A CORPUS-ASSISTED STUDY OF COHESION PATTERNS OF ACADEMIC DISCOURSE IN FSS AT NUML

BY

AFROZA KHAN

NATIONAL UNIVERSITY OF MODERN LANGUAGES

ISLAMABAD

DECEMBER, 2023

A Corpus-Assisted Study of Cohesion Patterns of Academic Discourse in FSS at NUML

By

AFROZA KHAN

BS English, University of Poonch Rawalakot, AJK, 2018

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF PHILOSOPHY

In English

To

FACULTY OF ARTS & HUMANITIES

NATIONAL UNIVERSITY OF MODERN LANGUAGES, ISLAMABAD

© Afroza Khan, 2023

THESIS AND DEFENSE APPROVAL FORM

The undersigned certify that they have read the following thesis, examined the defence, are satisfied with the overall exam performance, and recommend the thesis to the Faculty of Arts & Humanities for acceptance.

Thesis Title: A Corpus-Assisted Study of Cohesion Patterns of Academic Discourse in FSS at NUML

Submitted by: Afroza Khan   **Registration #:** 10 MPhil/Eng Ling/ S20

Master of Philosophy
Degree name in full

English Linguistics
Name of Discipline

Dr. Samina Qayyum   _____
Name of Research Supervisor   Signature of Research Supervisor

Dr. Muhammad Safeer Awan   _____
Name of Dean (FAH)   Signature of Dean (FAH)

_____
Date

AUTHOR'S DECLARATION

I, <u>Afroza Khan</u>

Daughter of <u>Muhammad Naeem Anjum</u>

Registration # <u>10-MPhil/Eng Ling/ S20</u>

Discipline <u>English Linguistics</u>

Candidate of **Master of Philosophy** at the National University of Modern Languages does hereby declare that the thesis **A Corpus-Assisted Study of Cohesion Patterns of Academic Discourse in FSS at NUML** submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

I also understand that if evidence of plagiarism is found in my thesis at any stage, even after the award of a degree, the work may be cancelled, and the degree revoked.

_____

Signature of Candidate

_____ _____

Date Name of Candidate

ABSTRACT

Title: A Corpus-Assisted Study of Cohesion Patterns of Academic Discourse in FSS at NUML

Cohesion is an important aspect of academic writing. When writing is coherent or "sticks together," readers can understand it well. The present research has been carried out to investigate the use of grammatical cohesive patterns in MPhil theses produced in the departments of Education, International Relations and Pakistan Studies in the faculty of social sciences at NUML. The study was specifically intended to explore various types of grammatical cohesion. The cohesion model proposed by Halliday and Hassan (1976) has been used as a theoretical lens in this study. The first objective of this research was to investigate the most common type of grammatical cohesion used by the students in their academic discourse and the second objective was to investigate the inappropriate use of grammatical cohesive devices. Data analysis was done by using a mixed method approach as data has been analyzed by using both quantitative and qualitative methods. A corpus was constructed by selecting thirty theses from three departments of social sciences. The data analysis was done in two phases. Firstly, the researcher used the computational software AntConc (3.5.8) to find out the frequency of each type of grammatical cohesion found in the selected academic discourse, which was followed by the manual reading of the corpus to see the inappropriate use of those grammatical cohesive patterns. Consequently, the findings of the present research showed that the three most frequent types of grammatical cohesion were references (12.53%), conjunctions (5.71%), and ellipses (0.28%). Contrarily, the least frequent kind of grammatical cohesion in the academic discourse of the chosen departments was substitution (0.09%). The research discovered fewer misuses of grammatical cohesive devices as well.

Keywords: Grammatical cohesion, academic writing, corpus analysis, computational software, inappropriate use

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

FSS   Faculty of Social Sciences

NUML   National University of Modern Languages

ESL   English as a Second Language

EFL   English as a Foreign Language

ACKNOWLEDGEMENTS

First and foremost, I want to give thanks and gratitude to the Almighty God, for his countless blessings as a result of which I have finally been able to complete my thesis.

I would like to acknowledge and give my warmest thanks to my supervisor Dr. Samina Qayyum who made this work possible. Her guidance and advice carried me through all the stages of writing my thesis. She has always given positive and constructive advice and has been extremely helpful in times of need, I am sincerely grateful for this.

I would also like to give a special gratitude to my parents, Muhammad Naeem Anjum and Robina Naeem, and my siblings, for their ultimate support and encouragement throughout my life. My mother is to be mentioned here as she took all the responsibility of house so that I could continue with my studies; her emotional support was always there whenever I felt stressed because of work pressure and studies. The support of my family is one of the most precious blessings of Allah and I express my gratitude to them.

Thanks to the English Department of NUML for offering me the academic and creative space, to bring this thesis to life.

Finally, I would like to express my deepest thanks to my friends Sadia Mumtaz, Ana Shoaib, and Azhar Rasheed who have generously contributed to the conduction of this research through their support, insightful comments and suggestions.

Thank you all.

DEDICATION

This thesis is dedicated to my parents for their love, endless support, and encouragement.

