalışmaların artmasına rağmen Türk yazarlar arasında bildirim fiilleri üzerine sınırlı sayıda çalışma yapılmıştır. Bu nedenle, bu çalışma, Türk yazarlar tarafından yapılan 80 makalenin yumuşak ve sert alanındaki giriş ve literatür taraması bölümlerinde bildirme fiillerinin etkisini araştırmaktadır. Sekiz farklı dergi seçilerek nitel bir yaklaşım kullanıldı. Verilerin analizinde el analizi kullanılmıştır. Bulgular, Halliday tarafından tanımlanan RV'lerin altı süreç tipinin tamamının, incelenen araştırma makalelerinde hem sert hem de yumuşak disiplinlerde kullanıldığını ortaya koydu. İlişkisel fiiller, sabit alanda en yüksek oluşumu kaydetti, ardından ikinci sırayı işgal eden sözlü RV'ler geldi. Öte yandan, yumuşak alanda, sözlü fiillerin sıklığı ilk sırada yer aldı ve bunu zihinsel fiiller izledi. Akademik yazma alanında tüm öğrenciler ve lisansüstü öğrenciler yararlanacak, uygun bildirme fiillerini kullanacaklar ve bu fiilleri rastgele kullanmaktan kaçınacaklar, böylece yazarın bildirim fiilleri kategorileri arasında ayırım yapma fikri olacaktır. Bu çalışmanın sonuçları, amacı Türk yazarların araştırma makalesi yazma kapasitesini artırmak ve araştırma makalelerinde her raporlama fiilinin işlevleriyle bağlantılı olarak kullanımını vurgulamak olan öğretmenler ve akademik yazarlar için faydalı olacaktır.

**Anahtar Kelimeler:** Bildirme fiilleri, yumuşak etki alanı, sabit etki alanı, Türk yazarlar, İşlevsel Dilbilgisi, Akademik Yazma

## **ARCHIVE RECORD INFORMATION**

<b>Title of the Thesis</b>	<b>The Use of Reporting Verbs in Academic Writing of Different Disciplines</b>
<b>Author of the Thesis</b>	<b>Mohannad khidher ABBOOD</b>
<b>Supervisor of the Thesis</b>	<b>Assistant Professor Dr. Nayef Jomaa</b>
<b>Status of the Thesis</b>	<b>Master's Degree</b>
<b>Date of the Thesis</b>	<b>2021</b>
<b>Field of the Thesis</b>	<b>Applied Linguistics</b>
<b>Place of the Thesis</b>	<b>KBU/LEE</b>
<b>Total Page Number</b>	<b>95</b>
<b>Keywords</b>	<b>Reporting verbs, soft domain, hard domain, Turkish authors, Functional Grammar, Academic Writing</b>

## ARŞİV KAYIT BİLGİLERİ

<b>Tezin Adı</b>	<b>Farklı Disiplinlerin Akademik Yazılarında Bildirme Fiillerinin Kullanımı</b>
<b>Tezin Yazarı</b>	<b>Mohannad Khidher ABBOOD</b>
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<b>Tezin Derecesi</b>	<b>Yüksek Lisans</b>
<b>Tezin Tarihi</b>	<b>2021</b>
<b>Tezin Alanı</b>	<b>Uygulamalı Dilbilim</b>
<b>Tezin Yeri</b>	<b>KBU / LEE</b>
<b>Tezin Sayfa Sayısı</b>	<b>95</b>
<b>Anahtar Kelimeler</b>	<b>Bildirme fiilleri, yumuşak etki alanı, sabit etki alanı, Türk yazarlar, İşlevsel Dilbilgisi, Akademik Yazma</b>

## ABBREVIATIONS

R.V.S.	Reporting verbs
K.B.U.	Karabuk
S.F.L.	Systemic functional linguistics
EFL.	English foreign language
C.D.A.	Critical discourse analysis.
P.H.D.	Doctor of Philosophy
E.S.P.	English for specific purposes.
E.S.L.	English Ass a second language.
R.A.s.	Research Articles
L.R.	Literature review.
A.L.	Applied Linguistics.
M.E.	Medicine.
P.N.	Page number.
P.	Participant.
E.C.	Economic.
E.L.L.	English Language and literature.
LTE.	Language teaching and education.
N.U.	Nursing.
C.E.	Chemical engineer.
Bio.	Biology.
M.J.	Medical journal.
I.M.J.	International Medical Journal.



## **Subject of The Research**

The main topic of the current study is the use of reporting verbs in academic writing. Reporting verbs are used to convey information from other sources. Different disciplines have been used, demonstrating the frequency and percentage of reporting verbs in research articles published in scientific journals in Turkey.

The writer used eight disciplines; these are applied linguistics, economics, language teaching, education research, English language and literature, medicine, chemical engineering, biology, and nursing.

## **Purpose And Importance Of The Research**

Reporting verbs transmit and use speech, either directly or indirectly, and play an essential role in academic writing. The researcher must use appropriate reporting verbs when quoting or paraphrasing in each citation, rather than using reporting verbs randomly. Studying other verbs is required when writing research papers, master's dissertations, and Ph.D. theses. As a result, express ideas of others in style and demonstrate personality position by selecting appropriate reporting verbs.

## **Method of The Research**

The present study applied the theory of systemic functional linguistics by Halliday (1985) to analyze qualitatively several research articles in Turkish Degirpark journals.

## **Hypothesis Of The Research / Research problem**

The current study used Systemic Functional Linguistics (SFL) (Halliday,1985). This conceptual framework is used, with a primary focus on evaluating reporting verbs in two sections: introduction and literature review of eighty articles. According to Halliday (1985), social philosophy is Systemic Functional Linguistics of language usage, which produces three types of definitions simultaneously, namely ideational, interpersonal, and textual reports.

One of the most important components of citation in academic writing is the use of reporting verbs., while students from non-native backgrounds frequently struggle. They always utilize them incorrectly or randomly.

Although several studies dealings with EFL postgraduates, limited studies have investigated the genre of research articles written by Turkish authors in eight different disciplines.

### **Scope And Limitations / Difficulties scope And Limitations**

The present study focuses primarily on investigating reporting verbs using a qualitative method based on Halliday's theory. The participants of the present study are Turkish authors. Data are published in the English language by Dergipark publications. The study is carried out over twenty months, beginning from January 2020 and ending in September 2021. The difficulty lies in numerous verbs, each of which has a different meaning; the writer should be familiar with using appropriate reporting verbs.

## CHAPTER ONE

### 1.1 Introduction

Reporting verbs are verbs in a class that conveys and uses speech, either directly or in reported words. Reporting verbs can be used in direct and infinite construction with a blunt object. Because there are so many reporting verbs, it might be difficult to know which one to choose.

Reporting verbs vary in their strength; for example, the verb 'suggesting' is different from the verb 'discussing'. The two verbs are very distinctive pictures of how the author perceives and studies their results. The reporting verbs allow the author to demonstrate his responsibility for making the statement (Charles, 2006). Bloch (2010) points out that it is usually hard for non-native English speakers to select appropriate reporting verbs. Reporting words generally come with citation and RVs as one technique of showing trustworthiness (Loan & Pramoolsook, 2015).

In the production of academic writing, a citation is a vital tool. It has the original material; the pattern of written certainty demands reporting verbs to enhance the assertion in a report in academic writing. Writers use reporting verbs to express their views with people (Hyland, 2004). The educational system used in Turkey has witnessed significant improvement, especially in the last decade.

The number of students coming from outside is still increasing; this interprets the Turkish government supporting the educational system and using high techniques in Universities. Universities in Turkey used the Turkish language; on the other hand, some departments use the English language for native and non-native students. The rank of universities in Turkey is getting higher day by day. According to the policy of some universities, authors sometimes publish in Turkish or in the English language. Still, if they publish in English, the author is obliged to translate the abstract section to the Turkish language. On the other hand, regarding the current study, samplings will be eighty articles published in Degirpark Turkish.

Reporting verbs are essential verbs since they give the author the power to convey another person's idea in the author's style. Moreover, demonstrate their perfect standing in the direction of information by confessing or denying claims. A reporting

verb is simply a verb belonging to a class of verbs that convey action. Reporting verbs can be used with an infinitive construction and with a blunt object. It is also crucial to respond to others' research and report their results in the academic genre. To be able to do so, verbs for reporting have to be used. The problem lies in writing verbs, as there are different verbs, each with several verbs. They have a distinct or somewhat distinct meaning. This issue depends on using the correct terms; while, the writer's stance that has been examined has been rightly interpreted. In words of their power, reporting verbs differ; for instance, 'to say' is not as strong as 'to argue,' so verb say is a weak and non-academic verb. Both verbs reflect very different pictures in the same way (Berhail & Chaira, 2017).

## **1.2 Statement of problem**

Writing in academic genres is not as the case as in non-academic genres due to its high formality. The category of scientific journal articles is one part of literary written correspondence that has gained much attention recently (Hawes & Thomas 1997). Academic writing needs the citation of knowledge and current rationales from the sources (Swales, 1990; Thompson, 2002; Thompson & Tribble, 2001).

One of the most critical facets of citation in scholarly writing is reporting verbs when quoting and paraphrasing other literature. However, non-native students often struggle to do so. They always misuse them or use them randomly.

Numerous studies on EFL students' academic writing have been conducted. In contrast, few studies have explored the research articles written by Turkish writers in the hard and soft domains. Moreover, the studies that have investigated reporting verbs have shown similarities and differences in findings. Manan and Noor's (2014) findings reveal that research acts get high frequency than cognition acts and discourse acts. Jomaa (2019) reports that the material category recorded high frequency compared with other classes of verbs. On the other hand, Agbaglo (2017) points out that findings show that the discourse act category is dominant, followed by two different types: research and cognitive categories.

Although several studies have been carried out on identifying reporting verbs, limited studies have used a qualitative approach to explore reporting verbs across different disciplines. The current study investigates reporting verbs by identifying their usage in Turkish authors' hard and soft articles. The researcher makes a comparative

study to prepare reporting verbs and show differences in using them in the hard and soft domains.

### **1.3 Research Questions**

The purpose of this study is to provide an answer to the following questions.

1. What are the types of reporting verbs used in the research articles of the soft domain?
2. What are the types of reporting verbs used in the research articles of the hard domain?
3. What are the similarities and differences in Turkish authors' research articles of two domains, namely, hard and soft?

### **1.4 Research Objectives**

1. To identify the types of reporting verbs used in the research articles of the soft domain.
2. To explore the types of reporting verbs used in the research articles of the soft domain.
3. To analyze the similarities and differences in the research articles of two different domains, namely hard and soft, by Turkish authors.

### **1.5 Domain of the study**

The title of the study is the use of reporting verbs in academic writing of different disciplines. The researcher in the current study mainly emphasizes the exploring of reporting verbs employing a qualitative approach under Halliday's theory. The sampling of the present study is eighty articles that have focused on the use of reporting verbs in academic writing of different disciplines published in the English language in Dergipark Journals. The period of conducting the study lasted for twenty months extending from January 2020 to November 2021.

### **1.6 Significance of The Study**

Although several studies have addressed academic writing, the present study is considered one of the limited studies focusing on the academic writing of Turkish

authors. As a result, the findings will contribute to the body of knowledge. and increase the understanding of exploring reporting verbs.

Due to the importance of academic writing for postgraduate studies, this study could help the instructors and postgraduate students give further support to the weak points and enhance the academic performance of EFL postgraduates in their L2 academic writing. The current study's findings will contribute to the body of knowledge by expanding our knowledge and understanding of the use of appropriate reporting verbs.

### **1.7 Definition of terms**

Reporting verbs are verbs in a class that convey and use speech, either directly or in reported words (Li, 2014). The genre is defined as literary works, like poems, novels, stories, prose, and a novella (Moessner, 2001). Bruce (2008) points out that The term "genre" does not refer exclusively to literary works but also to newspapers, letters, films, drama, and academic texts.

### **1.8 Organization of The Study / Thesis**

Chapter one presents the problem statement, research questions, research objectives, significance of the study, domain of the study, organization of the study. Chapter two introduce. Introduction, Related Theories, Related Taxonomies, Related Studies, Conceptual Framework, and summary of chapter two. Chapter three includes Introduction Research Design, Population (Sampling), Data Collection Method Data Analysis Methods (Pilot Study), Trustworthiness (validity, reliability, credibility), and Summary of Chapter Three Chapter four summarizes the findings from Research Question One, the findings from Research Question Two, and the findings from Research Question Three. Finally, chapter five discusses the Conclusion, the Discussion, the Implications of the Study, the Study's Limitations, and Suggestions for Future Research.

## **1.9 Summary of Chapter One**

The chapter consists of an introduction, problem statement, research objectives, research question, the domain of the study, the significance of the study, definition of terms, organization of the study, and summary of the chapter.

## CHAPTER TWO: REVIEW OF LITERATURE

### 2.1 Introduction

This chapter contains related theories, related studies, and related taxonomies. The ideas related to the current study are contextual approaches, critical approaches, and a textual approach (Halliday & Matthiessen, 1985; Swales, 2014; Thompson & Yiyun, 1991).

Reviews of the most related studies on the usage of reporting verbs in academic writing are included. Finally, chapter two presents a summary of the study.

### 2.2 Related Theories

Academic discourse analyses and understanding supports by a particular theory or a concept (Jomaa, 2019). Hyland (2004) points out that academic discourse is conducted in three main approaches. These three main approaches are contextual, critical, and textual ones, as in Figure (2.1) below.

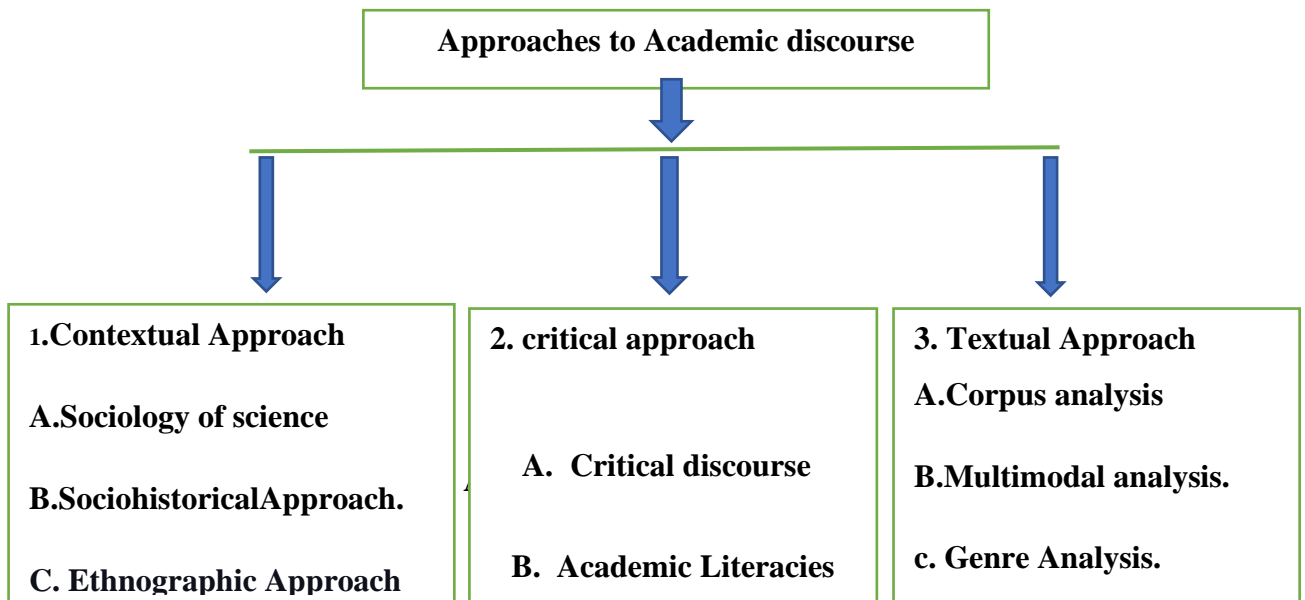


Figure (2.1): Approaches to academic discourse

The following subsection presents an explanation of each approach separately.



### **2.2.1 Contextual Approaches**

Linguists interested in text analysis who use contextual approaches might look beyond the page or screen. Contextual techniques seem to serve these linguists by defining the contextual elements of the discussion (Jomaa, 2019).

Hyland (2004) points out that there are three sub approaches: the sociology of science approach, socio-historical approach, and ethnographic in the contextual approach. In the sociology of science approach, a writer looks for conversation analysis and participant observation to create knowledge. Moreover, academic discourse researchers are focusing on preparing papers to be published after reaching an institution.

The second approach is the sociohistorical approach; in sociohistorical approaches, some boundaries limit these approaches as in (date and time). Cultural activities should be placed in their historical context to grasp the intellectual debate of a particular time. Writing has developed according to the social culture from time to time. The linguistic methods associated with reporting the experiment have been updated and shifted toward publications that place a greater focus on the technique and the tests involved. Academic papers should be textual reports rather than static ones to keep up with shifts in the disciplines' traditions and norms.

In the sociology of science approach, a writer looks for conversation analysis and participant observation to create knowledge. Moreover, academic discourse researchers are focusing on preparing papers to be published after reaching an institution.

The third approach is ethnographic, which relates to the scientific study of people and cultures, including their customs, habits, and mutual distinctions. Collecting data should consider individual behavior and circumstances during a specific period (Mackey, 1999). However, the methodology has been criticized for lacking precision, requiring more subjectivity, and focusing solely on activities. It has support and supporters who claim that this method, according to the argument, provides a wealth of first-hand knowledge based on interactions in the local environment. This method is used extensively in educational studies (Gardner, 2012). According to Coffin and Donohue (2012) the genre study of the literary approach, There is some overlap between ethnographic approaches and Systemic Functional Linguistics (SFL).The principles of both SFL and ethnographic methods come from

anthropology, which is the study of people.. SFL also shares another element, better characterized as an ethnographically informed text interpretation with an etic viewpoint on the academic text's surrounding meaning.

### **2.2.2 Critical Approaches**

According to Hyland (2004), the critical approach occupies the second category in discourse analysis. Jomaa (2019) mentions that this approach defines as an attitude toward dialogue and a way of thinking about texts, rather than a formal theory or category of data analysis methods. This aspect has fundamental approaches, including Critical Discourse Analysis (CDA) and Academic Literacies (Hyland, 2004).

Critical Discourse Analysis and Systemic Functional Linguistics have three standard features ( Halliday,1994; Halliday & Matthiessen, 1985; Jomaa, 2019). These features are:

1. Language is considered a social construct and community shapes language.
2. Discursive events affect the contexts, and the contexts are affected by these discursive events.
3. A point of view that emphasizes the significance of cultural and historical aspects of context. As a result, SFL provides CDA with a more nuanced method of analyzing the relationships between social contexts and vocabulary. Additionally, Jomaa (2019)criticizes (CDA) for choosing only specific text features to support some elements of the analyst's opinions while also reducing pragmatics to semantics.