Mama Baba! Thank you for helping me to shape my life with positivity and passion. Without you, I'd never have been the person I am today. Thank you for everything!

CHAPTER 1

INTRODUCTION

This chapter comprises the general summary and the basics of this study. It presents the background of the study, research objectives, questions, and the problem statement. Moreover, significance of the research is also stated to authenticate the topic.

1.1   Academic Writing

Writing is the most complex language skill because it is the recorded thought which can be edited and revised and entails revising, rehearsing, and drafting. In everyday life, it is evident that writing might result in script writing, a diary, a letter or an application letter (etc.). According to Othman (2019), writing is among the most crucial language skills in teaching English as a foreign language (EFL), and it is the second most significant skill after speaking. English is now an international language that individuals must be aware of. In Pakistan, along with local languages, there are some foreign languages which are taught at various institutional levels such as Arabic, Persian, Chinese and French (etc.). The most important second language in Pakistan is English, which is also the official language of Pakistan. Students in Pakistan are taught English from elementary school till university. Hence English is very important for Pakistani students. Because of the international significance of English in the world, the Pakistani government has incorporated English into the national curriculum and has made it one of the compulsory subjects.

Writing causes several difficulties for learners since it is a very challenging skill. Writing can take many different forms, including narrative, argumentative, report, exposition, and descriptive paragraphs (etc.). For the second language learners of English, writing is certainly imperative as they need to write their academic writings in English which is usually a challenging and daunting task for them.

Academic writing is a style of language that can be employed by researchers to establish the academic parameters of their respective disciplines and specializations. Academic writing is

a kind of writing which can be used to communicate ideas and is intended to be read by a larger academic audience. Academic writing is divided into two categories: expert academic writing and academic writing by students. Students may find it challenging to learn both styles of academic writing since they are required to follow the same rules. Academic writing is distinct from other kinds of writing in several ways; it is a clear, formal, well-structured, unbiased, objective, precise, balanced, evidenced, formal, critical, and well-sourced piece of writing. Academic writing should have a well-organized structure and arguments made in academic discourse should be based on evidence because it is essential for the academic writer to establish their viewpoint on a certain subject or how effectively they can make an argument. Furthermore, academic writing should be in precise and clear language so that the reader gets the idea, as well as academic writing should be unbiased, objective and more formal than everyday writing. In academic discourse, the text should be cohesive and coherent, with a clear connection between each section and should follow a logical pattern from beginning to end.

Cohesion is a crucial component of academic writing since strong cohesion is necessary for successful writing. Cohesion is the relationship between one part and another in a text which is essential to its understanding (Halliday & Hasan, 1976). In several nations where English is a second language that is taught and spoken, most English as a second language learners (ESL) do not follow the key features of academic writing which include adequate development, unity, cohesion and coherence. In writing, most ESL students fail to recognize that certain words or phrases that link two sentences together typically refer back to what has already been stated or written. This phrase or word is called a cohesive device. The ESL learners must understand how to utilize cohesive devices appropriately to establish the link between the sentences within the paragraphs to achieve good cohesion but English as a second language students usually ignore the use of the appropriate cohesive devices through which they usually produce incoherent pieces of writing.

Similarly, it has been evident in some research that the writings of English as a Second Language students mostly lack cohesion and coherence. The studies conducted by Ahmed (2010; Ahmad et al., (2019), TSO (2019), Shkak and Hasan (2021), and Alqasham et al., (2021) revealed that ESL students do not use cohesive devices appropriately in their writings. Likewise, in Pakistan where English is taught as a second language, students encounter many difficulties in

their academic writing. Some researchers have researched to find out the writing difficulties encountered by Pakistani English students. In line with this argument, Sheikh (2020), Ahmad et al., (2011), and Farooq et al., (2020) stated that writing in a second language has always been difficult for language learners, especially in Pakistan as most students encounter challenges while writing in English. Their writings usually lack well-organized structure, unity, coherence and cohesion through which writings are not comprehendible to readers. Some researchers (Michael, et al., (2013), Almutairi (2017), and Bahaziq (2016) employed discourse analysis to see how ESL learners utilize cohesive devices in their written discourse.

The discussion above suggests that, ESL students, particularly those who do not study English as their core subject, produce incoherent pieces of writing because they are unfamiliar with how cohesive devices are employed in academic discourse.

1.2   Background of the Study

English is regarded as the first global *Lingua Franca*. The English language has become a part and parcel of every existing field. It is the language of communication, information technology, science, entertainment, business and so on. As cited in KIickaya (2009), three circles were proposed by Kachru (1997) to divide the English-speaking world. Native English-speaking nations like Canada, the United States and England are included in the Inner Circle where English was traditionally the predominant first language. The nations on the Outer Circle, such as Nigeria, Kenya, India, Singapore and the Philippines were postcolonial countries where English had an official or institutional role. The expanding circle includes China, Japan and Turkey which are examples of nations influenced by the West. The expanding circle countries were those where English was typically only spoken as a second language and had no institutional or official function inside the nation. However, the English language has now become an integral part of the educational curriculum. It is spoken by 1.5 billion people around the world. In some English-speaking countries, it is spoken or taught as the first language by 350 million people (Ohse, 2017) and in other countries English language is being taught as a second and foreign language. As Kirkpatrick (2014) stated, English as a native language is spoken in inner-circle countries such as the USA and Britain; English as a Second Language is spoken where English plays an important international role, especially in postcolonial countries such as

Nigeria and Singapore, and English as a Foreign Language is spoken only in classrooms in those countries where English has little practical use outside the classroom.

Likewise, in Pakistan, English language is being taught as a second language and taken into curriculum which is being taught up to the graduate level because language is the main factor of communication and a reflection of mental images through speech and writing as listening, speaking, reading, and writing are essential language skills. People communicate with one another through spoken and written language. Among all the skills, since writing is a productive skill, a type of literacy, a communicative activity, and sometimes a tool for evaluating students, it is the most complicated skill (Peter & Singaravelu, 2020). Writing is a process of communication which uses a conventional graphics system to the readers (Zainiah, 2018). Furthermore, as stated in Anwar (2017): Gerot and Wignell (1994, p. 161) state that spoken language is grammatically complex, whereas written language is lexically complex which is a medium of expressing meanings to others. Sentences within the text must be united and cohesive to communicate the thoughts and ideologies of people with one another. The sentences within the written text may have a good unity with the help of cohesive devices. If the sentences in any written text are fairly united, they bring a clear understanding of the content of that specific discourse with the help of which readers can easily understand the message. Written discourse can be in the form of academic writings, articles, columns, daily notes, poems novels, theses, journals and many more. Thesis writing is a type of written discourse which is based on students' research. The students can put forth their perspectives and knowledge through their academic writing.

Academic writing communicates perspectives, ideas and information among the people regarding any specific topic or research. Academic writing can be of two types, student academic writing and expert academic writing. Student academic writing is a kind of assessment at school as well as at university whereas, expert writing is that kind of writing which is intended to be published in a book or an academic journal. The key differences between academic writing and other forms of writing are that academic writings are mostly well-structured, evidenced, balanced, critical, formal, precise and objective. Irvin (2010) claims that academic writing is usually a sort of assessment that requires you to present knowledge and exhibit proficiency with particular skills in presenting, thinking, and interpreting.

Also asserted in a research carried out by Ahmad et al., (2019) writing is a thinking process in which the writers typically decide on lexical and structural choices as well as information and structure of concepts. Because of this, words and phrases are carefully chosen and arranged so that coherence and cohesion to be achieved through various contextual, semantic, and grammatical relationships. Good writing always needs adequate development, cohesion, unity, and coherence and it demands an eminent lexical and grammatical involvement to develop writing reflectively. Cohesion is the correlation between sentences in a paragraph of grammatical cohesion or lexical cohesion. We can understand the paragraph if we understand cohesion well and not only about language but also of the knowledge of reality about the paragraph. A paragraph or text is called cohesion in the form of sentences found cohesion on grammatical or lexical aspects (Zainiah, 2018).

As already been discussed academic writing is a kind of evaluation and the ability to write a text in English is essential for postgraduate students as submitting the final project or thesis is one of the basic requirements for the students to graduate from university. Second language learners, particularly students in social sciences encounter many difficulties in writing in English as in their higher studies, they need to write their academic writings in English where they usually cannot perform well because academic writing is a difficult skill to learn as stated by Sheikh (2020), it is not just a basic cognitive activity rather, it is understood to be a complex mental process requiring careful thinking, discipline, and attention (Grami, G. M. A., 2010). To avoid accidental or intentional plagiarism, students need to practice paraphrasing material and crediting them appropriately. Students also find grammar to be quite challenging to students due to its numerous rules. Academic papers written by students are typically fraught with technical errors, particularly in areas like grammar, paragraphing, word choice, punctuation, and sentence structure (Sheikh, 2020).

Consequently, writing an academic discourse is a challenging task for many ESL students around the world and a significant barrier for the majority of English as a second language learners in Pakistan. Although multiple instructional strategies have led to the development of various approaches to the teaching of writing in English, ESL writing is still very challenging for learners, especially for students of social sciences. It is quite challenging for the students of social sciences to write a structured, precise and coherent piece of writing. Along with the bad organization, the wrong thesis statement, the inadequate use of examples and details, the limited

vocabulary, and the poor use of cohesive devices are another issue that contributes to the difficulty. Most students struggle to use particular words or phrases in their writing that are used to link two sentences together, usually by referencing something that they have already written or spoken. Sometimes they do not know how to properly use cohesive ties and devices in their writing. Sometimes they are unable to convey an accurate and obvious concept or they do not use topic sentences correctly. Additionally, the improper use of transitional signals and inappropriate punctuation and spelling are other challenges faced by students of social sciences while writing in English.