### **2.2.3 Textual Approaches**

Halliday and Webster (2009) show that a corpus is a group of texts that have been chosen. and arranged based on factors such as representativeness, sampling, and balance. This corpus could be mono-generic or multi-generic, like the Corpus of American English. Textual Approaches Focus mainly on corpus analysis, multimodal analysis, and genre analysis.

A data analysis differs from qualitative variants of genre analysis. It focuses on massive databases containing millions of words of electronically encoded texts. The top three most commonly used words in English, according to corpus research, are "the, in, and to," accounting for approximately 10% of the actual use of a corpus of 400 million words. English corpus bank (Kennedy, 2014).

Jomaa (2019) reported that Kennedy's study lacks some characteristics, stating that People think that these words will help college students deal with the pressures of their academic environments. However, a lot of important things were not taken into account, such as how words are used together, how they are linked to other words, and how words have been used in the real world of academics. Such an issue could lead to a kind of misunderstood and misused thing. Corpus research characterizes students for failing to provide new vocabulary ideas, including only a brief description of language usage and describing the text as a material rather than a system (Hyland, 2009). If you want to learn more about corpus analysis, you might want to look at the most popular and commonly used words in a certain type of writing. However, the frequency data that was used in the corpus review may not be enough to find all the words. For example, beginner authors' repeated use or overuse of such linguistic features may not be by a specific academic group's beliefs and traditions (Jomaa, 2019).

### **2.2.3.1 Multimodal Analysis**

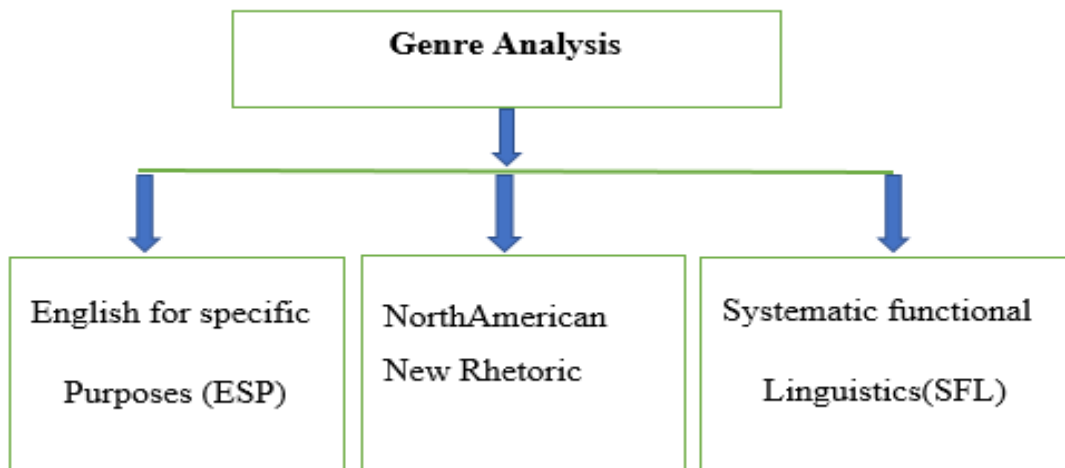
Some linguists assert, the textual methods, which characterize the third approach, linguistic discourse, provide a variety of substantive semiotic operations in addition to linguistic forms (Blommaert, 2005). Not only speech element limited but also visual elements of the genre in advertisement and journals included in this variety, in which both audio and visual are essential in the academic field. Only a few studies have looked at how the linguistic and visual elements work in various genres. As a result, there is much that can be said regarding the influence of such visual aids (Hyland, 2009). For instance, multimodal analysis may be used to study students' writings on social media platforms such as Facebook, Twitter, and Whatsapp.

### **2.2.3.2 Genre Analysis**

In English, the word "genre" means "kinds" or "types." It's a French word. This word refers to things in literature, like novels, short stories, and prose. This taxonomy is based on the way you write (Moessner, 2001). A lot of things that aren't written down can be found in the media, like movies and stage shows. They can also be found in published texts like emails and academic papers. are also included in the expression "genre" (Bruce, 2008). Study articles, academic papers, undergraduate essays,

submission letters, book reviews, Ph.D. theses, and textbooks are examples of written genres. At the same time, workshops, lectures, conferences, student speeches, conference presentations, Ph.D. defenses, and admission interviews are examples of spoken genres (Hyland, 2004). Genre analysis has gained much recognition in applied linguistics, especially with three practical approaches to genre analysis emerging: English for Specific Purposes (ESP), North American New Rhetoric studies, and Sydney School of Systemic Functional Linguistics (SFL). According to Swales (2009), the distinctions between these three types of genre analyses are unclear.

Figure (2) discusses three distinct genre analyses.:



**Figure (2.2):** Types of genre analysis (adapted from Hyon, 1996)

According to Hyon (1996), English as a Second Language is provided by ESP and Australian SFL genre studies (ESL) teachers insights into written texts. These two genres support English instructors. As for the third genre, the North American New Rhetoric School provides language teachers with a comprehensive understanding of the institutional environments in which technical and scholarly genres have been taught.

### **2.2.3.2.1. English for Specific Purposes (ESP)**

Use of genre as a way to analyze and teach non-native speakers the language they speak and write in academic and professional settings has caught the attention of

people in the field of ESP (Bhatia, 1982; Swales, 1990). Some people who study and write about ESL or EFL become more interested in analyzing texts. They pay more attention to how genres are structured and how they are taught, and less to how readers play specific roles and how social meaning is made. Students now take the lead instead of teachers because of ESP (Jayalakshmi, 2017).

### **2.1.3.2.2. New Rhetoric Studies**

"North American New Rhetoric Research" is the name of the second new method. There are a lot of people in North America who have it (Bazerman, 1988; Hyon, 1996). Scholars who use this approach are different from those who use the ESP approach to think about and study genres related to L1 teachings, like composition studies, technical writing, and rhetoric. Another difference between ESP and New Rhetoric scholars is that New Rhetoric scholars pay more attention to the contexts of genres and the social goals or actions that these genres achieve rather than the structure of these genres.

### **2.1.3.2.3 Systemic Functional Linguistics**

As Jomaa (2019) points out, even though Australian genre theories developed simultaneously as ESP and New Rhetoric studies, are unrelated. Furthermore, this Australian genre is known as Systemic Functional Linguistics, introduced by Michael Halliday, who established the University of Sydney's Department of Linguistics in 1975. Five groupings have been presented by Halliday and Martin (1993) to summarize the basic features of Systemic Functional Linguistics SFL:

(1) SFL is interested in describing the language as "a resource for meaning rather than as a system of rules" (p.25). As a result, SFL focuses on the possible significance of the speaker's words.

(2) Sentence/text- SFL focuses on the clause of the sentence rather than the sentence. As Coffin and Donohue (2012) point out, "in SFL, the text refers to units as small as a clause or as large as an entire academic monograph." (p.65). Text/context- the solidary connections between the text and the social contexts and the social practices they realize the subjects of Systemic Functional Linguistics. In other words, the text has not been regarded as a decontextualized structural entity. For instance, Jomaa and Bidin

(2019) point out "the science as a text and the science as an institution are two complementary perspectives on the scientific discourse." (p.8)

(4) Expressing/constructing meaning. SFL is a theory that deals with making the meaning of text or sentence.

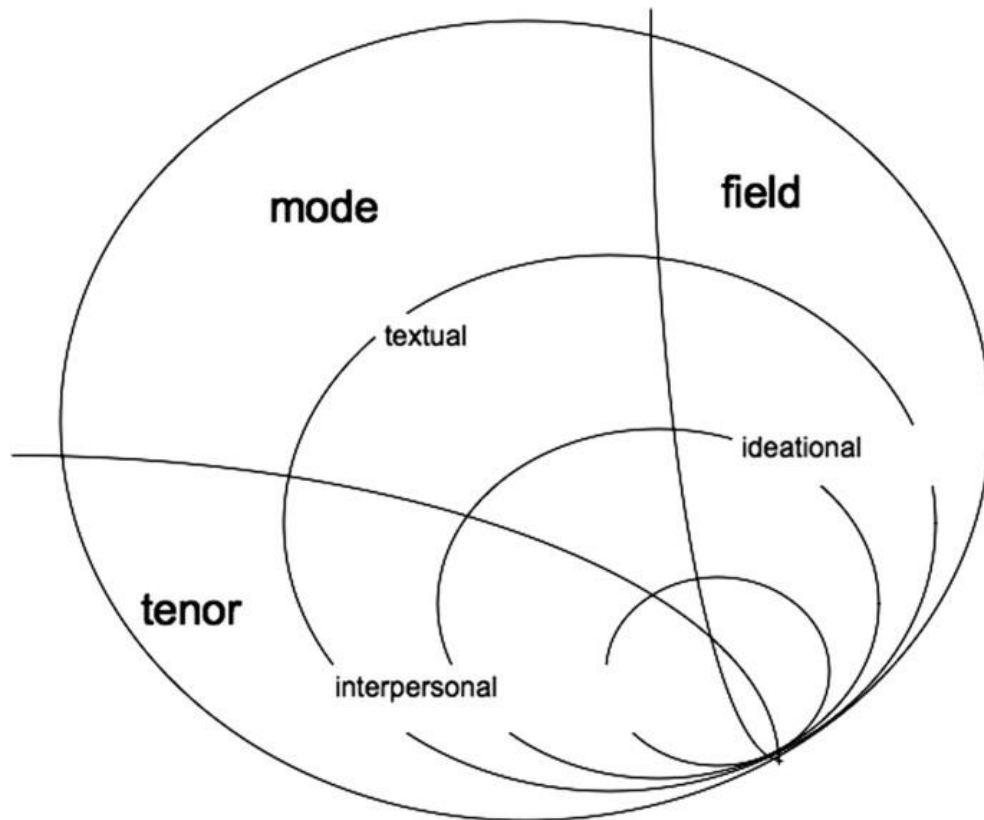
(5) Parsimony vs. Extravagance: SFL is against Parsimony. There is still a lot to learn about SFL theory. Bruce (2008) asserts that the Systemic Functional approach for classifying texts is based on the ideas of social anthropologists Bronislaw and Malinowski, who say that you should look at language and culture in the context of where you live.

SFL is a semiotic framework. In this aspect, SFL is a semion realized in two contexts: situational and cultural. The three dimensions of condition, as described by Halliday, are as follows: Field, Tenor, and Mode, which comprise the register of a text.

Halliday (1985) and Eggins (1994) illustrate these three context variables. The term "field" refers to what is happening, the heart of the collective activity taking place, and what the participants are doing. The participants, their positions, and their status have been referred to as the tenor. On the other hand, Mode refers to the text's symbolic realization and the aspect of language that plays a role in constructing the meaning. These three different variables work together to produce the configuration of the importance. This structure, in particular, plays a role in defining the text's type and context. Including three levels of importance: ideational, interpersonal, and textual definitions. As a result, in SFL, the three aspects of situation context: Field, tenor, and Mode, and the principles of language metafunctions: ideational, interpersonal, and textual, have a close relationship (Halliday, 1985; Halliday & Martin, 1993; Eggins & Martin, 1997).

Jomaa (2019) illustrates that field links with an ideational metafunction. Field and ideational deal with study relations from one person to another. What is going on, including details of who, why, and what is doing, what's the reason, in which time or place, and how? Tenor is associated with interpersonal metafunction, which is concerned with studying discourse's social meaning, including the importance of interaction and transactional and describing the feelings they try to share with others. The third register variable is the Mode associated with the textual meaning.

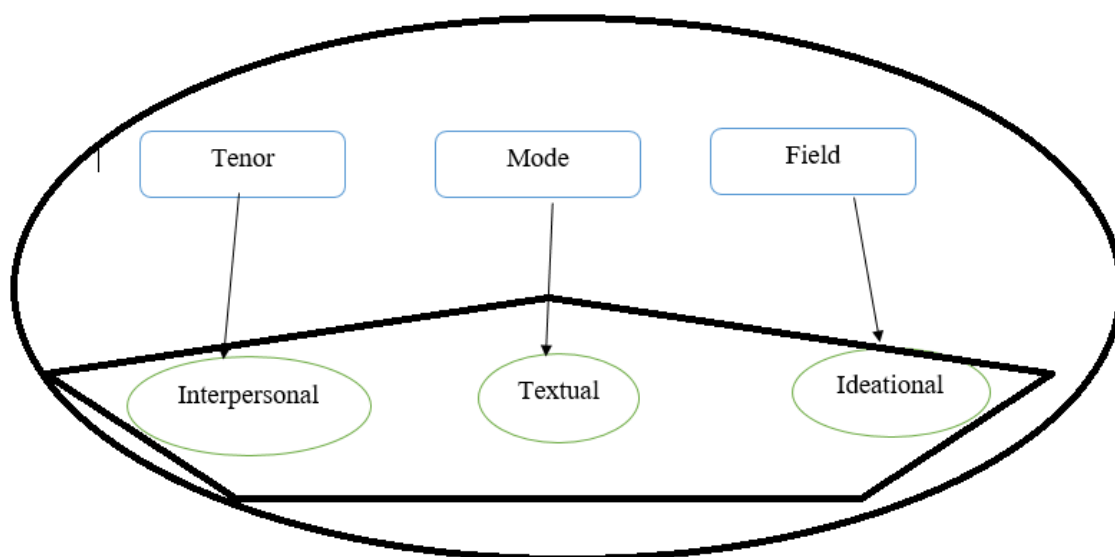
Figure (2) illustrates the relationship between Tenor, Mode, and Field and the three language metafunctions, and how each variable is linked with one metafunction.



**Figure (2.3):** Field, tenor, and mode with language metafunctions(Halliday & Matthiessen, 1985)

According to Halliday (1985), conceptual and interpersonal meanings have also been included in textual definitions. As a result, the clause has been structured as a message of two parts. The THEME element represents the standard type of information. In contrast, the RHEME element represents the new type of information.

Figure (2.3) shows the connection among tenor, mode, and field and the three language Metafunctions, while Figure (2.4) shows the relationship among field, tenor, mode, and metafunctions variables. Ideational with the Field. Textual with mood and finally interpersonal with tenor.



**Figure (2. 4):** Field, tenor, and mode concerning language metafunction (Halliday & Matthiessen, 1985)

## 2.3. Related Taxonomies

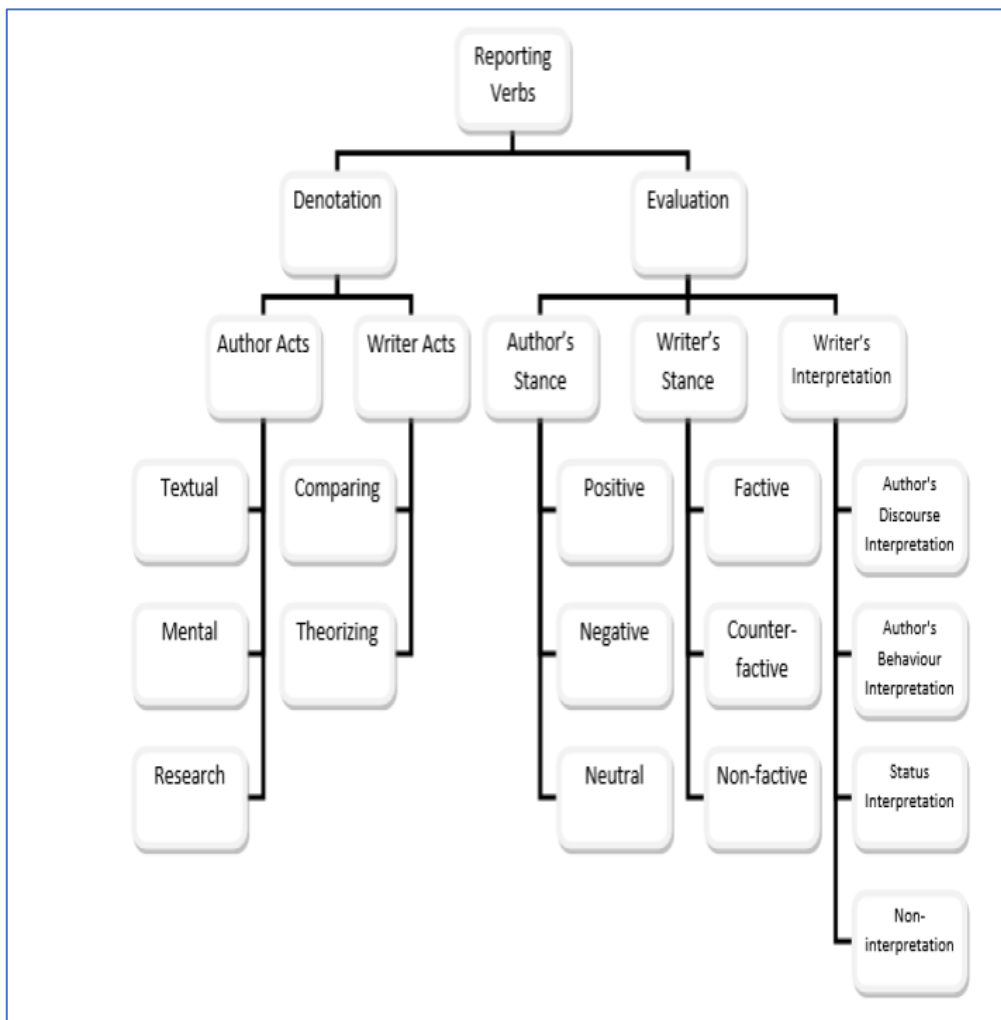
The following subsections present the most related taxonomies and definitions of the present study. These include.

### 2.3.1 Thompson and Ye (1991)

They are prominent leaders and more famous in the classification of RVs. Following the adaptation of a study corpus, they group reporting verbs into two essential categories, "Denotation and Evaluation," based on their purpose. They stress differences in their classification between the speaker, the individual who quotes, and the speaker who mentions. The "Denotation" is subdivided into two major categories author acts and writer acts (Thompson & Ye 1991). The first is called "author actions," in which RVs talk about the role of the author. This category is subdivided into the following three subgroups: Textual, research, and mental. To present an author's words, such as "say" or "state," textual verbs are used. As its name suggests, the mental subcategory contains verbal references associated with cognitive processes such as "assume" or "think." The last subcategory contains vocal phrases that illustrate a physical and mental stage during the study; this is called analysis verbs, e.g., 'measurement' or 'discovery.'



The second group is "Acts of Authors." There are also two significant subcategories in this group. "Compare," for example (differ or conform to) refers to the author's statements in conjunction with a specific point of view. On the other hand, "theorizing" verbs are helpful to authors by profiting from the support the author says. Thompson and Ye (1991) classified reporting verbs into three main subcategories; the role of the researcher, the location of the author, and the interpretation by the authors. The distinction between the writer and the author (two sides interested in academic writing) and the difference between position and perception (two assessment methods). Where there is a distinction between the position from perception (two assessment methods). The figure below summarizes the RVs classification.

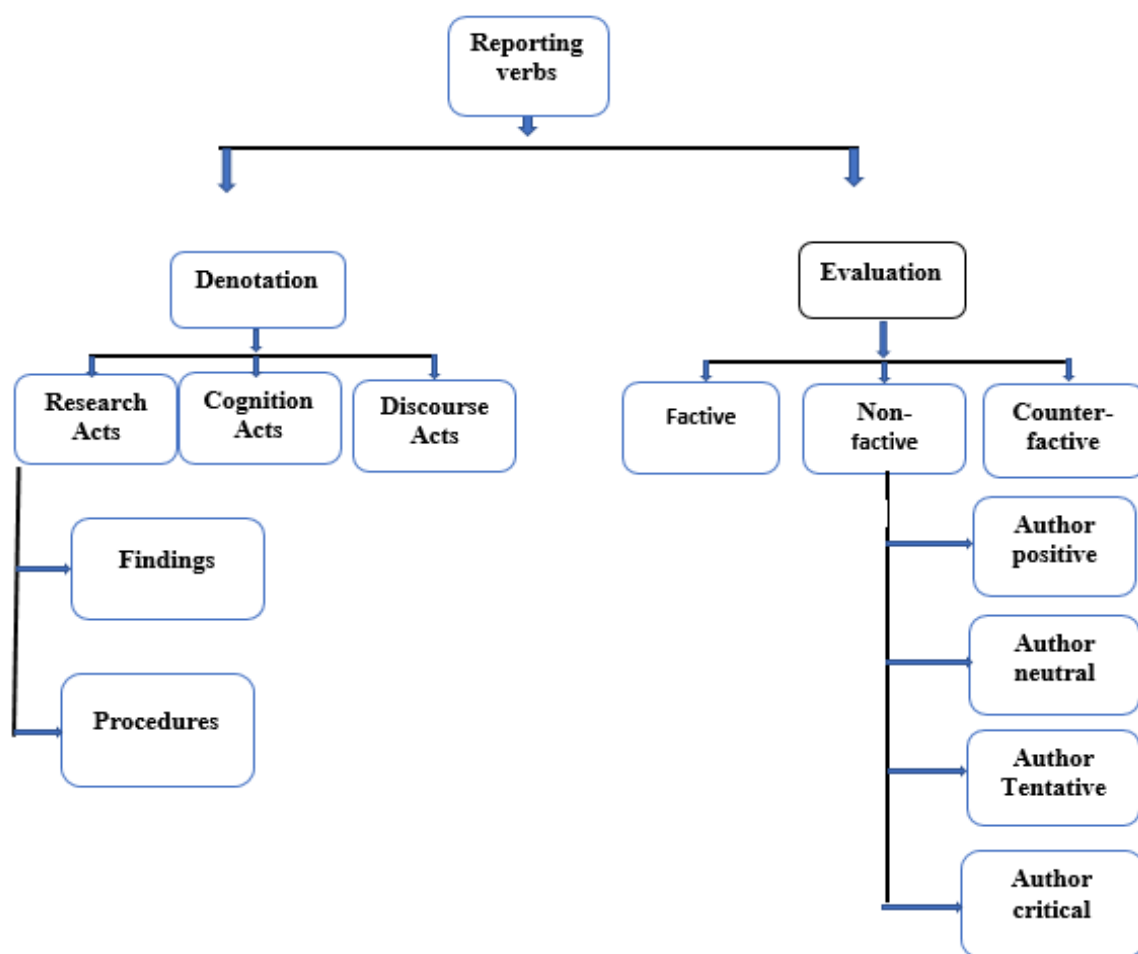


**Figure (2. 5):** Classification of reporting verbs (Thompson & Ye, 1991)

The following subsection addresses another related taxonomy of the classification of reporting verbs.

### **2.3.2 Hyland's classification of reporting verbs**

A classification by Hyland is better than Thompson and Ye's (1991) one, but there is no big difference between the two of them. In Hyland's book, reporting verbs are divided into two groups: "Denotation" reporting verbs and "Evaluation" reporting verbs. It starts with "research" acts, "cognition" acts, and "dialogue" acts in the first part. First, research is about how to do research or experiments (e.g., find, show) (the writer's interpretation). Second, cognitive acts are mental processes that the author talks about in his text (e.g., believe, think) (the author's position with his claims is shown). The last group, the speech actions, is made up of verbs that need to be used verbally (e.g., say, mention) to show the author's point of view. People on the other side of the argument use verbs that are active, non-active, and counter-factive. Factive studies are meant to let people think about themselves, for example. Discuss, say, argue, and so on. Readers make the author's position ambiguous by using non-factive verbs, like arguments, declarations, and so on, to report what the author says. It's possible for people to write counter-factive text reports that allow them to point out objections or reservations to the original author instead of taking responsibility for their own assessment, which is called dubious.



**Figure (2.6):** Hyland’s Frameworks of reporting verbs

## 2.4 Related Studies

Charles (2006) investigated reporting verbs among various disciplines. This study explores the phraseological patterns used to refer to research through reporting clauses. The corpus of these writings by native speakers in different disciplines: The total number of words in politics/international reaches 190,000 words. While in materials science, the total number of words is nearly 300,000 words. The results indicate that these reporting verbs use by both disciplines in significant numbers, and a human subject is most widely used as integrated quotations. He reveals that a verb group argues most frequently in both fields, and the reporting clause in both corpora has a high frequency. However, FIND and SHOW groups have many occurrences in material science.

The frequency of research reports in both corpora is very similar and indicates that this pattern is used compared to reporting literature. However, it is essential to note that this does not mean that there are exact quotes generally in the two corporations. However, the reporting clauses in the political and material sciences use this complement to a similar extent. This study analyzed theses in two disciplines, political/international affairs, and materials sciences, while the current research analyses journal articles in four fields.

Kwon (2017) investigated the frequency of reporting verbs of the second language (L2) authors in a first-year writing program in a North American context. To explore how first-year L2 writers utilize reporting verbs in an academic genre, the writer chose a literature review assignment from the Corpus and Repository of Writing (Crow). How often verb forms have been used and how authors use verb forms from those semantic categories is studied. Authors record the frequency of usage across verb forms and indicate how they employ verbs in specific semantic categories. (e.g., show, find, think, argue) Furthermore, rhetorical functions (Reporting from the text (R), Self-referential (S), Uncited Generalization (U)). The study's findings showed no difference between second-language writers in the first year and high-level writers reporting verbs. This study examines the reporting verb practices of L2 writers. A literature review job from a larger corpus is used and written. In contrast, the corpus of the present study focuses on analyzing reporting verbs in published journals, comparing the use of reporting verbs in the hard and soft domains.

The authors of another close study, N.Un-udom (2020) and S. Un-udom (2020) demonstrate important categories which are:

(1) The group of reporting verbs is used most commonly in applied linguistic articles.

(2) Reporting verbs are used the most frequently in the citation process. Applied linguistic journals were used to gather data for this study, which included 52 papers.

Using

the matching function of Antconc software is used for analyses.

This study concentrates on reporting verbs stated in the section of the literature review as it consists of more reporting verbs than the other sections of the study.

Researchers utilized tablets first and then classified them according to the framework of Hyland (2004). The study's findings demonstrate that reporting verbs categorize into three main categories: discourse acts, cognition acts, and research acts. The latter category is the most frequently used in reporting verbs. The study also provides findings in various sub-categories of the research, speech and cognitive behavior commonly used. Reporting verb forms and voices in applied linguistic articles have also been examined. There is also an examination of the use of reporting verb phrases and votes according to the Hyland framework (2002).

There are some differences and similarities. The resemblance in both of these studies is the analysis of published journal articles. The difference lies in the writer's use of one discipline, namely Applied linguistics, whereas the current study uses eight fields. This study focuses on the literature review, and the present study focuses on the introduction and literature review sections.

Mar (2020) investigated the use of reporting verbs in the research articles. This study aims to decide which reporting verbs are the most frequently used. Furthermore, which form of verbs is the least popular in the research papers, and examines how reporting verbs are used in the research articles. The current study analysis aims to explore the usage of reporting verbs used in research papers. To identify the reporting verbs in the research articles that are the most common use and which are the least frequent, 14 articles are examined to conduct the study from English departments in Myanmar. Hyland's taxonomy categorizes the reporting verbs as research, cognition, and speech acts. The findings show that speech acts are the most commonly used, and the least used one is the type of cognition acts found in articles.

Hyland's taxonomy of reporting verbs has the verb forms and voices of different sub-categories. Further reviews of a segment of research papers from various disciplines are recommended. The data have been collected and analyzed via a checklist in this report. Ten random research papers are chosen from the Banmaw University Library, published in 2019. Twenty-two teachers from the English departments of the Ministry of Education, Myanmar, wrote the papers.

Uba (2020) studied the reporting verbs across four disciplines in research articles in different domains, namely Engineering, Medicine, Accounting, and Applied Linguistics.

The general corpus of this study is 120 articles; each discipline consists of 30 articles. Two levels of research are conducted in this study. First, the author has randomly chosen five articles from each field and reads and rereads any article that reports the verbs used, in what sense, and why they are used. This process helped the author to define semantic reporting verb categories. Secondly, the writer used the list to produce concordance results for quantitative textual analysis of sub corpus of the four disciplines, based on the established semantic types of reporting verbs, like the corpus general. The study's findings indicate that writers from the soft domain have more reporting verbs than authors from the fields of the hard specialization. It also demonstrates that there are some gaps between disciplines and their commonalities.

There are similarities and differences between this study and the current study. The similarities between these two studies are that both studies focus on reporting verbs in different disciplines. In this study, the writer utilizes two various fields that belong to the soft domain and the other two disciplines that belong to the science domain. Whereas the differences lie in the method and conceptual framework as this study is quantitative, while the current study is qualitative.

Yeganeh and Boghayeri (2015) state that writing is an essential learning method and a means of assessing and adding writers to punitive speech communities. Students know their essential elements, such as form and function, when they write academic genres. Quoting is an instrument for a rhetorical scholarship that suggests an appreciation of previous works by the authors. This study investigates the frequency and the function of the most used reporting verbs. This study contains 60 articles, half of them by native and another half by non-native, published in international and National Journals. The findings show that the use of reporting verbs among the two corpora is different. The results achieved can be used to design tasks and teach writings that focus not only on grammar but also on rhetorical and other types of writing.

Yu (2021) studied the frequency of reporting verbs in judicial arguments. It is based on examining the representation and distribution of reporting verbs in court decisions by judges. The findings indicate that reporting verbs in court decisions are distinct. This study may shed light on both judicial and pedagogical procedures. The study results find high-frequency reporting verbs in court judgments and compare them to those in a comparable reference corpus, a written sampler of the British National Corpus, which serves as a reference corpus. The findings revealed:

(1) In general, there are more reporting verbs in a court judgment than there are in other texts.

(2) There are more speech act verbs in the self-created court judgment corpus than there are reporting verbs in the source corpus.

(3) Judicial speech act verbs show the authority of statements, while judicial mental verbs show how people make legal decisions with their own minds.

(4) The reporting patterns of verbs in court decisions and general texts are substantially different. The findings indicate that the reference verbs have significance in court rulings, which may shed light on legal and pedagogical activities. There are apparent differences and similarities between this study and the current study.

There are similarities and differences between the findings of this study and the present study; both of them investigate appropriate reporting verbs, but the sampling and conclusions are different. The author analyzed documents taken from the court. They followed the corpus analyses. The current study focuses on analyzing articles from the Turkish high-ranking scientific Journal and comparing reporting verbs in the hard and soft domains.

Swear and Kalajahi (2019) focused on significant problems raised by technology universities. The participants of this study are Postgraduate students. They are unfamiliar with using an appropriate reporting verb, sometimes over-use or misuse of some reporting verbs. That makes their work monotone and repetitive. The researcher is based on a small corpus of 3 Master theses prepared by the students who completed their Masters in Engineering at the University of Technology. The term "author" refers to the master student who reports knowledge and ideas of previous

studies in the same field, and the word "source" refers to the person who has been mentioned as a reference in this article.

The study has shown the tendency of the students to use factive verbs rather than non-factive verbs, but they are unable to use the contrary verb in the language. This study shows that they cannot contest the present situation. The collected data were quantitatively analyzed under the frequency of these reporting verbs and qualitatively to explain each form of reporting verb's role. The analysis consisted of Factive, Non-factive, and counter-factive verbs

Maide YILMAZI and Zeynep ÖZDEM ERTÜR (2017) investigated the frequency of reporting verbs in research articles. 160 research articles from native and non-native authors published in peer-reviewed, international journals, were selected. The researcher chooses 80 articles from native authors and 80 from non-native authors. The findings revealed that reporting verbs like observed, notice, indicate, and revealed were more frequent by non-native writers and the researcher mentioned that findings may help non-native researchers by choosing appropriate reporting verbs and avoiding choosing reporting verbs randomly in an academic field. There are common similarities and differences between the two studies. Both studies choose published research articles as a corpus of study. On the other hand, the difference is the researcher in the current study chooses research articles that belong to Turkish authors only while in the other study, the researcher chooses native and non-native writers.

## **2.5 Conceptual Framework**

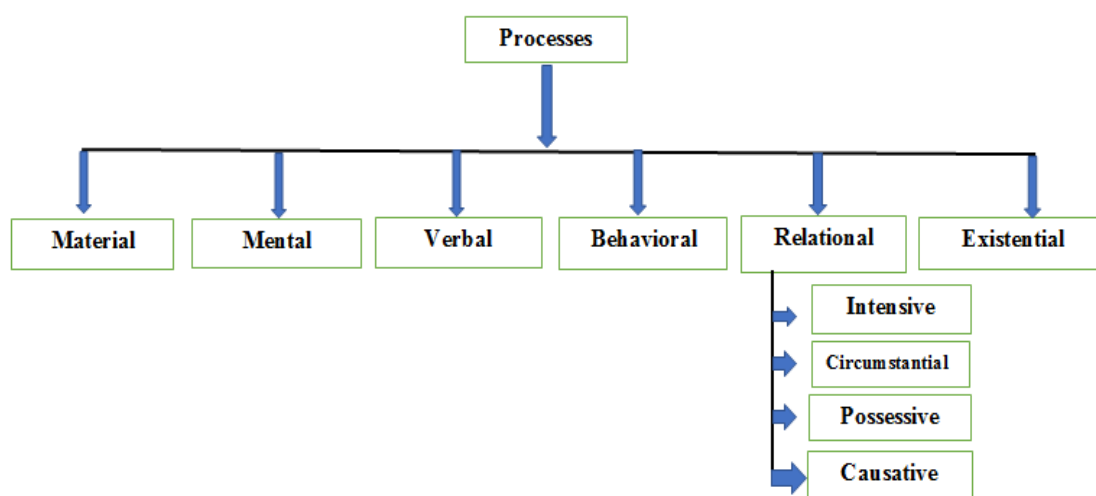
The current study adopts systemic functional linguistics SFL (Halliday, 1985) as a conceptual framework, focusing mainly on analyzing reporting verbs in eighty articles' introduction and literature review sections. According to Halliday and Matthiessen (1985), a social philosophy in Systemic Functional Linguistics of language usage designs to simultaneously make three kinds of definitions, especially Ideational, Interpersonal, and Textual.

Jomaa and Bidin (2019) point out that SFL is different from other theories. SFL added three main categories: relational, existential, and behavioral, while a study by Thompson et al. (1996) only three sorts of verbs were included, namely textual discourse, mental cognition and experimental research verbs. The Transitivity System



of the SFL also includes processes such as behavioral, relational, and existential.. Jomaa and Bidin (2019) criticize different classifications and support Halliday's classification and illustrate that all three categories are similar in all the classifications. However, Halliday adds three new categories, relational, existential, and behavioral, which means that these verbs were neglected in previous classifications (Hyland, 1999) or (Thompson & Ye, 1991).

The present study adopts Halliday's taxonomy for this purpose.



**Figure ( 2.7):** Process in transitivity system (experiential meanings) (Halliday, 1985)

Halliday points out that there are six main types of processes in the English transitivity system. The most common processes are material, mental, and relational. They are, among other things, the most frequent types, but the writer notices here that the relational process is more frequent than mental verbs. It discovers that different categories located at the three boundaries are not so clearly set apart but recognizable in the grammar as intermediate between the other pairs sharing some features of each, thus acquiring a character of their own.

Behavioral processes are on the border between "material" and "mental." They show the outside manifestations of inner workings, the acting out of processes of consciousness (like when people laugh), and physiological states (e.g., they were sleeping).

Verbal processes fall on the line between "mental" and "relational." They are symbolic relationships that people make in their minds and then act out through language. like saying and meaning (e.g., the 'verbal' clause we say, introducing a report of what was said: that every fourth African is a Nigerian). On the borderline between 'relational' and 'material' is the processes concerned with existence ( the existential), by which phenomena of all kinds are recognized to 'be'– to exist, or to happen (e.g., today there is Christianity in the south) (Haliday,1985 ).

## **2.6 Summary Of Chapter Two**

Chapter two introduces the theories related to the current study, namely Halliday (1985), Swales' (1990) Thompson and Ye (1991), and Hyland (2008), as well as reviews the most related studies to the topic of academic writing. The focus is mainly on Haliday's (1985) classification, which is the theoretical framework used in the current study. Finally, a summary of the chapter is presented at the end of the chapter.

## **CHAPTER THREE: METHODOLOGY**

### **3.1 Introduction**

Chapter three presents eight sections which are Research Design, Population (Sampling), Data Collection Method, Data Analysis Methods, (Pilot Study), Trustworthiness (validity, reliability, credibility), Ethical Considerations, and the Summary of the chapter.

### **3.2 Resaearch Design**

Creswell (2016) states that assumptions and the use of interpretive/theoretical frameworks that inform the examination of research problems addressing the meaning people or groups give to a social or human situation are at the heart of qualitative research. He mentioned that qualitative researchers collect qualitative research data using documentation, behavior monitoring, and multi-participation. They can utilize a tool, but it is one that the researcher has built using open questions. They tend not to employ or depend on questionnaires or other researchers' instruments.

Heigham and Croker (2009) define qualitative research as " an umbrella term used to refer to a complex and evolving research methodology "(p.5). It is available in different disciplines, like sociology, philosophy, and applied linguistics. An increasing number of research approaches support qualitative research, containing grounded theory, ethnography, phenomenology, and study case.

This group of different research approaches has other data collection methods, such as discourse analysis, diaries, observations, and verbal reports. With these different approaches and various ways, there are several techniques. These research techniques help qualitative researchers do daily works, draw maps on how to write a research project, collect and analyze data, and write findings. The written final report includes

- the voices of respondents,
- the reflexive mentality of the people,
- a compact definition and analysis of the problem,
- its contribution to or the call for reform to Literature.

It is also demonstrated that qualitative research means a specific issue or little problem needs to be explored. However, how this exploration will happen by studying a population group refers to different variables that are difficult to measure. These reasons are suitable for investigating a specific problem rather than using Literature or depending on other studies' findings.