1.3   Statement of the Problem

The use of cohesive devices is a fundamental component of academic writing since it helps to create coherence and unity among ideas in a text. Writing in the English language has been a significant challenge in Pakistan more specifically in higher education like universities where students are expected to create and consume specialized information. However, students usually struggle with cohesion in their academic writing, which can result in disconnected and poorly structured texts. Additionally, students at NUML have varying proficiency levels in the English language, which may have an impact on how well they can use cohesive devices. Students have trouble achieving cohesion while writing in a second language. The Faculty of Social Sciences at NUML is no different. Students in different disciplines at FSS such as Education, Psychology, Mass Communication, International Relations, and Pakistan Studies encounter many difficulties while writing in English and do not study English as their core subject. The lack of cohesion causes an informal piece of writing to lack coherence among sentences and paragraphs as well as organization, objectivity, precision, and clarity. Effective academic writing requires adequate development, unity, and coherence, and it requires an eminent lexical and grammatical involvement to develop writing reflectively. However, students in social sciences tend to focus more on the discourse level rather than the sentential and lexical level, making it challenging for them to produce a coherent piece of writing.

Therefore, this study has employed a textual analysis method to investigate the cohesion patterns found in the chosen theses. The present study used a contrastive mode to compare and analyze the use of cohesive devices by students from the selected departments of Education, International Relations, and Pakistan Studies to identify similarities and differences in the use of

cohesion patterns. The study also identified which of these theses lack cohesion the most and the predominant type of cohesion in the selected academic discourse.

1.4   Significance of the Study

The present research contributes to English as second language students, in general, and students in the faculty of social sciences. The present research has provided the comprehension of the challenges faced by the students in the faculty of social sciences in the cohesion of their academic discourse so that they will not repeat such mistakes while writing an academic discourse in the future.

This research has some implications for both the social science teachers and the students at graduate and undergraduate levels and on how they can polish their academic writing skills by improving upon their understanding of cohesive devices and by employing them in their academic writing.

The findings of the present study can be used by teachers to create effective pedagogical strategies that may help students learn how to employ cohesive devices effectively in their academic discourse. For instance, teachers can add lessons in their educational programs that emphasize the use of reference chains, conjunctions, and lexical repetitions as cohesive devices. Additionally, teachers can also provide students with feedback on how well they used cohesive devices and provide them with examples of effective academic discourse. Students can also use the results of this study to improve their academic writing skills by learning about the various types of cohesive devices and how they can use them appropriately.

1.5   Research Objectives

1. To explore the most recurring cohesive devices used in the academic discourse of students in the faculty of social sciences (FSS) at NUML.
2. To determine the way the cohesive patterns deviate in the academic discourse in FSS at NUML.

1.6 Research Questions

1. What types of cohesive devices are frequently employed in the academic discourse of students in the faculty of social sciences (FSS) at NUML?

2. How do cohesion patterns deviate in the academic discourse of students in FSS at NUML?

1.7 Operational Definitions

1.7.1 Writing

Writing is the process of communicating thoughts and ideas in a readable manner by using symbols, alphabetic letters, punctuation, and spaces. Writing is a type of human communication that includes the symbolic representation of a language.

1.7.2 Academic Writing

The term "academic writing" refers to a specific style of writing that researchers use to describe the intellectual dimensions of their respective fields and expertise. It is distinguished by a formal tone, the use of the third person rather than the first, a distinct focus on the research problem under examination, and accurate word choice.

1.7.3 Cohesion

Cohesion is the element of a text that allows it to be understood as a whole. It is defined as the set of linguistic tools for creating texture. Cohesion happens "when the interpretation of one textual element depends on the interpretation of another."

1.7.4 Cohesive Devices

Cohesive devices are words or phrases that link concepts between various parts of a text. These are also known as connectors or linking verbs.

1.7.5 Grammatical Cohesion

Grammatical cohesion is produced by the grammatical structures that bind each component together. Grammatical cohesion is the relationship of sentences created by grammatical aspects. The types of grammatical cohesion are reference, substitution, ellipsis and conjunction.

1.7.6 Lexical Cohesion

Lexical coherence deals with the meaning of the text. This is the cohesive outcome of the vocabulary choice. It focuses on the relationships between lexical items and the development of cohesive devices to ensure textual cohesion.

In conclusion, this study aims to better understand how postgraduate students in FSS at NUML use cohesive devices in their academic writing. To develop a clear understanding of the concepts involved, the research offers operational definitions of important terms including writing, academic writing, cohesion, cohesive devices, grammatical cohesion, and lexical cohesion. The present study has substantial implications for FSS students and teachers since it sheds light on the difficulties students encounter when writing academically and provides an adequate basis for improving their writing skills.

1.8 Delimitation of the Research

- The present research is delimited to identify and analyze the grammatical cohesive devices (including reference, conjunction, ellipsis, and substitution) used in chapter five of the selected theses.

- The intended research is delimited to Halliday and Hassan's cohesive model to find out how the cohesive devices are used in chapter five of theses written by the students from three disciplines of social sciences at NUML.

- The present research is also delimited to corpus analysis which is used as a tool for textual analysis of cohesive patterns used in selected academic discourse for this study. The corpus analysis involved the identification and analysis of the frequency of the cohesive devices in the selected theses.

- The present study is also delimited to NUML as theses have been selected from the NUML online database for the data analysis. A total of 30 MPhil/MS theses from the year 2020-2021, (i.e.,) 10 theses from each of the three selected disciplines, have been selected for the analysis.