The researcher focuses on qualitative because he/she needs to get complete details and get more information to understand this issue. The writer can get these details by talking with people face-to-face doing interviews with them at their homes, workplaces everywhere, and allowing them to describe stories away from what we have heard and read in Literature.

A published research article is used in the current study employing an introduction and literature review of 80 articles in eight different disciplines, namely Medicine, biology, nursing, chemical engineer, Applied linguistics, Economy, English Language and Literature, and Language Teaching and Educational Research. Forty articles from the soft domain and forty articles from the science field were included. All these articles were published in public Journals between 2018 to 2021. Full details about these articles are present in eight tables below in the appendix, and the following tables illustrate the description of Journals in soft articles.

**Table 3.1:** Descriptions of Journals of the soft domain

<b>No</b>	<b>Title of Journals</b>	<b>Number of articles</b>	<b>Date of publication</b>	<b>Citation style</b>
<b>1</b>	<b>EJAL Eurasian Journal of Applied Linguistics</b>	<b>10</b>	<b>2018-2020</b>	Author, (date) style)
<b>2</b>	<b>Eurasian Journal of English Language and Literature</b>	<b>10</b>	<b>2019-2020</b>	Author, (date) style)
<b>3</b>	<b>Language Teaching</b>	<b>10</b>	<b>2019-2020</b>	Author, (date)

	<b>and Educational Research</b>			style)
<b>4</b>	<b>Journal of Economy Culture and Society</b>	<b>10</b>	<b>2019-2020</b>	Author, date) style)
<b>Total</b>		<b>40</b>		

**Table 3.2:** Descriptions of Journals of the hard domain

<b>No</b>	<b>Title of Journals</b>	<b>Number of articles</b>	<b>Date of publication</b>	<b>Citation style</b>
<b>1</b>	<b>MARMARA MEDICAL JOURNAL</b>	<b>10</b>	<b>2020</b>	<b>Numbering style</b>
<b>2</b>	<b>MEDICAL RECORDS- International Medical Journal</b>	<b>10</b>	<b>2019-2020</b>	Numbering style
<b>3</b>	<b>JOURNAL OF THE TURKISH CHEMICAL SOCIETY</b>	<b>10</b>	<b>2020</b>	Numbering style
<b>4</b>	<b>COMMUNICATIONS SERIES C</b>	<b>10</b>	<b>2020</b>	Numbering style
<b>Total</b>		<b>40</b>		

**Table 3.3:** Coding used in documenting the examples in the current study data

<b>No.</b>	<b>Journals title</b>	<b>Domain of the</b>	<b>Coding of journals title</b>	<b>Number of the article</b>

		study		
1.	<b>MARMARA MEDICAL JOURNAL</b>	Hard	M.J.	Article1,2,3,4,5,6,7,8,9,10
2.	<b>MEDICAL RECORDS- International Medical Journal</b>	Hard	I.M.J	Article1,2,3,4,5,6,7,8,9,10
3.	<b>JOURNAL OF THE TURKISH CHEMICAL SOCIETY.</b>	Hard	C. E	Article1,2,3,4,5,6,7,8,9,10
4.	<b>COMMUNICATIONS SERIES C</b>	Hard	BIO.	Article1,2,3,4,5,6,7,8,9,10
.5.	<b>EJAL Eurasian Journal of Applied Linguistics</b>	Soft	AL.	Article1,2,3,4,5,6,7,8,9,10
6.	<b>Eurasian Journal of English Language and Literature</b>	Soft	E.L.L	Article1,2,3,4,5,6,7,8,9,10
7.	<b>Language Teaching and Educational Research</b>	Soft	L.T.E	Article1,2,3,4,5,6,7,8,9,10
8.	<b>Journal of Economy Culture and Society</b>	Soft	E.C	Article1,2,3,4,5,6,7,8,9,10

### **3.3 Data Collection Method**

Eighty electronic articles are chosen, written from 2018 to 2021 by Turkish authors from published Journals across two disciplines, the Hard and Soft domain, and each field includes four main subjects. Medicine, Nursing, Biology, and Chemical engineer belong to the hard domain. In contrast, the soft domain has Applied linguistics, Economics, Language teaching, educational research, and English language and literature articles. Heigham and Croker (2009) illustrate that they provide a great potential to double as a resource center tool for data collecting. For instance, assignments of students could be a data method.

Researchers can use their journals to analyze them from different perspectives, like observations, reflections, and decisions. Besides formal written entries, journals can incorporate visuals, such as pictures, drawings, symbols, diagrams, maps, or graphical samples of students' work and quick post-it note messages or reminders. They can be used separately for personal reflection and analyses or collectively with other teachers, cowriters, "critical friends," mentors, or supervisors.

### **3.4 Data Analysis Method**

The present study is based on document analyses using two sections from the article literature review and introduction. Sometimes, the researcher notices that these two sections are integrated and sometimes finds them separated. After collecting articles and calculating all words in these two sections, the researcher starts analyzing these documents by converting these articles from soft to hard copy and manually exploring away from electronic programs according to Halliday's classification of verbs.

The writer of the current study calculates all the reporting verbs in the introduction and literature review chapters and classifies them according to Haliday's taxonomy; each category will take a different color. Finally, the researcher makes a comparison after calculating these verbs and showing the use of reporting verbs in these two disciplines clarifying which one is more frequent use than the other.

### **3.5 The Pilot Study**

Heigham and Croker (2009) state "A pilot study provides an opportunity for researchers to test and refine their methods and procedures for data collection and

analysis” (p.49). They point out that although a pilot study cannot give the researcher all of the information that a researcher needs to be a great researcher, it may save us a lot of time and energy by identifying possible difficulties that can be addressed before the actual study begins. A pilot study gives the researcher an idea of choosing participants and results; and avoids the researcher falling into mistakes. In the current study, the researcher chose six articles as the corpus of the pilot study; these articles are published in Iraqi J. Comm. Med., July. 2019. Three of these articles are from the medical discipline, whereas the other three belong to the applied linguistics field.

Examples of verbs in medical articles of the hard domain are:

**Relational:**

Doctors’ role **is** to instill positive energy within the patient, through which sick people find relief from suffering (p.80/M.E). (is) relational verb.

**Verbal:**

A meta-analysis of controlled studies in China **found** that community interventions provided by primary care professionals in China remain effective for managing patients with hypertension (P.86/M.E). Verb (found ) is verbal.

**Material:**

In Diyala province, the first seroepidemiological study of HBV infection was **conducted** from 1989 to 2002. (p.74/M.E/). Conduct is a material verb.

**Mental:**

Suggesting that it may contribute to **maintaining** the endemicity of the disease in the community (p.74/M.E). Maintaining is the mental verb.

**Table 3.4:** Frequency of reporting verbs in a pilot study ( Hard domain)

Article numbers	Discipline	Verbal	Mental	Material	Relational	Existential	Behavioral
Article 1	Hard	6	11	4	15	0	0
Article 2	Hard	5	4	0	10	0	0
Article 3	Hard	10	3	0	12	0	0
Total		21	18	4	37	0	0



Percentage		26%	22%	5%	47%	0%	0%
s							

**(1) Verbal verb :**

Zemach et al. (2003) state that writing paragraphs depend on four steps that are, pre-writing, drafting, revising, and editing, as clarified by Gebhard. (p.180/AL). verb(state) is verbal.

**(2) mental verbs:**

Writing is seen as a language learning tool and is considered a crucial skill in everyday life and a basic category of foreign language teaching. (p.178/AL). (seen and consider) are mental verbs

**(3) existential verb:**

there are “cultural differences in the way academic register is perceived and understood in different countries. (p.180/AL). There is an existential verb.

**(4) Verbal verb:**

Al Fada (2012) reports that transformation is a common writing difficulty EFL students face. (p.180/AL) Report is a verbal verb.

**(5) Material verb:**

They should study how to express themselves. They should follow social and cultural rules in any context. (P.685/AL). (study) is a material verb.

**Table 3.5:** Frequency of reporting verbs in the pilot study (soft domain)

Article numbers	Discipline	Verbal	Mental	Material	Relational	Existential	Behavioral
Article 1	Soft	12	25	0	11	1	0
Article 2	Soft	17	20	4	26	3	0
Article 3	Soft	13	7	15	17	2	1
Total		42	52	19	54	6	1
Percentages		24%	30%	11%	31%	3.50%	0.50%

Table (3.5) illustrates the frequency of reporting verbs in the soft domain, in which three articles from the applied linguistics disciplines are analyzed. These articles are published in Iraqi journals (International Journal of Linguistics, Literature, and Translation (IJLLT)). According to Table (3.4.2), the number of reporting verbs in the soft domain is different from the number of reporting verbs in the hard domain. The number of reporting verbs increases in the soft domain, and the use percentage is also different. Three common categories occupy the first three ranks, and the other three categories occupy the last ranks. The use of relational verbs appears in high percentage in hard and soft domains, and existential and behavioral verbs recorded a low use rate.

**Table 3.6:** Coding used in documenting the examples in the pilot study.

Article-No.	Coding participant	Discipline of article	Page number.
Article 1.	p.1	AL.	p.n
Article 2.	p.2	AL.	p.n
Article 3.	p.3	AL.	p.n
Article 4.	p.4	ME.	p.n
Article 5.	p.5	ME.	p.n
Article 6.	p.6	ME.	p.n

The findings show the use of reporting verbs across two disciplines, hard and soft domains. The corpus of the pilot study is six articles published in Iraq; three articles are science domain while the other three are soft. These findings appear according to the Holidays taxonomy. The tables below show a comparison of using reporting verbs in each category.

### **Material process.**

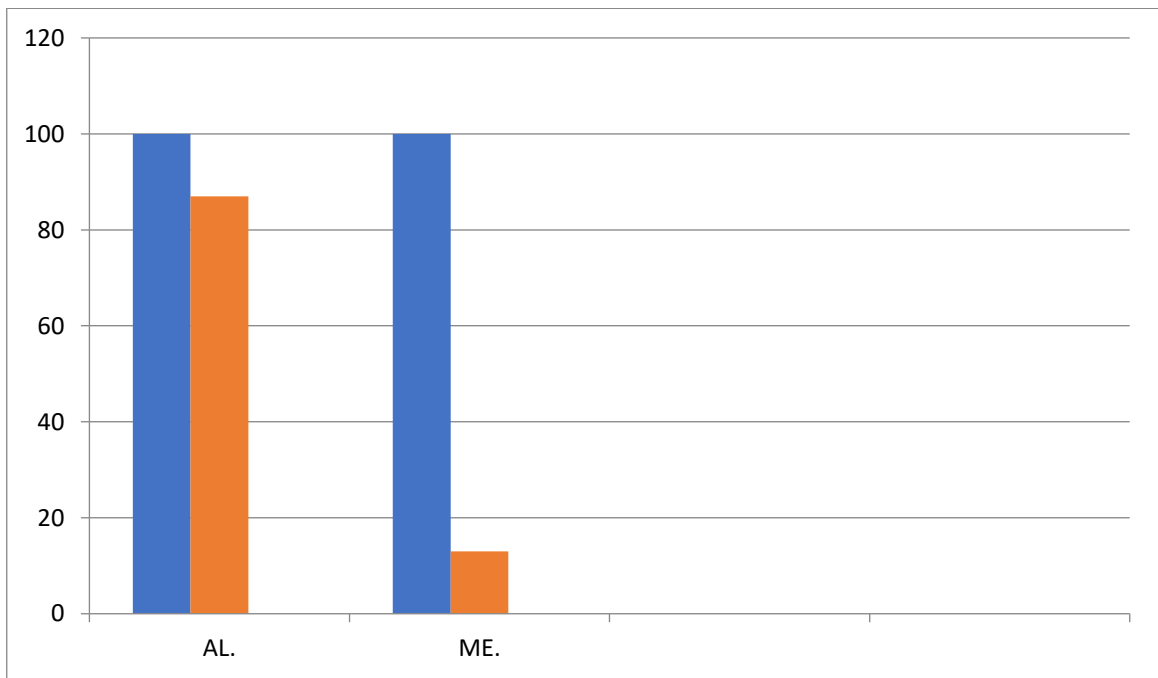
As Jomaa and Bidin (2019) point out, “Material processes imply doing something; these reveal that some entity did something, thus involving two

participants: The Actor and the Goal, as well as another optional constituent, called the circumstantial.” (p.192)

**Table 3.7:** Material processes in the introduction and the literature review chapters of ME. and AL.

N0	Discipline	p.1	p.2	p.3	Total	Percentage
<b>1.</b>	<b>AL.</b>	<b>0</b>	<b>4</b>	<b>15</b>	<b>19</b>	<b>87%</b>
<b>2.</b>	<b>ME.</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>13%</b>

Table (3.7) shows the use of material verbs in applied linguistics and medicine. The difference in usage is straightforward. Applied linguistics employs reporting verbs is higher than that of reporting verbs in medicine.



**Figure(3.1)** percentage use of material verbs in pilot study data

Figure(3.1) shows the percentage use of material verbs in the hard and soft domains in the pilot study. The findings reveal that material verbs in applied linguistics record higher percentages than material verbs in medicine.

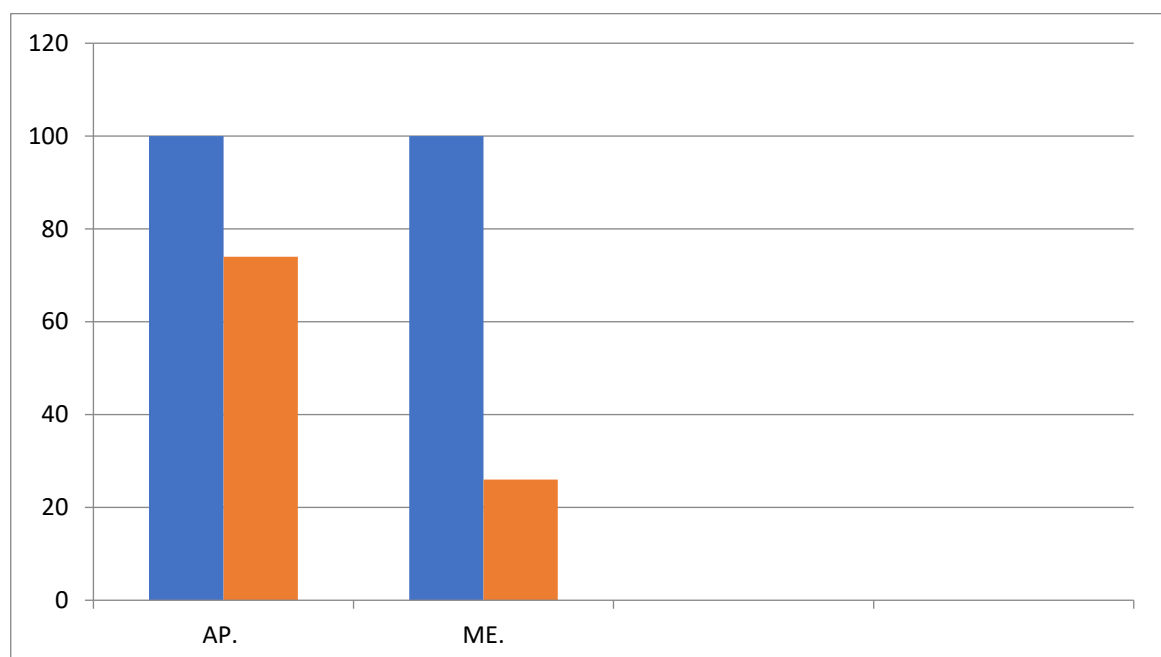
### **Mental verbs**

Mental verbs refer to thinking and mind, such as (think, believe, consider, maintain). The table below shows the use of cognitive verbs in the pilot study. (e.g.) (1).which is **considered** the production of the information, while the second is the function of interaction, which can be **considered** the main aim of interaction to improve social relationships. ( p.n .865/AL) consider is a mental verb.

**Table 3.8:**Mental processes in the literature review and introduction chapters of AL and ME

N0	Discipline	p.1	p.2	p.3	Total	percentage
1.	AL.	25	20	7	52	74%
2	ME.	11	4	3	18	26%

Table (3.8) illustrates the frequency of mental verbs in two disciplines, namely applied linguistics and medicine. The number of cognitive verbs in Applied linguistics is 52, while the same category in the science domain decreases to 18. There is a difference in the use of mental verbs in hard and soft domains. The following figure shows the difference of percentage in mental verbs.



**Figure(3.2):** percentage use of mental verbs in pilot study data

Figure(3.2) shows the difference in the use of mental verbs in six published articles. Mental verbs percentages in the soft domain are higher than percentages of the hard domain.

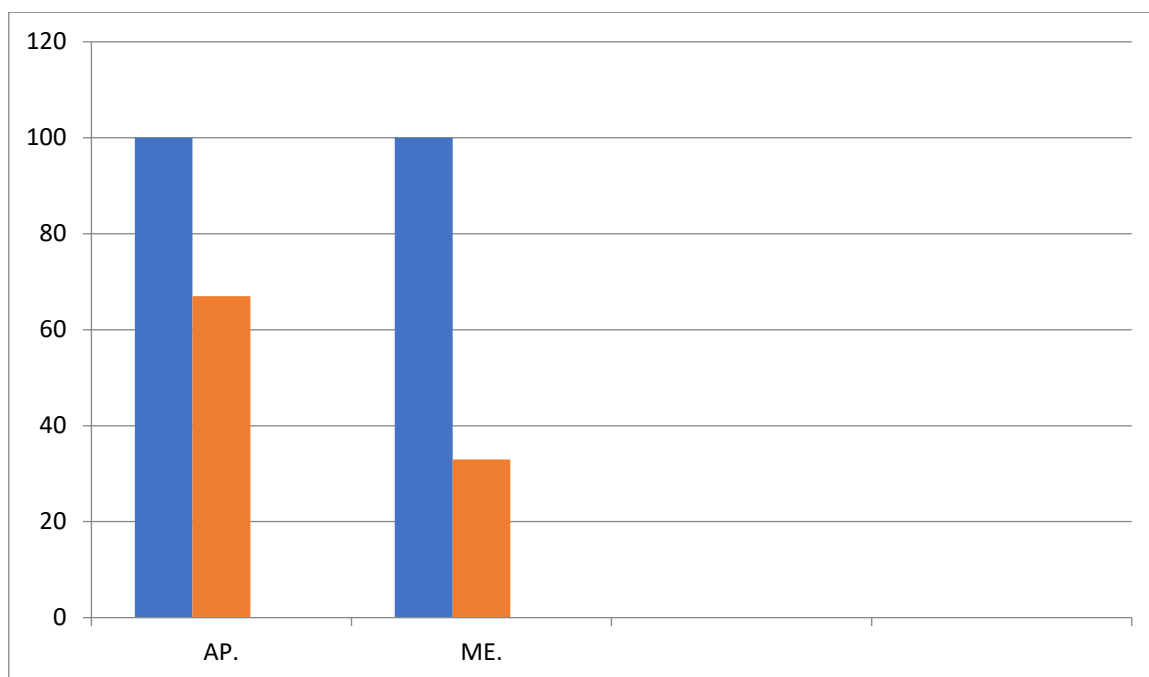
**Verbal Verbs:** Verbal verbs are verbs that refer to discourse or speech without any effort. Table(3.4.6) below shows the frequency of verbal verbs in the pilot study.

(e.g.)1. Chaney (1998) states that speaking ability is sharing and building meaning while using verbal and non-verbal symbols in different situations.( p.2/ P.n 863/AL).state is verbal verb.

**Table (3.9):** Verbal processes in the literature review and introduction chapters of AL.and ME.

N0	Discipline	p.1	p.2	p.3	Total	Percentage
1.	AL.	12	13	17	42	67%
2.	ME.	6	5	10	21	33%

Table 3.8 illustrates the frequency of verbal Processes in hard and soft domains. In applied linguistics, the verbal process is mentioned 42 times in three articles' introduction and literature review sections. Simultaneously, in medicine, the number is 21 times less than the discourse process discussed in the literature review and introductory portions of medical papers.



**Figure (3.3):** percentage use of verbal verbs in pilot study data

Figure (3.3) shows different percentages of verbal processes in two other disciplines, namely applied linguistics and medicine. There is a variety in the percentage of use of the verbal process. The percentage use of verbal verbs in the soft domain occupies a high rank, while in medicine articles, the percentage is lower than applied linguistics.

### **Relational verbs**

A relational process that refers to verb (be) or one of its synonyms. (am, is, are, have, has, had, belong) Adverbs of place and time (date back).

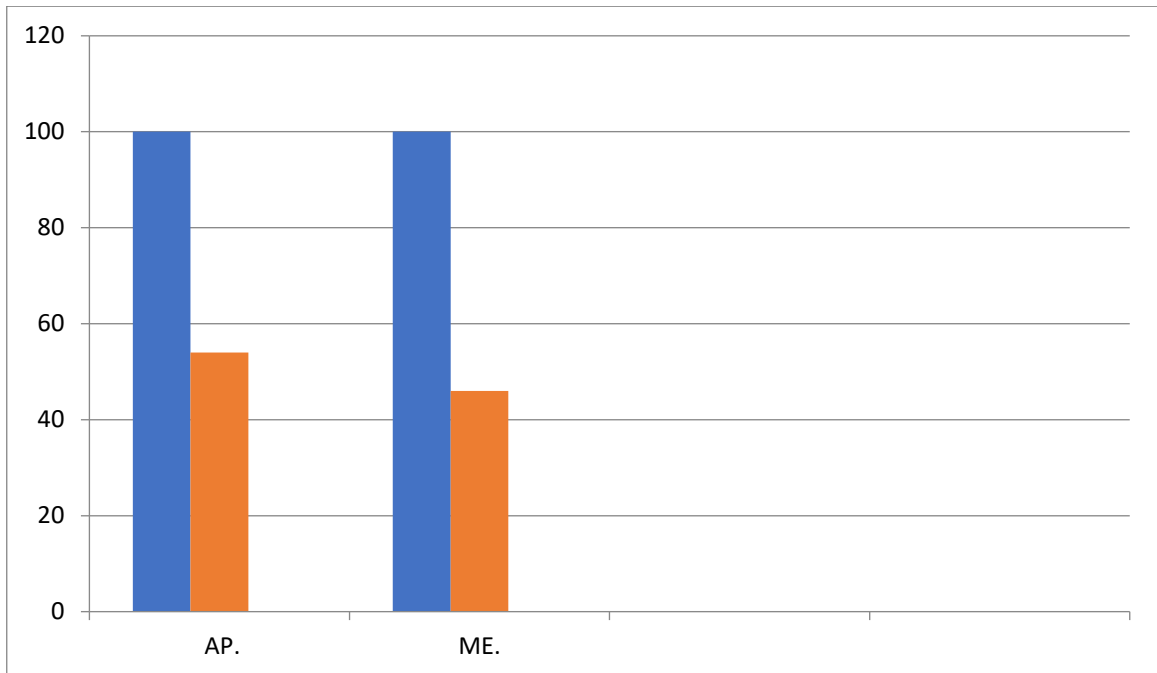
(e.g.) He should **have** a preventive approach and a broader understanding of patients' emotional, social, mental, spiritual, physical dimensions of human experience (patient-centered) (P.2/P.N 80/M.E ). Have is the relational verb.

**Table 3.10:** Relational processes in the literature review and introduction chapters of AL and ME

N0	Discipline	p.1	p.2	p.3	Total	Percentage
1.	AL.	11	26	17	44	54%

2.	ME.	15	10	12	37	46%
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The findings in Table (3.9) demonstrate the frequency of the relational process in hard and soft domains. There is a high frequency of relational processes in both domains, hard and soft. The following figure shows the percentages of use of the relational process.



**Figure(3.4):** percentage use of relational verbs in pilot study data

Figure(3.4) shows the percentage of use of the relational process in two disciplines. The findings revealed a high frequency of relational processes in a hard domain, whereas the frequency of previous categories (material, mental, verbal) is weak in the hard domain.

### Existential Process

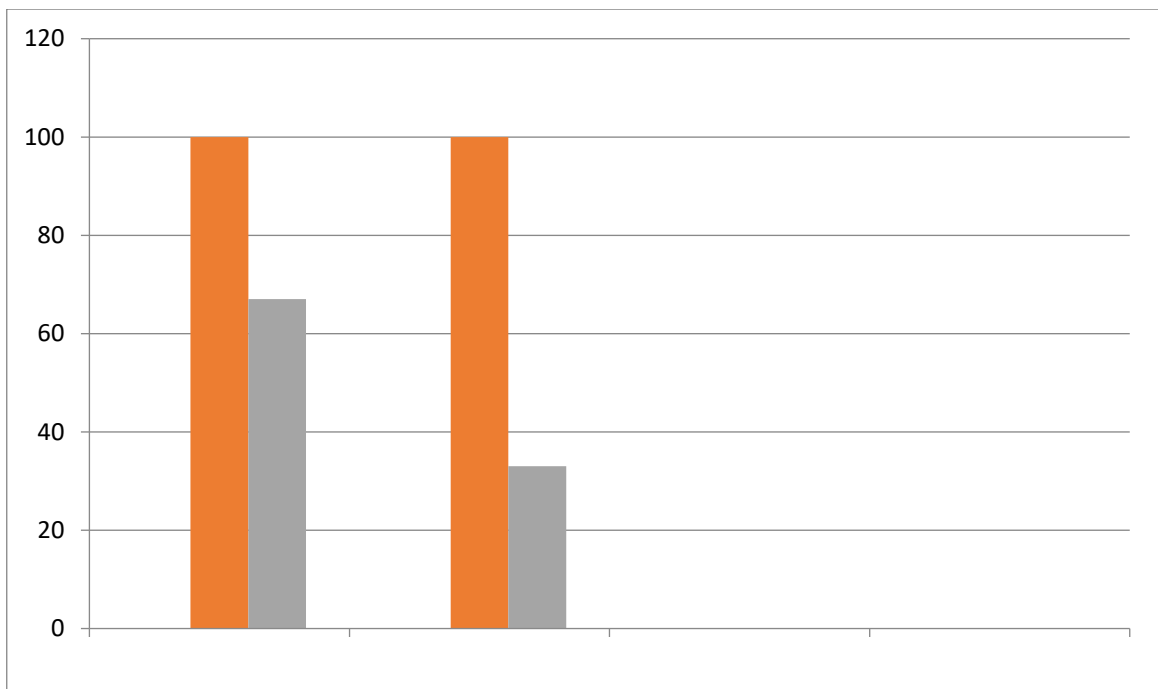
Existential verbs refer to something that happened. In a clause that includes existential (there), when using there, the clause needs a subject. ( there is, there are) also exist, be, arise.

(e.g.) Many terms can **be** interchangeably associated with the role-play teaching technique, and different ideas can **be** with and against when we compare role play with teaching methods. (p.864/AL). (be) is a relational process.

**Table 3.11:** Existential processes in the literature review and introduction chapters of AL and ME

N0	Discipline	p.1	p.2	p.3	Total	Percentage
1.	AL.	1	3	2	6	67%
2.	ME	0	0	3	3	33%

Table (3.11) describes the findings of a pilot study in the existential category of reporting verbs. In both disciplines, the frequency of existential is low. The following figure will illustrate the percentage of using existential verbs in two domains.



**Figure (3.5):** percentage use of existential verbs in pilot study data

Figure (3.5) shows the percentage of use existential category of reporting verbs. Applied linguistics percentage is higher than medicine in two domains, hard and soft. Behavioral verbs are not material or mental. These verbs are intermediate between the two. They refer to physiological and psychological behaviors like (notice, observe).

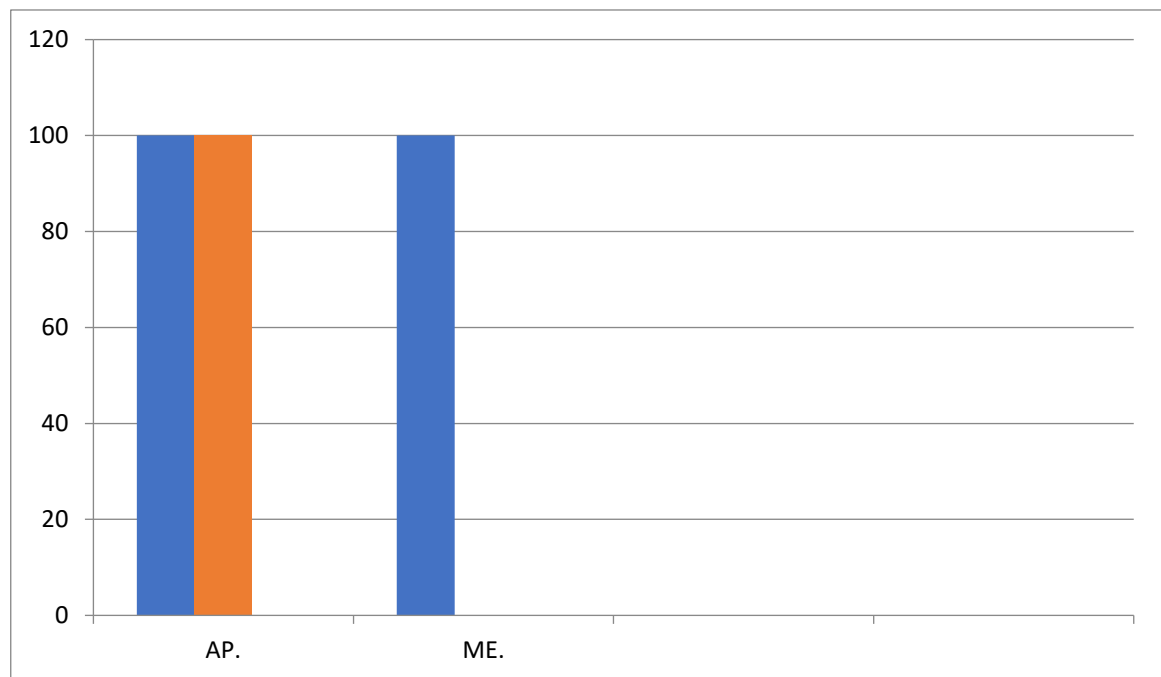


(e.g.), The researcher **noticed** that illocutionary acts are frequently used in CNN headlines besides linguistic devices. (p.3/AL/.P.N 51). (noticed) is a behavioral process.

**Table 3.12:** Behavioral processes in the literature review and introduction chapters of AL and ME

N0	Discipline	p.1	p.2	p.3	Total	Percentage
1.	AL.	0	1	1	2	100%
2.	ME.	0	0	0	0	0%

Table (3.11) shows the findings of the use of the behavioral process in the corpus of a pilot study. There is a difference in the frequency of behavioral verbs in hard and soft articles. Employing behavioral verbs is low. The following chart shows the use of the percentage of behavioral verbs:



**Figure( 3.6):** percentage use of behavioral verbs in pilot study data

Figure (3.6) shows different percentage use of behavioral verbs in two domains, hard and soft. The percentages of behavioral are low in these six articles.

Applied linguist articles representing the soft domain show a higher rate than medical articles representing the hard domain.

### **3.6 Trustworthiness (Validity, Reliability, Credibility)**

Trustworthiness is defined as a "set of standards that demonstrate that a research study has been conducted competently and ethically. Observing these standards convinces the reader that the investigation has merit and worth and that the results are credible and therefore potentially useful to guide further research and practice" (Heigham, 2009, p.264). A pilot study was conducted with six articles published in (Iraqi J. Comm. Med., July. 2019). After conducting the pilot study, the researcher observed that the theory is appropriate to analyze all types of reporting verbs, and the current research supports a systemic functional linguistic theory that belongs to famous Australian linguistics (Halliday & Matthiessen, 1985).

The use of reporting verbs in literature review and introduction sections of six articles from two different domains, medicine, and applied linguistics, were analyzed. All reporting verbs in the literature review and introduction sections were extracted and analyzed. The results have been sent to an expert to decide if the analyses were right or wrong.

### **3.7 Summary Of Chapter Three**

Chapter three presents eight sections, namely Research Design, Population (Sampling), Data Collection Method, Data Analysis Methods, (Pilot Study), Trustworthiness (validity, reliability, credibility), Ethical Considerations, and finally, Summary of the chapter.

## Chapter Four

### 4.1 INTRODUCTION

This study aims to find an answer to three main research questions:

1. What are the types of reporting verbs used in the research articles of the soft domain?
2. What are the types of reporting verbs used in the research articles of the hard domain?
3. What are the similarities and differences in Turkish authors' research articles of two different disciplines, hard and soft?

Analysis reporting verbs has been conducted on 80 research articles, 40 articles of which are hard domain, and the other 40 articles are from the soft domain. After that, the findings have been classified according to the classification of (Halliday & Matthiessen, 1985). The results are presented in the following sections, tables, charts for each discipline, and explanations under each chart are used.

### 4.2 Findings of Research Question One

The present study tries to find an answer for the main research questions:

1. What are the types of reporting verbs used in the research articles of the soft domain?

Answering the questions was done with 40 articles. All data was taken from the Turkish Degirpark Journals. The analysis revealed the following findings:

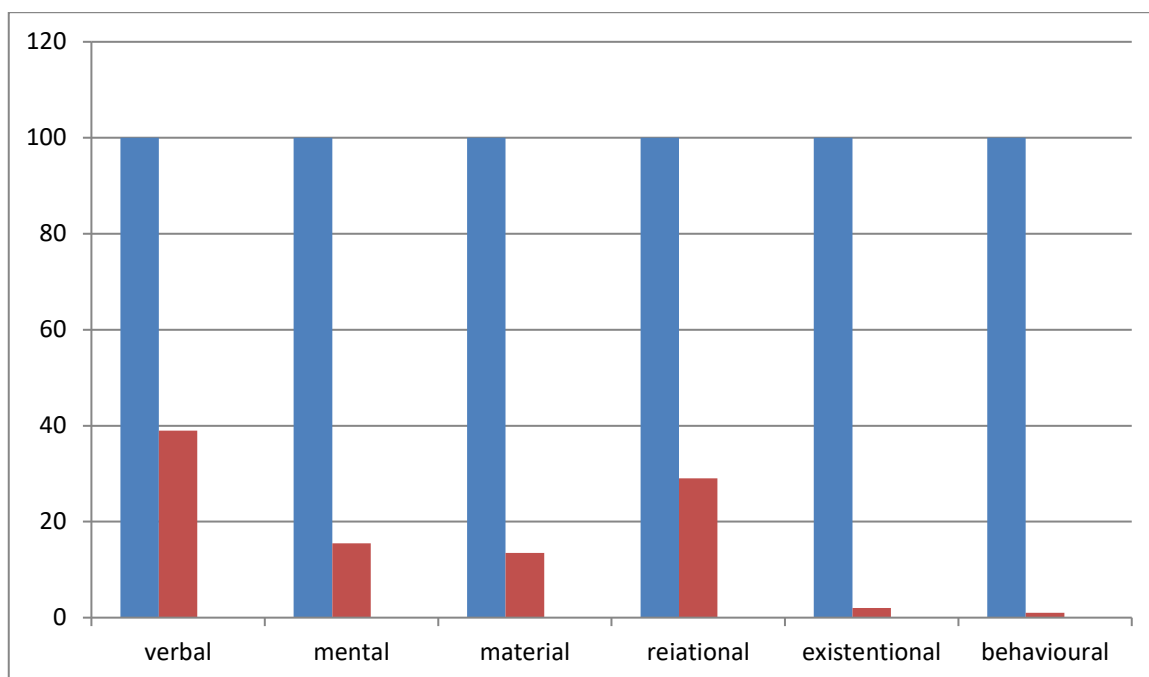
**Table 4.1:** Frequency and percentage of Reporting verbs in the literature review and introduction chapters of applied linguistics data

Article numbers	Discipline	Verbal	Mental	Material	Relational	Existential	Behavioral
Article 1	A.L	21	5	9	43	1	1

<b>Article 2</b>	<b>A.L</b>	<b>17</b>	<b>7</b>	<b>12</b>	<b>21</b>	<b>3</b>	<b>0</b>
<b>Article 3</b>	<b>A.L</b>	<b>41</b>	<b>1</b>	<b>10</b>	<b>29</b>	<b>2</b>	<b>0</b>
<b>Article 4</b>	<b>A.L</b>	<b>23</b>	<b>2</b>	<b>13</b>	<b>61</b>	<b>2</b>	<b>0</b>
<b>Article 5</b>	<b>A.L</b>	<b>52</b>	<b>7</b>	<b>21</b>	<b>12</b>	<b>1</b>	<b>2</b>
<b>Article 6</b>	<b>A.L</b>	<b>20</b>	<b>15</b>	<b>14</b>	<b>20</b>	<b>2</b>	<b>0</b>
<b>Article 7</b>	<b>A.L</b>	<b>31</b>	<b>23</b>	<b>9</b>	<b>18</b>	<b>0</b>	<b>0</b>
<b>Article 8</b>	<b>A.L</b>	<b>35</b>	<b>25</b>	<b>14</b>	<b>23</b>	<b>3</b>	<b>4</b>
<b>Article 9</b>	<b>A.L</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>
<b>Article 10</b>	<b>A.L</b>	<b>27</b>	<b>17</b>	<b>14</b>	<b>13</b>	<b>1</b>	<b>0</b>
<b>Total</b>	<b>10</b>	<b>268</b>	<b>105</b>	<b>93</b>	<b>199</b>	<b>15</b>	<b>5</b>
<b>percentage</b>		<b>39%</b>	<b>15.50%</b>	<b>13.50%</b>	<b>29%</b>	<b>2%</b>	<b>1%</b>

Table (4.1) The frequency and percentages of reporting verbs in ten articles

In the applied linguistics discipline, a variety and different use of reporting verbs across various categories are explicit. Verbal verbs occupied the first rank, followed by relational verbs. Mental verbs take the third position, followed by the material category. In contrast, relational and existential verbs take the last two classes. The next following section will present the percentage use of reporting verbs in the introduction section of applied linguistics articles.