1.9   Limitations of the Study

This study is limited to only three disciplines of the Faculty of Social Sciences namely the Department of Education, Department of International Relations, and Department of Pakistan Studies to determine the similarities and differences in the usage of cohesive patterns in the academic discourse of these disciplines. The samples have only been taken from these disciplines at NUML mainly because at the phase of data collection online available MS/MPhil theses at the NUML repository only had theses from these disciplines of Social Sciences.

1.10 Organization of the Study

The present study has been divided into five chapters, each of which covers a different aspect of the content. These chapters cover the introduction to the topic, previous research on the topic, research methodology along with a theoretical framework, data analysis, findings, conclusions, and recommendations.

The first chapter "Introduction" includes a background of the study considering the significance of cohesion in academic writing, exploring language challenges faced by ESL learners while writing in English. Moreover, this chapter introduces the problem statement, the significance of the research, research objectives, questions, and delimitations which were developed to carry out the present study.

Chapter two of the present study includes a review of the literature on the idea of language difficulties concerning cohesion. The chapter is subdivided into different sections including several research studies related to cohesion in various discourses. Additionally, it discusses the challenges students face in writing their academic discourse. This chapter's objective is to provide a summary of the relevant previous research that has been conducted to highlight the gaps in the field's knowledge and how each study adds new data and insights.

The third chapter of this study includes the detailed research methodology. It includes the theoretical framework of the study, research design, research procedure, sample, research instruments, data collection and data analysis method. For the present study, qualitative and quantitative research designs were employed to find out the results. The theoretical framework

has been discussed in detail. Halliday and Hasan's (1976) cohesion model along with the types of cohesion has been explained.

In chapter four data collection, data analysis, and the findings of the data based on the developed research questions of the present study have been discussed in detail. This chapter includes both quantitative and qualitative data analysis. Detailed analysis along with tables and figures has been presented in this chapter.

Finally, chapter five presents the overall study's conclusion based on the data that has been analyzed in this study and makes some recommendations and suggestions for more research. In this chapter, the conclusion has been given some suggestions have been provided to improve academic writing skills, and recommendations for further research have been provided.

1.11 Summary

Chapter 1 presents the background and purpose for this study's investigation of the problems in generating cohesive and coherent writing. It describes the language difficulties ESL students encounter when writing an academic discourse. This chapter also addresses the need to explore the cohesion issues in the context of Pakistan by examining the academic discourse. The next chapter reviews the body of existing studies conducted on the topic and a theoretical framework is devised for this study.

CHAPTER 2

LITERATURE REVIEW

2.1 Writing

Writing is the most imperative skill of language, which is used by people to communicate through marks, means, and symbols that are usually visible (Zainiah, 2018). Writing is not a simple skill but rather a complex one because it is both a physical and mental activity. The physical, in which the writer requires the medium to express his or her thoughts and ideas, and the mental, in the sense that it requires the development of ideas as well as consideration of their presentation and effective arrangement into phrases and paragraphs so that the reader can effectively interpret the text (Nunan, 2010).

Moreover, Jat et al., (2020) stated that writing is very crucial in modern education. It is consistently regarded as a crucial skill in both language acquisition and teaching. It has two beneficial grounds: firstly, it stimulates and encourages learners' idea generation, thinking, collecting, and organization of ideas and the development of their skills for organization, analysis, criticism, and summarization. Secondly, this can improve the critical thinking of learners, language comprehension, acquisition, and reflection.

Since writing is a complex and productive skill that requires much effort, sometimes writing in a second or foreign language is very challenging, particularly for second language learners and teachers. While writing in a second language, learners usually make serious mistakes in sentence structure, tenses, punctuation, spelling, and paragraph structure.

Academic writing is particularly more complicated and formal as it is characterized by specialized vocabulary, adherence to disciplinary rules, and a formal tone (Hyland, 2009). Furthermore, Swales and Feak (2004) stated that in academic writing, authors need to express their ideas and arguments in an organized and clear way and support their claims with proof from reliable sources.

Additionally, academic writing frequently asks for a thorough comprehension of the research method and process and the ability to properly and concisely convey research findings (Wallwork, 2016). As a result, mastering the art of academic writing is crucial for advancement in higher education and in one's career and personal life.

In summary, writing is a difficult skill that demands both mental and physical effort. Academic discourse, particularly, is an important component of higher education since it has a big impact on how well students communicate, think critically, and succeed academically. Cohesion, the logical and semantic linkages between various parts of a text, is one of the essential components of productive academic discourse. Without adequate cohesion and unity, academic writing can be unclear and challenging to understand, which makes it more difficult for students to successfully communicate their ideas. Despite its importance, non-native English speakers may have particular difficulties when writing in a second language, thus teachers should offer the appropriate kind of assistance to help these students improve their academic writing skills.

2.2   Challenges Faced by ESL Teachers in Writing

Developing strong writing skills is important not only for students' academic success but also for their social and emotional growth and future career prospects. However, many students, particularly those who are ESL learners, face challenges in developing these skills. These challenges can include bad grammar, poor spelling, limited vocabulary, and a lack of understanding of the language. As a result, teaching writing has become more difficult for teachers (Moses & Mohamad, 2019).