**Figure 4.1:** percentages use of reporting verbs in introduction and literature review sections of applied linguistics

Table (4.1) illustrates the types and percentages of reporting verbs in the applied linguistics discipline; applied linguistics belongs to the soft domain, so verbal verbs occupy the highest rate followed by relational verbs, while behavioral verbs recorded the lowest percentage.

(e.g). who **investigated** secondary school teachers’ opinions about in-service training programs, although the teachers are quite positive about the importance of the training, they are not contented with the implementations (p.45/ L.R/ T.R). Investigated is the material verb.

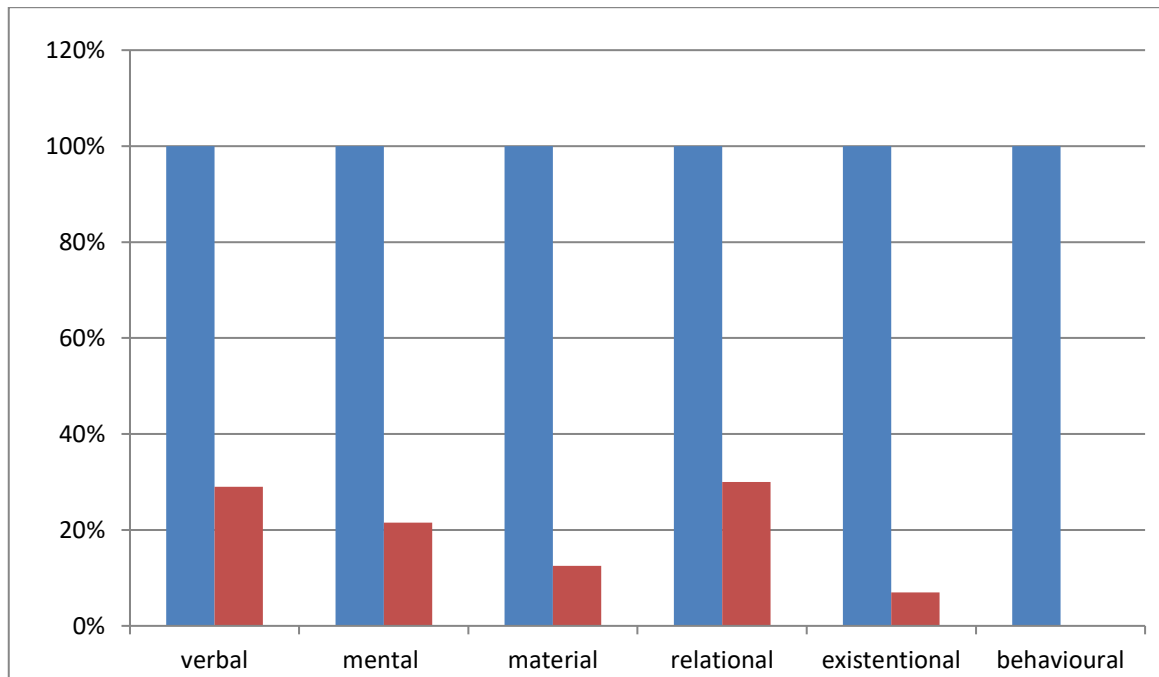
(e.g) Writing **is** a sociocultural process as much as it is a cognitive one, and a review of the literature indicates that collaborative Writing provides remarkable benefits for L2 writers. (p.132/L.R /T.R) The verb ( is ) called relational.

**Table 4. 2:** Frequency and percentage of reporting verbs in the literature review and introduction chapters of economic data

Article- No.	Discipline	Verbal	Mental	Material	Relational	Existential	Behavioral

Article 1	E.C	18	15	5	10	6	0
Article 2	E.C	3	3	4	7	2	0
Article 3	E.C	11	4	2	10	5	0
Article 4	E.C	6	10	1	12	1	0
Article 5	E.C	2	4	6	6	0	0
Article 6	E.C	19	12	12	22	8	0
Article 7	E.C	6	4	2	7	1	0
Article 8	E.C	18	6	7	12	0	0
Article 9	E.C	9	5	3	6	1	0
Article 10	E.C	11	13	4	14	1	0
<b>Total</b>	<b>10</b>	<b>103</b>	<b>76</b>	<b>45</b>	<b>106</b>	<b>25</b>	<b>0</b>
<b>Percentage</b>		<b>29%</b>	<b>21.50 %</b>	<b>12.50 %</b>	<b>30%</b>	<b>%7</b>	<b>0</b>

Table (4.2) illustrates the frequency of reporting verbs in ten articles of economic data. The findings reveal that the use of reporting verbs is different from article to article, from author to author, and also from domain to domain. In this table, the relational verbs occupy the first rank followed by the verbal category, and then the mental category takes the third rank. Material verbs are lower than mental verbs, while behavioral and existential are always in the last two classes; the following figure shows the percentage use of the six main categories.



**Figure (4.2):** percentage use of reporting verbs in the introduction and literature review sections of economic articles

Table (4.2) shows differences in the use of reporting verbs. This data uses 365 different reporting verbs in the introduction and literature review sections in the economic discipline. The chart above shows that verbal verbs have the highest percentage (29%), relational verbs have got (30%), followed by verbal verbs. Mental verbs recorded the following percentage (21.50), material, (12.50) while existential and behavioral have the lowest percentage.

The examples below show the use of reporting verbs in the economic domain.  
 Material verbs (1) We used the ethnographic method **to interview** people who had cognitive aspects of bribery transactions (p.1/E.C/T.R). Interview is material.  
 Verbal verbs (2) Berger **stated** that, unlike other social scientists, "sociologists cannot claim a specific empirical territory as their own. (p.82/EC./ T.R ).state is verbal.

Relational verb(3) Another antecedent of work engagement **is** the perception of organizational justice. (P.67/E.C/T.R). Verb (is) relational.

Mental verb (4) Sociological analyses on being a musician make use of macro-sociological perspectives, as their main objective is the study of the political economy

upon which its system is built and is **maintained**. In addition.(P.141/E.C/T.R). Maintained is a mental verb.

Existential (5) **there is** an ongoing discussion in many countries about the relationship between students' scores on standardized tests, students' socioeconomic status, and school characteristics. (p.43/E.C/T.R). (There is) is an existential verb.

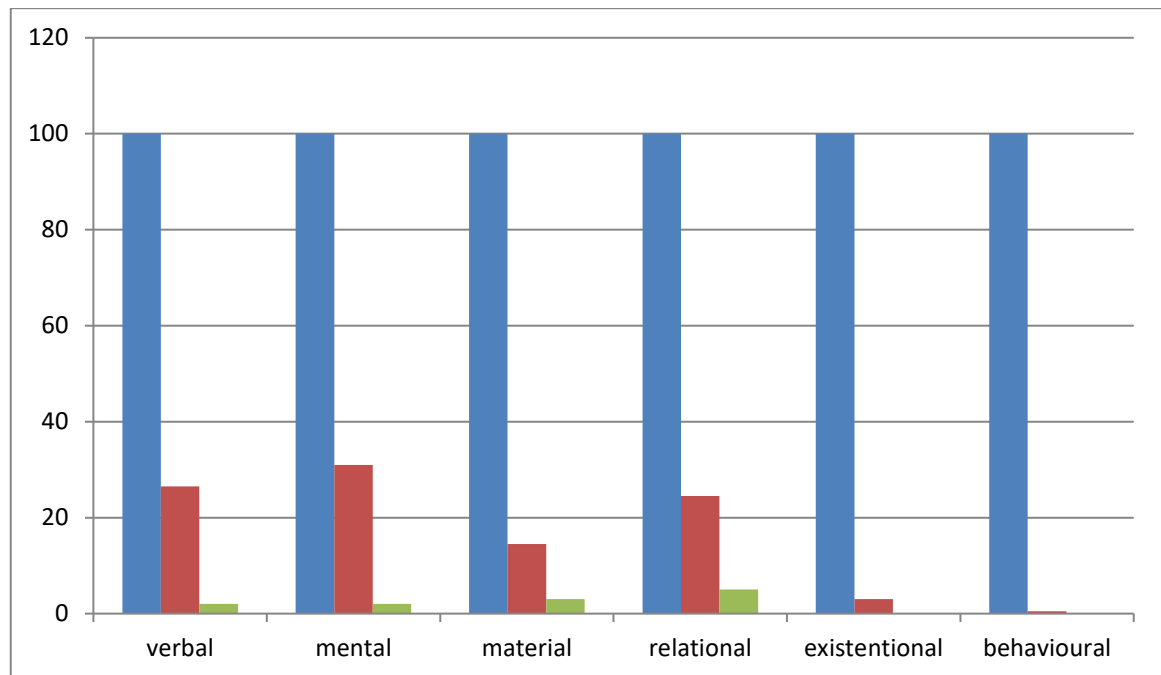
**Table 4.3:** Frequency and percentage of reporting verbs in the literature review and introduction chapters of English Language and literature data

Article- No.	Discipline	verbal	Mental	Material	Relational	Existential	Behavioral
Article 1	E.L.L	6	11	3	5	1	0
Article 2	E.L.L	1	7	3	10	1	0
Article 3	E.L.L	5	7	3	5	1	0
Article 4	E.L.L	6	9	8	2	0	0
Article 5	E.L.L	13	14	2	12	1	1
Article 6	E.L.L	13	10	3	7	1	0
Article 7	E.L.L	3	0	0	3	2	0
Article 8	E.L.L	5	3	1	3	0	0
Article 9	E.L.L	7	4	6	6	0	0
Article 10	E.L.L	4	9	5	6	0	0
<b>Total</b>	<b>10</b>	<b>63</b>	<b>74</b>	<b>34</b>	<b>59</b>	<b>7</b>	<b>1</b>
<b>Percentage</b>		<b>26.50%</b>	<b>31%</b>	<b>14.50%</b>	<b>24.50%</b>	<b>3%</b>	<b>0.50%</b>

Table (4.3) displays the use of reporting verbs in English Language and literature articles. The total number of reporting verbs in these articles is (238). This number is



not very far from the number used with economic discipline. Figure (4.3) demonstrates the frequency of reporting verbs and shows that mental verbs occupy number one, with the highest percentage (26%) followed by relational verbs (24.50%) while material verbs take the third rank (14.50%). The remaining other types occupy the lowest ranks Material (14.50) existential (3%) while the last and lowest percentage is behavioral (0.50%)



**Figure 4.3:** Percentage use of reporting verbs in the introduction section of English Language and literature articles

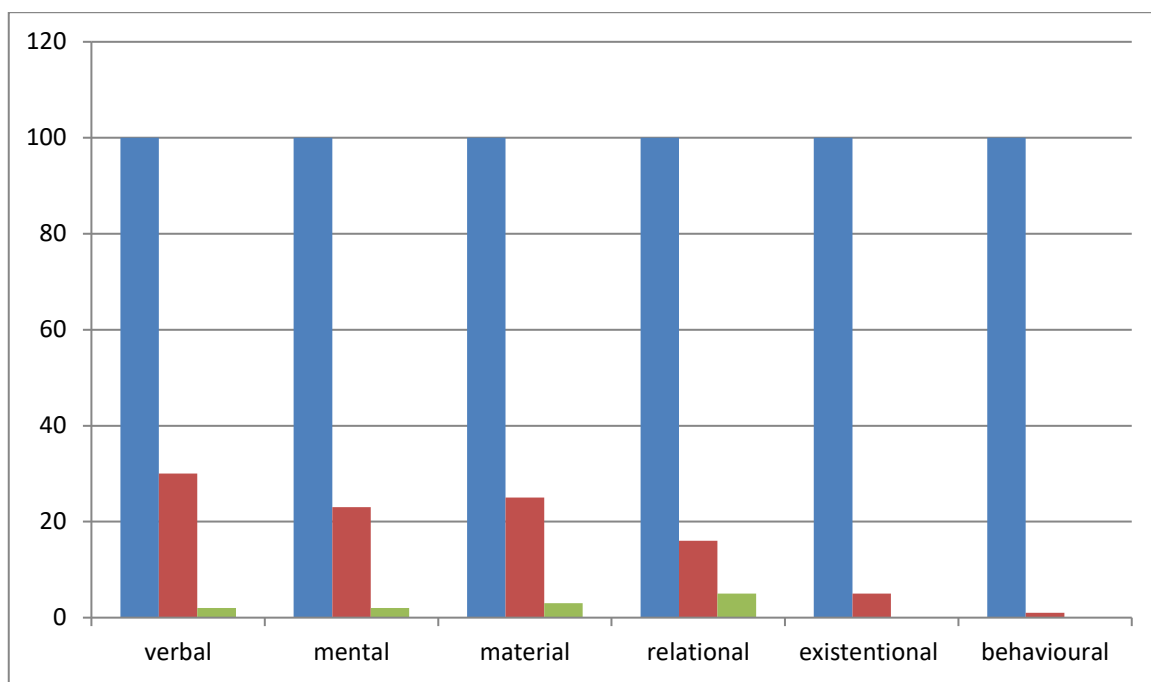
Figure (4.3) shows the percentage of use of reporting verbs in the introduction and literature review sections of English Language and literature articles. There are differences and similarities in the percentage use of reporting verbs in ten pieces. Three common categories obtain a high percentage while the other three categories occupy the lowest percentage.

**Table 4.4:** Frequency and percentage of Reporting verbs in the literature review and introduction chapters of Language teaching and Education research data

Article numbers	Discipline	verbal	Mental	Material	Relational	Existential	Behavioral

<b>Article 1</b>	<b>L.T.E</b>	<b>13</b>	<b>5</b>	<b>6</b>	<b>10</b>	<b>2</b>	<b>2</b>
<b>Article 2</b>	<b>L.T.E</b>	<b>12</b>	<b>9</b>	<b>7</b>	<b>6</b>	<b>4</b>	<b>1</b>
<b>Article 3</b>	<b>L.T.E</b>	<b>15</b>	<b>21</b>	<b>28</b>	<b>10</b>	<b>0</b>	<b>1</b>
<b>Article 4</b>	<b>L.T.E</b>	<b>15</b>	<b>13</b>	<b>10</b>	<b>4</b>	<b>1</b>	<b>1</b>
<b>Article 5</b>	<b>L.T.E</b>	<b>16</b>	<b>19</b>	<b>20</b>	<b>7</b>	<b>6</b>	<b>0</b>
<b>Article 6</b>	<b>L.T.E</b>	<b>26</b>	<b>11</b>	<b>9</b>	<b>27</b>	<b>5</b>	<b>1</b>
<b>Article 7</b>	<b>L.T.E</b>	<b>30</b>	<b>19</b>	<b>50</b>	<b>15</b>	<b>2</b>	<b>0</b>
<b>Article 8</b>	<b>L.T.E</b>	<b>31</b>	<b>21</b>	<b>26</b>	<b>6</b>	<b>6</b>	<b>2</b>
<b>Article 9</b>	<b>L.T.E</b>	<b>21</b>	<b>16</b>	<b>6</b>	<b>20</b>	<b>2</b>	<b>0</b>
<b>Article 10</b>	<b>L.T.E</b>	<b>30</b>	<b>25</b>	<b>12</b>	<b>4</b>	<b>4</b>	<b>0</b>
<b>Total</b>	<b>10</b>	<b>209</b>	<b>159</b>	<b>174</b>	<b>109</b>	<b>32</b>	<b>8</b>
<b>Percentage</b>		<b>30%</b>	<b>23%</b>	<b>25%</b>	<b>16%</b>	<b>5%</b>	<b>1%</b>

It can be noticed from Table (4.4) that the whole number of reporting verbs in this table is (691) verbs. It is a high number of reporting verbs because data in this domain contain introduction and literature review, so the number of reporting verbs increases. According to the results above, those verbal verbs occupy the first rank (30%), followed by material verbs which record (25%). Mental verbs take the third rank recording the following percentage (23%) followed by relational verbs (16%), existential verbs (5%), and the last rank is behavioral verbs (1%). The chart below shows the use of reporting verbs in Language teaching and Education research discipline.



**Figure 4.4:** percentage use of reporting verbs in the introduction section of

Language teaching and education research articles

In Figure(4.4), the percentage use of reporting verbs is different. All categories are available but in different numbers. In these ten articles, the verbal type gets the highest percentage, followed by material then mental. Relational verbs get the fourth rank, whereas existential and behavioral occupy a low rate. The next group presents examples for each category of reporting verbs.

(1) Songs **are** instrumental during the development stages of a child as they help the body and mind work together. (p.103/L.T.E). (Are) is the relational verb.

(2) On the other hand, writing has been **observed** as challenging. (P.22/L.T.E ). Observed is the behavioral verb.

(3) The results **indicated** that students in the CLIL group achieved higher scores in IELTS, and the teachers **found** to challenge their students in the CLIL group with a higher level of difficulty text in the classroom. (p.103/LTE). (indicate, found) are verbal verbs.

(4) There were studies investigating the impact of CLIL instruction on learners' reading Comprehension. For example, Skogen (2013) compared CLIL and traditional EFL (English as Foreign Language) instruction for tenth-grade students with regards to their reading comprehension and analyzed data collected through IELTS (International English Language Testing System) test, questionnaires, and interviews with teachers and students. (P.103 /L.T.E). Investigating is a material verb.

(5) There is a necessity for more studies examining the quality of teacher education from the teacher candidates' stand in a more holistic way. (P.138/L.T.E). (There is) is the existential verb.

(6) meaning that children do not actually know the grammatical structure within these chunks, but they can still engage in meaningful language use thanks to these chunks. (P.20/L.T.E). Know is a mental verb.

**Table 4.5:** Percentages of the reporting verbs in the research articles of the soft domain

NO.	Journal name	Verbal	mental	Material	Relation	Existen	Behavioral
			al		al	tial	
1.	<b>EJAL Eurasian Journal of Applied Linguistics</b>	<b>39%</b>	<b>15.50 %</b>	<b>13.50%</b>	<b>29%</b>	<b>2%</b>	<b>1%</b>
2.	<b>Eurasian Journal of English Language and Literature</b>	<b>26.50 %</b>	<b>31%</b>	<b>14.50%</b>	<b>24.50%</b>	<b>3%</b>	<b>0.50%</b>
3.	<b>Language</b>	<b>30%</b>	<b>23%</b>	<b>25%</b>	<b>16%</b>	<b>5%</b>	<b>1%</b>

	<b>Teaching and Educational Research</b>						
4.	<b>Journal of Economy Culture and Society</b>	<b>29%</b>	<b>21.50 %</b>	<b>12 .50 %</b>	<b>30%</b>	<b>%7</b>	<b>0%</b>

Table (4.5) shows the percentage of (40) articles and the variety of percentages. According to the percentages shown in table (4.5), mental and verbal verbs get the highest rates compared with other categories of verbs. In the soft domain, the writer emphasizes the author's role and concentrates on the persons and their thoughts more than the findings.

### 4.3 Findings of Research Questions Two

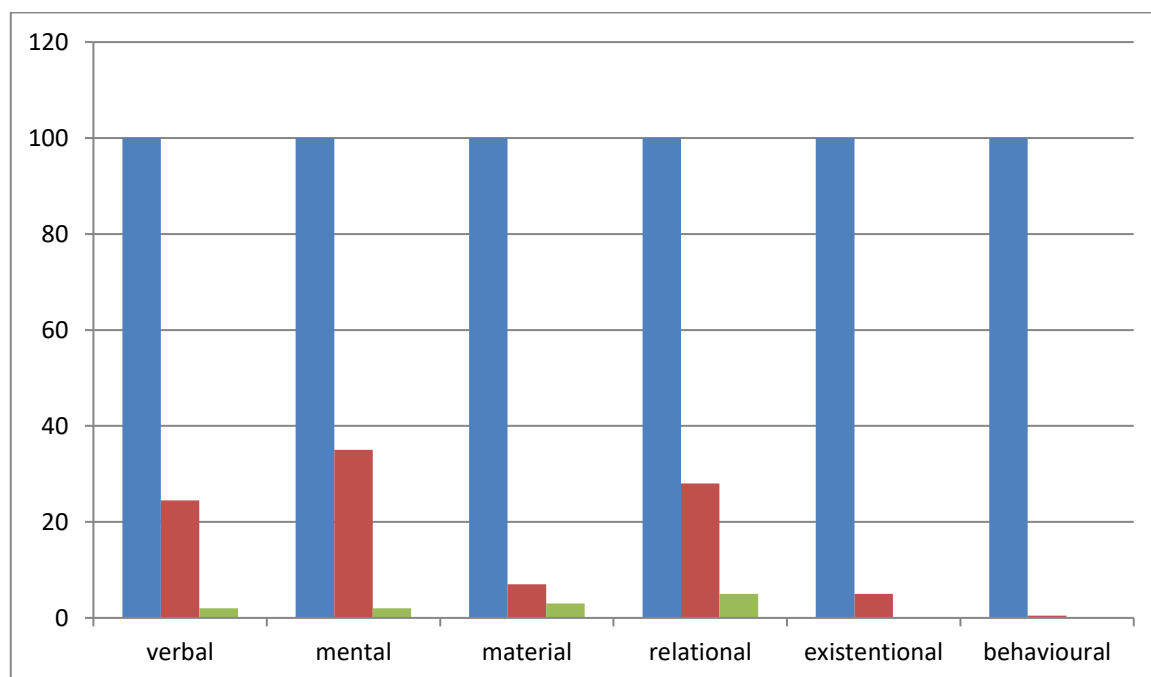
2. What are the types of reporting verbs used in the research articles of the hard domain?

The following tables and charts show the frequency of reporting verbs in the hard domain. The total number of these articles in this domain is forty articles. Each ten articles belong to specific disciplines, like medicine, nursing, chemical engineering, and chemistry. These tables calculate the total number of reporting verbs used in the literature review and introductions of these groups of articles.

**Table 4.6:** Frequency and percentage of reporting verbs in the literature review and introduction chapters of medicine data

<b>Article numbers</b>	<b>Discipline</b>	<b>verbal</b>	<b>Mental</b>	<b>Material</b>	<b>Relational</b>	<b>Existential</b>	<b>Behavioral</b>
<b>Article 1</b>	<b>M. E</b>	<b>4</b>	<b>9</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>0</b>
<b>Article 2</b>	<b>M. E</b>	<b>8</b>	<b>12</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>0</b>
<b>Article 3</b>	<b>M. E</b>	<b>6</b>	<b>15</b>	<b>4</b>	<b>7</b>	<b>1</b>	<b>0</b>

<b>Article 4</b>	<b>M. E</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>
<b>Article 5</b>	<b>M.E</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>1</b>
<b>Article 6</b>	<b>M.E</b>	<b>7</b>	<b>10</b>	<b>3</b>	<b>12</b>	<b>0</b>	<b>0</b>
<b>Article 7</b>	<b>M.E</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>0</b>
<b>Article 8</b>	<b>M.E</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>6</b>	<b>0</b>	<b>0</b>
<b>Article 9</b>	<b>M.E</b>	<b>4</b>	<b>10</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>0</b>
<b>Article 10</b>	<b>M. E</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>
<b>Total</b>	<b>10</b>	<b>52</b>	<b>75</b>	<b>15</b>	<b>60</b>	<b>9</b>	<b>1</b>
<b>percentage</b>		<b>24.50%</b>	<b>35%</b>	<b>7 %</b>	<b>28%</b>	<b>5%</b>	<b>0.50%</b>



**Figure 4.5:** Percentage use of reporting verbs in the introduction section of medicine articles

Table (4.5) indicates the total number of reporting verbs used in this corpus is 212 verbs and that the number in this data is lower than the number of verbs in the soft domain. Thus this domain is different from others. The medicine belongs to the hard

domain, so the writer focuses on the information itself and does not care about the author's name. Figure (4.5) illustrates that mental verbs took the first rank(35%) and are considered the highest percentage in this chart. Relational verbs get a second rank recording the following rate (28%) followed by verbal or discourse verbs (24.50%), followed by the existential verbs (5%), while behavioral verbs occupy the last rank (0.50%). The next examples below show the use of reporting verbs in the medical discipline.

(1) Healthcare-associated infections (HCAIs) **are** major public health problems throughout the world. (p.67/ ME). (are) is the relational verb.

(2) Autism is **considered** as a neurodevelopmental condition interfering with the person's ability to communicate and relate to others (P.90/ME). (considered) is a mental verb

(3) Partial recovery is generally **observed** during hospitalization, and unilateral infarcts have been **reported** to **have** a better prognosis. (p.104/ME) (observed) is a behavioral verb. (Reported) is verbal. ( Have) is relational.

(4) The anti-cancer activity of betulinic acid was **investigated** in 60 drug-resistant cell lines in a single array study, **including** ACHN and CAKI-1, one of the kidney cancer cell lines. Saeed et al.(p.114/ME ). (Investigate) is material. (including) is relational.

(5) **There are** delays in diagnosing cancer in childhood. (p.119/ME ).

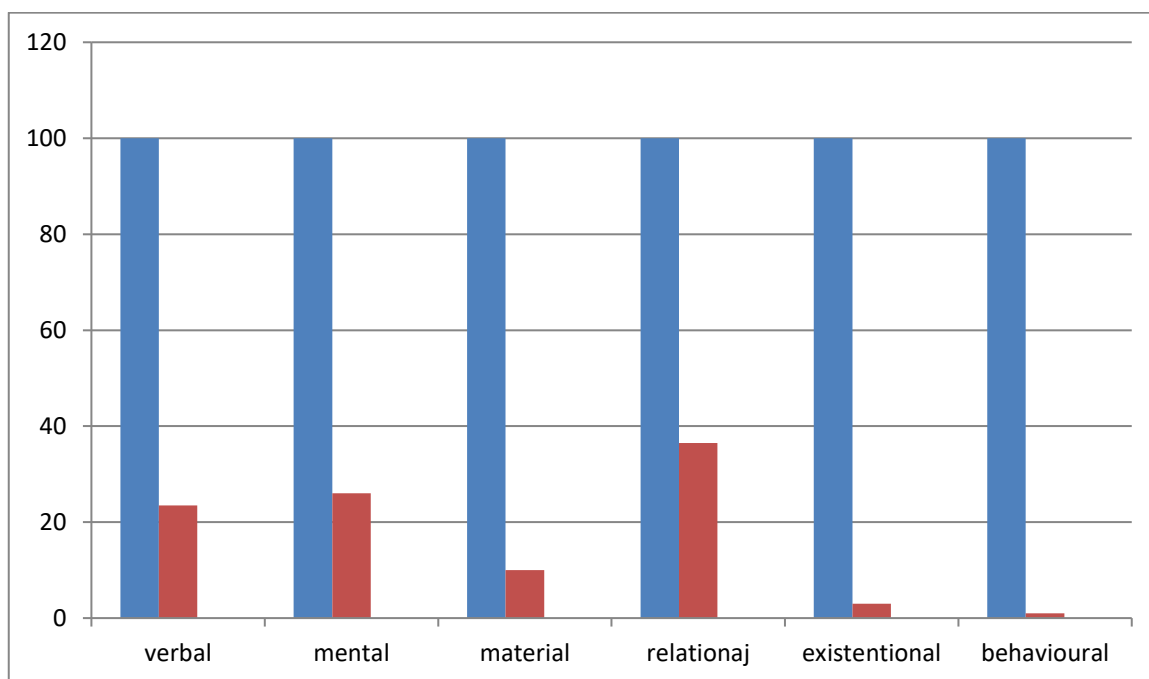
( There are) is an existential verb.

(6) These competencies will be **mentioned** as reading, understanding, and filling competencies for convenience hereafter. (P.62/ME). (Mentioned) is a verbal verb.

**Table 4.7:** Frequency and percentage of reporting verbs in the literature review and introduction chapters of nursing data

Article- No.	Discipline	verbal	Mental	Material	Relational	Existential	Behavioral
Article 1	N.U	6	7	1	9	0	0
Article 2	N.U	9	4	0	5	0	0

<b>Article 3</b>	<b>N.U</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>1</b>
<b>Article 4</b>	<b>N.U</b>	<b>8</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>1</b>
<b>Article 5</b>	<b>N.U</b>	<b>7</b>	<b>4</b>	<b>1</b>	<b>8</b>	<b>3</b>	<b>0</b>
<b>Article 6</b>	<b>N.U</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>
<b>Article 7</b>	<b>N.U</b>	<b>8</b>	<b>13</b>	<b>6</b>	<b>13</b>	<b>0</b>	<b>0</b>
<b>Article 8</b>	<b>N.U</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>3</b>	<b>0</b>
<b>Article 9</b>	<b>N.U</b>	<b>4</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>0</b>	<b>0</b>
<b>Article 10</b>	<b>N.U</b>	<b>1</b>	<b>9</b>	<b>1</b>	<b>17</b>	<b>1</b>	<b>0</b>
<b>Total</b>	<b>10</b>	<b>54</b>	<b>60</b>	<b>23</b>	<b>84</b>	<b>7</b>	<b>2</b>
<b>percentage</b>		<b>23.50%</b>	<b>26%</b>	<b>10%</b>	<b>36.50%</b>	<b>3%</b>	<b>1%</b>



**Figure 4.6:** Percentage use of reporting verbs in the introduction section of nursing articles



Table (4.6) is similar to other tables, but the total of verbs is different. The total number of verbs in nursing data is 240 verbs. Figure (4.6) illustrates the percentage of use. In this figure, it is clear that relational verbs number is increasing getting high percentages to reach (36.50%) followed by the mental category (26%), whereas verbal verbs occupy the third rank (22.50%). Material verbs in nursing data come in the last three positions (10%), followed by existential verbs. Behavioral verbs recorded a low percentage (1%). The next examples are from nursing data.

(1) Rotator cuff syndrome (RMS) **is** among the most common causes of shoulder pain (p.13/N.U).verb (is) is relational.

(2) The World Health Organization **defines** reproductive health as having a satisfactory and safe sexual life. (P.57/N.U ). define is verbal.

(3) Partial recovery is generally **observed** during hospitalization, and unilateral infarcts have been reported to have a better prognosis. (P.104/ N.U).observed is behavioral.

(4) The physician who is asked to prepare a judicial report is obliged to **fulfill** this duty as an expert(P.83/N.U ). fulfill is the material verb.

(5) COVID-19 is not **considered** to be more contagious in pregnant women. Intrauterine passage of the virus to the fetus and congenital infection has not been proven yet since no adequate data could be obtained. (P.52/N.U ). Consider is mental.

(6) Normal transit time depends on the normal bowel habits of people, and in normal transit time, **there is** defecation once a day or at least three times a week. (P.6/N.U) (there is) is an existential verb.

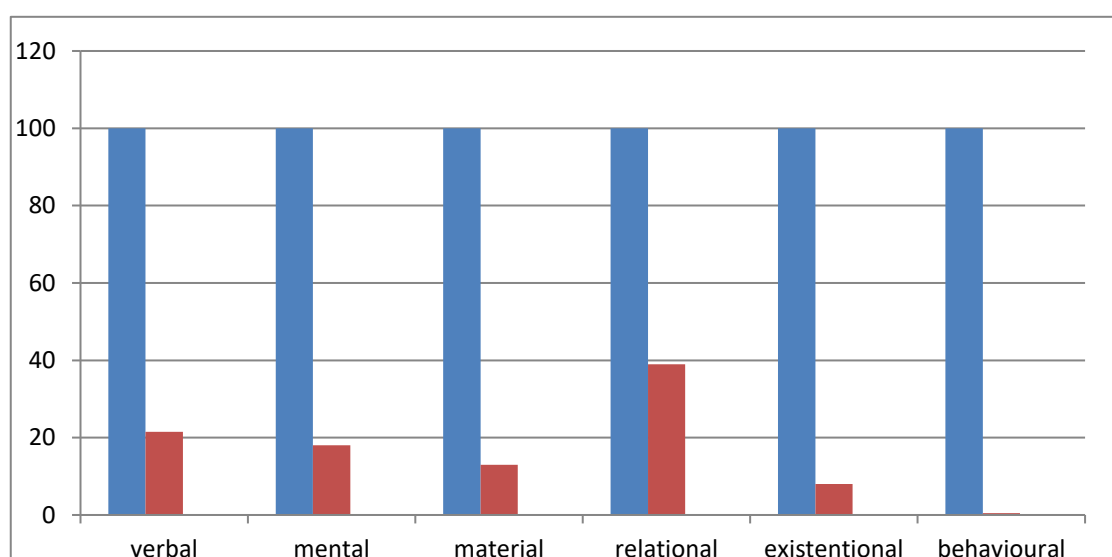
**Table 4.8:** Frequency and percentage of reporting verbs in the literature review and introduction chapters of chemical engineering data

Article numbers	Discipline	verbal	Mental	Material	Relational	Existential	Behavioral
Article 1	C.E	7	2	2	11	0	0
Article 2	C.E	8	9	3	9	1	0

<b>Article 3</b>	<b>C.E</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>8</b>	<b>2</b>	<b>1</b>
<b>Article 4</b>	<b>C.E</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>10</b>	<b>1</b>	<b>0</b>
<b>Article 5</b>	<b>C.E</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>17</b>	<b>1</b>	<b>0</b>
<b>Article 6</b>	<b>C.E</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>0</b>
<b>Article 7</b>	<b>C.E</b>	<b>3</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>2</b>	<b>0</b>
<b>Article 8</b>	<b>C.E</b>	<b>6</b>	<b>3</b>	<b>4</b>	<b>18</b>	<b>7</b>	<b>0</b>
<b>Article 9</b>	<b>C.E</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>9</b>	<b>4</b>	<b>0</b>
<b>Article 10</b>	<b>C.E</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>0</b>
<b>Total</b>		<b>54</b>	<b>45</b>	<b>33</b>	<b>100</b>	<b>20</b>	<b>1</b>
<b>Percentage</b>		<b>21.50%</b>	<b>18%</b>	<b>13%</b>	<b>39 %</b>	<b>8%</b>	<b>0.50%</b>

The above (**Table 4.8**) exhibits the total number of reporting verbs used in chemical engineer articles.

The total number of verbs is (253). This value is comparable to that of other tables in the hard domain.



**Figure 4.7:** Percentage use of reporting verbs in the introduction section of chemical engineering articles

The number of relational verbs is the highest which means that relational verbs in the hard field have been used more than different categories of verbs. The percentage of relational verbs is (39%) followed by verbal verbs ( 21.50%). Mental verbs occupy the third rank (18%). Material verbs are lower than mental, so they occupied the fourth rank. The fifth rank comes from a percentage of existential verbs (8%), and the last class always comes from a share of behavioral verbs. The examples below are from chemical engineering data.

(1) Discrete-time controller accuracy and speed **have** importance in industrial applications. (p.29/C.E/ ). Have is a relational verb.

(2) When the density values were compared, it was **seen** that data were obtained between 0.41 and 0.48 g/cm<sup>3</sup>. (p.88/C.E/ ). Seen is a mental verb.

(3) The drying process could be **defined** as the progress of removal of moisture via simultaneous heat and mass transfer between the sample and the surrounding atmosphere using vaporization. defined is verbal. (p.10/C.E ).

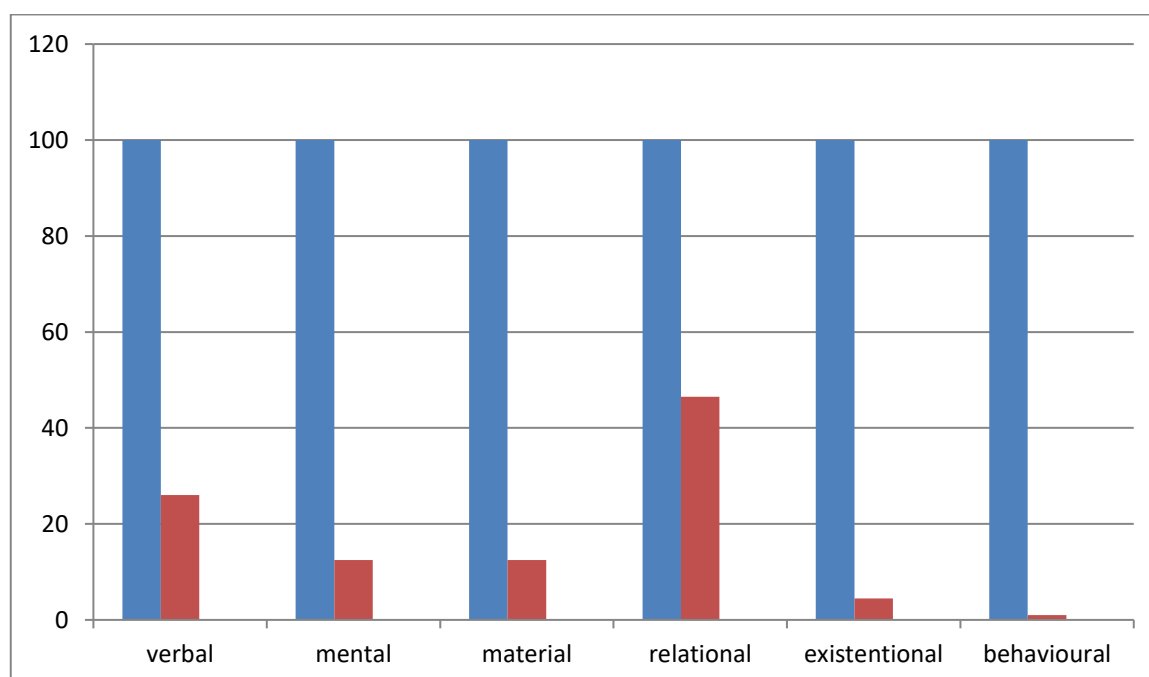
(4) Many of these parameters have been extensively **studied** for Y-zeolite. (P.69/C.E) Verb studied is material.