However, due to the difficulties students have in learning writing skills, teaching writing has become more challenging. These challenges may hinder the teachers to encourage and motivate their students. Teaching English to primary school children is quite different from teaching English to secondary and higher education students. The difficulty can somehow render the teachers' teachings ineffective. Teachers deal with the following difficulties.

One of the main difficulties teachers face is motivating and engaging their students. Asep (2014) supports the notion that many students lack interest in writing, which can be attributed to a sense of entitlement and lack of discipline. Additionally, teachers struggle to deal with students

who have varying levels of proficiency in writing. This makes it challenging to create lesson plans and activities that are appropriate for all students.

Furthermore, some students find writing to be boring and difficult, especially when it comes to complex writing tasks. This lack of interest can make it challenging for teachers to teach writing effectively (Anyiendah, 2017). Some students lose concentration, particularly when writing. Students feel bored in this process because it takes a lot of knowledge to write well. To write well, students must be familiar with punctuation, grammar, vocabulary, spelling, and sentence structure.

To overcome these challenges, teachers need proper guidance and feedback to effectively teach writing skills. They should emphasize the importance of proper punctuation and assign spelling exercises. Additionally, they should focus on grammar and written assignments, rather than just oral activities, as writing is often considered the most difficult skill to learn. Adam et al. (2021) asserted that the teacher should assist the students in writing so that they can learn and demonstrate the relevant skills. Even though teaching writing takes a lot of time, time must also be managed. Moreover, Adam et al. (2021) also said that teachers must use facilities effectively and wisely which can help in making teaching writing successful.

Hence, teaching writing became more formidable because of the challenges second language learners had in developing their writing skills. For improving a learner's writing ability a teacher should be given proper guidance and appropriate feedback to teach the writing skills. Palanisamy and Aziz, (2021) said that the usage of punctuation was a significant challenge for the students in their studies, thus the teachers should explain it to them. It is important to assign students spelling exercises. When teaching English, teachers should concentrate more on grammar and written assignments than oral activities because writing is regarded as the most difficult talent to learn. Farooq et al., (2012) recommended that teachers use an interpretive paradigm and teach vocabulary creatively.

In addition to this, Rashid et al., (2021) suggested that ESL teachers should also tailor their teaching methods to the needs and abilities of their students. They should provide resources and scaffolding to encourage and support students. Written feedback can also be beneficial for helping students improve their writing skills.

By addressing these challenges and using appropriate teaching methods, teachers can help their students develop strong writing skills, which will benefit them in their academic and professional lives.

2.3   Challenges Faced by ESL Learners in Writing

People from many cultures, racial groups, and socioeconomic classes use English as a common language around the world (Dewi, 2015). One of the important skills for English teachers is the ability to instruct writing in primary schools. Writing is a crucial part of English language teaching. Writing instruction has been given to students throughout their early years of learning how to make letters properly (Moses & Mohamad, 2019).

There are a lot of challenges which second language learners encounter in writing discourse in a second language and there can be ample major drawbacks in their academic performance as they have a very weak basis and impractical in writing. Writing is not just imperative in developing the academic performance of learners rather writing helps in developing their social, behavioural and emotional development. Similarly, in this world, writing is considered a skill to excel in something. If the students are unable to write appropriately, it may hinder their future goals.

Consequently, the challenges encountered by the second language learners include; poor spelling and grammar, lack of vocabulary, students' reading skills and their less exposure to reading materials. All second language learners may face various challenges in learning writing skills. These writing challenges may demotivate the learners to produce a good and authentic piece of writing. The problems which second language learners mostly encounter are as follows.

Second language learners mostly face problems in vocabulary while writing. As vocabulary is the momentous element in building up sentences, it is the core of effectual and constructive writing skills. Learners use spoken and written language to communicate their perceptions, beliefs, ideas and feelings. A good and appropriate vocabulary repository can help the learners to speak and write to convey their ideas and thoughts. Learners can have an ample vocabulary collection with the help of electronic dictionaries as well as other reading activities (Moses & Mohamad, 2019).

Similarly, the learners also have trouble in using grammar appropriately. Grammar is a vital element in writing because it can provide information that may help the readers understand the meanings conveyed by the writer (Moses & Mohamad, 2019). Grammar also deals with morphology which deals with the word structure and formation, and syntax which deals with the arrangement of words in a sentence. The learners may have difficulty in writing the sentences if they are not aware of correct grammar. According to Fareed et al., (2016), subject-verb agreement, articles, pronouns, prepositions, tenses, and fundamental sentence structures are all areas where students make more mistakes. Grammar-related activities and reading can help one's grammar skills (Moses & Mohamad, 2019).

Furthermore, having poor spelling is another challenge that second language learners encounter while writing in a second language. As asserted by Moses & Mohamad (2019) the students tend to spell according to their pronunciation, which causes incorrect spellings as indicated by Afrin (2016). Students may change a word's letter order by adding or removing letters. According to Benard (2014), students will improve their spelling by memorizing the words.

Lack of exposure to reading materials and books is another problem for second language learners in learning writing skills. According to Fareed et al. (2016), writing and reading are interconnected because if the learners do not have extensive reading, they cannot write good sentences as well as paragraphs. If the learners do not read books or other reading material, they do not have much ideas and vocabulary to write sentences or paragraphs. Foster (2016) explained that exposure to different reading materials can assist the students in developing their understanding of language awareness.

Hence, writing is considered to be a complicated skill to be learnt or taught because it is not just a simple and clear cognitive activity but it is a complex mental production of thoughts which needs "discipline, careful consideration, and concentration". Fadda (2012) stated that while writing in a second language, ESL learners usually encounter difficulties because they sometimes cannot differentiate between spoken and written phrases and words, and sometimes they have difficulty in reviewing grammar that may include subject-verb agreement and joining of sentences for making a coherent paragraph. Students may encounter issues that prevent them from progressing in their writing when coming up with ideas for their topics. (Murshidi, 2014).

Another major cause is reading and then writing it in their own words may lead to grammatical mistakes which may make students reluctant to summarize other's work (Amin & Alamin, 2012); instead, they just copy and paste (Badi, 2015, p. 66). As stated in Shkak and Hasan (2021), writing is major because it's utilized extremely in higher education and the workplace. If students do not sense how to convey themselves in writing, they will not be capable of communicating well with professors, employers, peers, or just about anybody else. Proposals, reports, emails, memos, applications, first interviews, and more are all common forms of professional communication that successful college students and graduates use regularly. Writing has a very crucial place in language teaching as its acquisition needs practice and fluency of the other three language skills (i.e.,) listening, speaking and reading. Additionally, writing skills can be acquired after mastering the other three metacognitive skills.

To support the above notion, Ahmed (2010) researched to find out the organizational problems that are encountered by Egyptian students and teachers while writing an English essay. Particularly, this study was conducted to investigate cohesion and coherence problems faced by students in EFL essay writing. The researcher selected a mixed method research including a questionnaire and a semi-structured interview. According to the researcher Ahmed (2010), students' difficulties with coherence in English essay writing might be attributed to several factors. First, it was determined that topic-specific prior knowledge had an impact on the general quality and coherence of student writing. Second, it was discovered that students with limited English proficiency struggle to write coherently since they are focused on their language rather than their intended meaning. Furthermore, the researcher explained that students from Arab universities frequently use different writing strategies while writing in English, due to which they produce incoherent pieces of writing. They have difficulty in using anaphoric and cataphoric references, substitution, ellipsis and other genre-related cohesive devices. Sometimes, the overuse of some specific cohesive devices also causes problems in producing a cohesive piece of writing. Hence, the researcher concluded that due to the differences between English and Arabic, Egyptian students have difficulty in writing in English because the cultural differences between English and Arabic language are responsible for using cohesive devices differently in the two languages. The researcher claimed that the fundamental characteristics of Arabic cohesion were additive, generalized, repetition-oriented, and context-based. On the contrary, English cohesion is characterized as specified, non-additive, text-based, and change-oriented.

Similarly, Sesriyani (2017) carried out research to find out the errors made by the students in using cohesive devices while writing an essay, the reasons for these errors and the remedial strategies that are planned to solve the errors made by the students. The participants for this research were 48 students of the second semester of English Department of Cultural Sciences Faculty of Sebelas Maret University during the academic year 2014/2015. For this study, the researcher used the descriptive analysis method. The researcher concluded that the students found it difficult to use references and conjunctions properly in their written discourse. The researcher pointed out the causes for the misuse of these cohesive devices and explained that the students faced intralingua errors which are ignorance of the rule, incomplete application of the rule, and false concept of false analogy. Moreover, it was found that the most dominant error in reference was misinformation and the dominant error in conjunction was disordering.

Another study conducted by Faradhibah and Nur (2017) examined students' struggles to maintain coherence and cohesion in the writing process. For this study, the researchers used a descriptive qualitative method in which 36 students were taken as participants from the Department of Tarbiyah and Teaching Science Faculty of UIN Alauddin Makassar. The researcher concluded that students have difficulty in maintaining their cohesion and coherence in writing because of the plethora of reasons. The students were perplexed about their concepts or ideas; they didn't know how to convey their ideas and where to write them. Moreover, the students encountered difficulty in building a paragraph, providing the necessary supporting data, and employing transition signals as well as, and they ignored the correct use of punctuation and spelling.

The research was carried out by Othman (2019) to find out the types, frequencies and causes of grammatical cohesion in the writings of 40 Saudi English students who were students at the Department of Language and Translation at the University of Tabuk in Saudi Arabia. The researcher used Halliday and Hassan's (1976) framework of cohesion to analyze the data both qualitatively and quantitatively. The researcher being an English language instructor realized that Saudi EFL students face difficulties in producing well-connected paragraphs and they frequently use lengthy sentences and ignore punctuation which disrupts the clarity of their messages and leads to unclear statements. Therefore, this research was conducted to investigate the grammatical cohesion errors made by Saudi EFL students while writing in English. Hence, the

research concluded that there were errors in three major types of grammatical cohesion (i.e.,) reference, conjunction, and substitution. The most frequently occurring errors in their texts were conjunction, then reference and the fewer amounts of substitution errors found in their written texts. The researcher stated that the errors that occurred in Saudi undergraduate students were due to the influence of their mother tongue, language background, lack of vocabulary and the inadequate knowledge of grammatical cohesive devices.