(5) **There are** several studies based on the production of gas ceramics. Those studies focused mainly on the effects of compression strength and density of gas ceramic manufacturing. (P.88/EC) (There are) is existential.

Table 4.9: Reporting verbs in the literature review and introduction chapters of biology

Article numbers	Discipline	verbal	Mental	Material	Relational	Existential	Behavioral
Article 1	BIO.	4	5	3	9	0	0
Article 2	BIO.	6	6	0	13	1	0
Article 3	BIO.	12	27	8	15	0	0

<b>Article 4</b>	<b>BIO.</b>	<b>8</b>	<b>8</b>	<b>4</b>	<b>15</b>	<b>4</b>	<b>0</b>
<b>Article 5</b>	<b>BIO.</b>	<b>15</b>	<b>7</b>	<b>8</b>	<b>25</b>	<b>0</b>	<b>0</b>
<b>Article 6</b>	<b>BIO.</b>	<b>8</b>	<b>7</b>	<b>1</b>	<b>11</b>	<b>0</b>	<b>1</b>
<b>Article 7</b>	<b>BIO.</b>	<b>7</b>	<b>1</b>	<b>4</b>	<b>10</b>	<b>0</b>	<b>0</b>
<b>Article 8</b>	<b>BIO.</b>	<b>13</b>	<b>11</b>	<b>0</b>	<b>32</b>	<b>5</b>	<b>0</b>
<b>Article 9</b>	<b>BIO.</b>	<b>10</b>	<b>4</b>	<b>5</b>	<b>15</b>	<b>2</b>	<b>0</b>
<b>Article 10</b>	<b>BIO.</b>	<b>5</b>	<b>13</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>0</b>
<b>Total</b>		<b>88</b>	<b>42</b>	<b>34</b>	<b>156</b>	<b>14</b>	<b>1</b>
<b>percentage</b>		<b>26%</b>	<b>12.50%</b>	<b>10%</b>	<b>46.50%</b>	<b>4.50%</b>	<b>0.50%</b>



**Figure 4.8:** Percentages use of reporting verbs in the introduction section of biology articles

It can be revealed through Table (4.9) that the total number of reporting verbs used in this section reaches (335) verbs in the biology corpus. Figure (4.8) illustrates relational verbs in the first rank again with a high percentage of use (24.50%). Verbal

verbs get the second rank with a rate reaching (26%) followed by mental verbs, which occupy the third rank with a percentage reaching (12.50%). Material verbs occupy the fourth rank with a percentage that reaches (10%). Existential verbs take fifth place with a percentage reaching (4.50%). Finally, behavioral verbs recorded the lowest percentage reaching (0.50%). The next examples below show the use of reporting verbs from the biology corpus:

(1) Heavy metal contamination in sediments **is** a matter of environmental concern because of their non-degradable, toxic, and persistent features (p.202/B.I ). (is) relational verb.

(2) It is **known** that the side effects of active substances obtained from plants are less than those obtained by chemical synthesis. Therefore, the use of the active substances industry has gained importance in recent years. (P.263 /B.I ). known is mental.

(3) Therefore, in this research, the effects of some modulator times and types on the physiological and biochemical traits of cotton under saline conditions were **investigated** (P.302/BIO. ). Investigate is material.

(4) **There are** numerous successful biological control experiments carried with B.(P.214./BIO). (there are ) is existential.

(5) It is also **stated** that galanthamine was present in the leaves of the plant as an important source. (P.264/BIO ). The state is verbal.

**Table 4.10:** The percentage of the reporting verbs in the research articles of the journal in the hard domain

NO .	Journal name	verba l	mental	Materi al	relational	Existential	behavioral
1	Marmara Medical Journal.	24.50 %	35%	7%	28%	5%	0.50%
2	Medical Records- International Medical Journal	23.50 %	26%	10%	36.50%	3%	1%
3	Journal of The	21.50	18. %	13%	39 %	8%	0.50%

	<b>Turkish Chemical SOCIETY</b>	<b>%</b>					
<b>4</b>	<b>COMMUNICATIONS SERIES C</b>	<b>26%</b>	<b>12.50%</b>	<b>10%</b>	<b>46.50%</b>	<b>4.50%</b>	<b>0.50%</b>

The findings in Table (4.10) show that relational verbs get the first rank followed by verbal, mental material, while behavioral and existential get a lower percentage. Hard domain findings showed that writers in the hard domain ignore the role of the author and concentrate on results. In this table, the percentage use of 40 articles is from the hard domain with four disciplines, namely medicine, nursing, chemical, and biology.

### 4.3: Findings of Research Question Three.

3. What are the similarities and differences in Turkish authors' research articles of two different disciplines, hard and soft?

The third research question is a comparison between two domains after checking the frequency of reporting verbs in all data and calculating them with the percentage use of each category of verbs rather than other categories of verbs. The findings reveal that all the categories are available, but the numbers of reporting verbs are different and general in both domains. The following table exhibits the difference between the two domains.

**Table 4.11:** Differences and similarities percentages of reporting verbs categories in hard and soft domains

NO.	Verbs	M J. (Hard)	IMJ. (Hard)	C.E. (Hard)	BIO. (Hard)	AL ( soft)	E.L.L ( soft)	L.T.E soft)	E.C ( soft)
1.	Verbal	24.5%	23.50%	21.50%	26%	39%	26.5	30%	29%
2.	Mental	35%	26%	18. %	12.50%	15.50%	31%	23%	21.50%
3.	Material	7%	10%	13%	10%	13.50%	14.50%	25%	12.50%

4.	Relational	28%	36.50%	39%	46.50%	29%	24.50%	16%	30%
5.	Behavioral	0.50%	1%	0.50%	0.50%	1%	0.50%	1%	0%
6.	Existential	5%	3%	8%	4.50%	2%	3%	5%	7%

Table (4.11) shows common similarities and differences in the findings in both disciplines. The six categories of verbs are available in the hard and soft domains, but there are various percentages and frequencies of reporting verbs. Also, according to the rates, there are four common categories mental, material, verbal and relational, which have a high frequency. In contrast, the remaining categories of behavioral and existential are of less use. In the oral category, the findings revealed that there is a similarity in percentages. Verbal verbs occupied the second rank in both domains, hard and soft. In the soft domain, it occupies the second rank after mental, whereas in the hard domain, it obtains a second rank after relational verbs.

The second category is mental verbs. The frequency of mental verbs in a soft domain is higher than the frequency in the science domain. Material verbs are also like mental verbs in percentages of use in which the hard field increases the use of reporting verbs more than the soft domain. The fourth category is relational. Relational verbs findings reveal that the category is different from the previous categories. Relational verbs frequency in the hard field is higher than the frequency in the soft domain. The rest of the categories, existential and behavioral, get low ranks in both disciplines.

**Table 4.12:** Results of all journals in hard and soft domains for frequency of reporting verbs

Verbs	M J. (Hard)	IMJ. (Hard)	C.E. (Hard)	BIO. (Hard)	AL (.soft)	E.L.L (.soft)	L.T.E (.soft)	EC.	Total
verbal	52	54	54	88	268	63	209	103	891
mental	75	60	45	42	105	74	159	76	636

Material	15	23	33	34	93	34	174	45	451
Relational	60	84	100	156	199	59	109	106	873
Behavioral	9	7	20	14	15	7	32	25	129
existential	1	2	1	1	5	1	8	0	19
total	212	230	253	335	685	238	691	355	2999

Table (4.12) shows the total reporting verb frequencies in both domains. Discourse verbs in the humanity domain occupy a higher rank than the domain of Science. The number of verbs in the science domain is always less than the number in the soft, clear from Table (4.3.3). There is a difference in the use of mental verbs in the two mentioned domains. The number of mental verbs in the soft domain is higher than that of reporting verbs in the hard field. The third category of verbs is material verbs. The results of this category are similar to the two previous types. There is a variety in the use of reporting verbs, and also, the number of reporting verbs in the soft domain increases while in the science domain, the number of verbs decreases. Results of the fourth category are different from the three previous types in which relational verbs are available in the science domain.

The number of reporting verbs in the soft domain decreases. There is a big difference in the use of relational verbs in the data of the current study. The frequency of reporting verbs in the last two categories, behavioral and existential, is weak in both domains. The frequency of existential and behavioral verbs is available in hard and soft articles but is scarce. Generally, the soft domain has more frequency of reporting verbs than the hard domain. In soft domains, the name of the author supports the citation and gives the citation more credibility. If the author is famous, the concentration will be on the author's name more than the containing citation, whereas it is the opposite in the hard domain. Writers do not care about the name of the author, and all the concentration on information in the citation. Thus, the soft domain has the name of authors more than the science domain, and each author's character needs a reporting verb to convert the information from previous studies to current studies.



#### **4.4 Summary of Chapter Four**

This segment highlighted the findings from a review of 80 published papers. They were submitted by 80 Turkish authors in eight different disciplines in Dergipark Journals, in two corpora, soft and hard domains. The findings are collected, discussed, and compared for each corpus separately. Although the corpus in this research is small, the present study provides an overview of reporting verbs in these articles. After comparing all the soft data, the most frequent verbs are mental, material, and verbal. These categories recorded a high percentage while in the hard domain, it can be noticed that relational verbs occupy the highest percentages in reporting verbs.

## Chapter Five

### 5.1 Conclusion

The current study investigated reporting verbs in research articles written by Turkish authors across eight disciplines. The findings show that there are certain commonalities and discrepancies within the eight disciplines. One of the commonalities is a high frequency of relational reporting verbs in both domains, hard and soft. On the other hand, the decrease of behavioral verbs in these domains has been mentioned before. Soft domain writers use all reporting verbs more often than hard domain writers. The study also demonstrates that previous studies classify reporting verbs into three main groups, whereas this study illustrates six significant types of reporting verbs, as shown above. This study includes a different and wide range of Turkish published journals from eight disciplines and is conducted in two parts (introduction and literature review of the articles).

### 5.2 Discussion

The present study identifies the reporting verbs and explores the process 'verbs' in introduction and literature review chapters of eighty published articles in both disciplines, hard and soft, by Turkish authors. Halliday's (1985) theory is the central taxonomy for analyzing reporting verbs in these sections. Although there is a big difference between the hard and soft domains, there are similarities in the findings. The present study's results reveal a high percentage and density for relational verbs in the soft and hard relational verbs. As Jalilifar et al (2017) mentioned, behavioral and existential processes recorded the lowest percentage in hard and soft domains

The possible effect of the mother tongue and unawareness of using the reporting verbs in the different disciplines can affect the non-native postgraduates' performance. The realized variations in the employment of certain features, such as nominal groups in hard and soft sciences textbooks, can be pedagogically inspiring, with insufficient knowledge of using reporting verbs in a proper place.

One of the results of this study supports Charles (2006) as Uba (2020) states that the use of reporting verbs varies by discipline. As mentioned above, the results revealed frequencies of reporting in the soft domain higher than frequencies of

reporting verbs in the hard domain. Furthermore, Applied linguistics, Economics, Language Teaching, Educational Research, and Eurasian Journals of English Language and Literature have the most frequent reporting verbs more than the pattern of journals of Engineer, Medicine, Nursing, and Chemical Engineering.

Uba (2020) mentions that in the science domain that authors always use different symbols, formulas, and images separate from the humanities domain; this could be considered one of the main reasons to use a low number of reporting verbs. When it comes to reporting verbs' semantic divisions, just eight verbs had been given by Thompson and Ye (1991). However, six types of verbs have been identified in this study: mental, material, verbal, relational, existential, and behavioral. Writers usually use one of the six groups for whatever we are going to report.

### **5.3 Implications of the study**

The findings of the current study could be used for English teachers, especially for textbook writers. Outcomes of the present study could assist the academic writer in the hard and soft domains in using reporting verbs. Teachers could raise awareness of students focusing on six semantic categories of reporting verbs. The students could use the output to figure out what reporting verbs are appropriate in the context. Students should be familiar with which kind of reporting verbs they should use. Teachers may make a practice in the class to check students' comprehension for using different reporting verbs, show students some interesting journal papers, and ask them individually to distinguish various forms of reporting verbs used in a particular section of the article. This practice could help students use appropriate reporting verbs in their academic writing and avoid reporting verbs randomly. At the university level, this study is significant, especially for M.A and Ph.D. postgraduate students; they must be aware and have a whole idea about using different classifications of reporting verbs.

### **5.4 Limitation of The Study**

The present study emphasizes mainly the frequency of reporting verbs which consider essential verbs in academic writing. In writing each assignment, master dissertation, Ph.D. thesis writer will need these verbs. These verbs show the writer's personality when transforming information from previous studies to their present study.

The current study employs a qualitative approach. The sampling of this study is published articles written by Turkish writers from ( Dergipark Journals). The study data is eighty articles divided into two parts, soft and hard; forty articles belong to the soft domain while others belong to a hard domain. The data were analyzed with hand analysis under Halliday's theory.

## **5.5 Suggestion For Future Studies**

There is a need to extend the study to cover the entire macrostructure of the paper and use more genres, such as Ph.D. theses and student undergraduates' assignments. These different genres would provide a more general outcome. In addition, the corpus size should be increased to more than the words of the current study. For future studies on a related subject, it could be proposed that providing more time would allow for collecting a larger representative sample with a more significant number of verbs.

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Table 1. Description of Applied Linguistics Articles.

No.	Section coding	Publication of data	Page Number	Total words	Citation style
1.	INT. LR.	2018	<b>20</b>	826	(Author, date) style
2.	INT.	2019	<b>20</b>	471	(Author,date) style
3.	INT.	2019	<b>16</b>	431	(Author,date) style
4.	INT. LR.	2020	<b>33</b>	3126	(Author,date) style
5.	INT. LR.	2020	<b>23</b>	3304	(Author,date) style
6.	INT.	2020	<b>22</b>	577	(Author,date) style
7.	INT.	2020	<b>21</b>	236	(Author,date) style
8.	INT.	2020	<b>18</b>	264	(Author,date)style
9.	INT.	2020	<b>26</b>	287	(Author,date)style
10.	INT.	2018	<b>14</b>	292	(Author,date)style
<b>10</b>	<b>10</b>	<b>10</b>	<b>213</b>	<b>9814</b>	

**Table. 2 Description of Economic Articles.**

NO.	Section coding	Publication date	Pages Number	Total words	Citation style
1.	INT.	2018	23	820	(Author, date)style
2.	INT.	2019	12	45	(Author, date)style
3.	INT.	2019	19	787	(Author, date)style
4.	INT.	2018	18	757	(Author, date)style
5.	INT.	2019	16	471	(Author,date)style
6.	INT.	2020	24	973	(Author,date)style
7.	INT.	2019	17	766	(Author,date)style
8.	INT.	2019	12	1292	(Author,date)style
9.	INT.	2018	16	563	(Author,date)style
10.	INT.	2019	18	831	(Author,date)style
TOTAL	10	10	175	7712	10

**Table.3 Description of English Language and Literature Articles.**

	Section coding	Publication of data	Pages Number	Total words	Citation style
1.	INT.	2019	4	457	(Author, date)style
2.	INT.	2019	6	357	(Author, date)style
3.	INT.	2019	6	381	(Author, date) style
4.	INT.	2019	13	523	(Author, date)style
5.	INT.	2019	6	753	(Author, date)style
6.	INT.	2019	5	794	(Author, date)style
7.	INT.	2019	15	203	(Author, date)style
8.	INT.	2019	8	280	(Author, date)style
9.	INT.	2019	8	500	(Author, date)style
10	INT.	2019	7	336	(Author, date)style
Total	10	10	79	4584	10

**Table. 4Language teaching and Educational Research**

<b>No.</b>	<b>Section coding</b>	<b>Publication of data</b>	<b>Pages Number</b>	<b>Total words</b>	<b>Citation style</b>
1.	INT. L.R	2019	20	1018	(Author, date)style
2.	INT.L.R	2019	19	1392	(Author, date)style
3.	INT.	2019	12	1101	(Author, date)style
4.	INT.	2020	12	1380	(Author, date)style
5.	INT.	2020	17	1939	(Author, date)style
6.	INT.	2020	19	865	(Author, date)style
7.	INT.	2020	21	1881	(Author, date)style
8.	INT.	2020	21	552	(Author, date)style
9.	INT.	2018	19	704	(Author, date)style
10.	INT.	2018	16	1463	(Author, date)style
Tot al	10	10	176	12295	10

**Table .5 Description of medicine Articles.**

NO.	Section coding	Publication of data	Pages Number	Total words	Citation style
1.	INT.	2020	7	343	Numbering style
2.	INT.L.R	2020	5	599	Numbering style
3.	INT.	2020	5	514	Numbering style
4.	INT.	2020	6	325	Numbering style
5.	INT.	2020	6	363	Numbering style
6.	INT.	2020	5	865	Numbering style
7.	INT.	2020	8	391	Numbering style
8.	INT.	2020	4	278	Numbering style
9.	INT.	2020	6	167	Numbering style
10.	INT.	2020	2	280	Numbering style
Total	10	10	54	4125	10

**Table. 6 Description of biology articles.**

NO.	Section coding	Publication of data	Pages Number	Total words	Citation style
1.	INT.	2020	12	593	Numbering style
2.	INT.	2020	13	597	Numbering style
3.	INT.	2020	23	928	Numbering style
4.	INT.	2020	16	341	Numbering style
5.	INT.	2020	14	603	Numbering style
6.	INT.	2020	12	959	Numbering style
7.	INT.	2020	22	508	Numbering style
8.	INT.	2020	17	927	Numbering style
9.	INT.	2020	12	531	Numbering style
10.	INT.	2020	10	416	Numbering style
Total	10	10	151	6403	10

**Table.7 Description of Chemical Engineer Articles.**

N0.	Section coding	Publication of data	Pages Number	Total words	Citation style
1.	INT.	2020	5	739	Numbering style
2.	INT.	2019	9	532	Numbering style
3.	INT.	2020	9	342	Numbering style
4.	INT.	2019	5	340	Numbering style
5.	INT.	2020	9	659	
6.	INT.	2020	5	486	Numbering style
7.	INT.	2019	5	291	Numbering style
8.	INT.	2018	21	501	Numbering style
9.	INT.	2020	13	670	
10.	INT.	2019	11	466	Numbering style
Total	10	10	95	5026	10

**Table .8 Description of Nursing Articles.**

N0.	Section coding	Publication of data	Pages Number	Total words	Citation style
1.	INT.	2019	6	445	Numbering style
2.	INT.	2019	2	133	Numbering style
3.	INT.	2019	1	101	Numbering style
4.	INT.	2019	6	651	Numbering style
5.	INT.	2019	9	573	Numbering style
6.	INT.	2020	4	468	Numbering style
7.	INT.	2020	3	748	Numbering style
8.	INT.	2020	7	339	Numbering style
9.	INT.	2020	4	723	Numbering style
10.	INT.	2020	5	353	Numbering style
Total	10	10	47	4534	10



## **RESUME**

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