Shkak and Hasan (2021) researched to find out the cohesion and coherence difficulties faced by the students of Soran University in EFL essay writing. For this research, students from the English Department at the third stage of the Faculty of Education were the participants in this study. The research was carried out qualitatively, where ten participants were supposed to write essays. According to the researchers, a large number of ESL/EFL learners were unable to comprehend the significance of cohesion and coherence in their written discourse which produced low-quality writing. The results of this research indicated that students faced some problems in terms of cohesion and coherence in writing because of some reasons. First, the students were mostly unclear about their concepts as they were unable to know how they could select their concepts and where to write them because they had innumerable concepts in their minds at the time. They were not well aware of structuring a paragraph which consists of three sections (i.e.,) a topic sentence, supporting sentence or body of paragraph and conclusion. If any one of these components is missing, it will not be counted as an authentic and good paragraph. Students had difficulty combining all three parts of paragraphs in their writing which may produce incoherent writing. Second, another difficulty faced by students was about using appropriate transition signals, punctuation and spellings because in coherent writing, supporting sentences are arranged in a logical order and the ideas are linked by the specific transition signals. So the researcher concluded that some students have problems in using the lack of transition signals whereas enough transition signals are used to make good writing. The third problem which was encountered by the students was related to spelling and punctuation. The researchers found many punctuation errors and spelling mistakes in their writings. Hence, the researchers found out that the students of Soran University had faced problems in conveying their ideas appropriately, spelling and punctuation, and using the appropriate transition signals.

Like other countries where English is spoken as a second language, students in Pakistan also face problems while writing in English.

2.4   Writing in Pakistani ESL Academia

Pakistan is a multilingual society where almost 75 regional languages are spoken in which Urdu is spoken as a national and official language. Moreover, Punjabi, Sindhi, Balochi and Pashto languages are spoken in various regions of Pakistan. Pakistan is a country which remained under British rule from 1857 to 1947. Therefore, the English language which is being language of former rulers is now learned as a foreign language for various purposes (i.e.,) competitive exams, job placement, prestige and education at different levels like schools, colleges and universities. In Pakistan, the examination system is generally based on writing, but the EFL learners usually could not master the writing skill before 16 to 18 years of education. The students of higher studies doing research take several months to finalize the topic and material in writing a thesis.

Hence, academic writing needs the role of teachers and their proficiency as teachers' proficiency level is necessary for the EFL learners because teaching English as a foreign language is a challenging task for the non-native teachers and learners. Stakeholders, policymakers, researchers, teachers recruiting agencies and teachers should work for a feasible solution to the problems faced by EFL learners in academic writing. As stated in Khan, Majoka, and Fazal (2016) students in Pakistan struggle with a variety of issues while trying to write for academic reasons and build their research literacy. Students struggle with two major issues: a lack of analytical ability and a poor knowledge of the English language. This is shown in the thesis and dissertations of the majority of postgraduate students.

According to Jat et al., (2020), young students in Pakistan struggle with writing since they can't make their work coherent and cohesive. They have issues with organization and have a lot of trouble analyzing and organizing their ideas. The researchers conducted this study to find out the difficulties faced by Pakistani undergraduate students in the organization of their essays and the results of this study indicated that many students found it challenging to write introductions, topic sentences, thesis statements, transitions between ideas, cohesive devices, sequencing, and conclusions. Furthermore, the researchers stated that the cohesion and coherence problems were caused due to the effects of background and low proficiency in language.

Mahmood (2020) researched to explore the academic writing challenges faced by EFL learners in higher education in Pakistan. For this research, 19 EFL learners were selected as samples; those students were enrolled for MA TEFL in a public sector university in Pakistan. The study identified five key issues that EFL students faced while writing an academic discourse: references and citations, cohesion and coherence, selecting an interesting topic, language use and some others. This study also explored the challenges in teachers' proficiency levels and found that the absences of pedagogical and analytical abilities, as well as the incompatibility of the curriculum, were discovered to be the reasons for the low competency level of teachers.

Moreover, second language learners also face difficulties in writing an academic discourse which is "the logical arrangement and sequence of the sentences in paragraphs within the units of discourse…and how ideas are expressed" (Abu-Ghararah, 1998, p. 87). Academic writing is a weak area in EFL learning which causes certain problems to the students. According to Burke (2010); academic writing is "an activity, offshoot of the brain".

In conclusion, EFL students have difficulty acquiring writing techniques, especially in academic writing. Pakistani students suffer from low English language and analytical skills, which causes problems with coherence and organization in their academic work. Another aspect of these difficulties is the lack of teacher knowledge. For EFL students, academic writing is an area of weakness that presents challenges in the logical organization and exposition of ideas.

2.5   Features of Academic Writing

According to Poudel and Dhankuta (2018), academic writing is a type of formal writing that is mostly used in publications and universities. In a broad sense, academic writing includes any writing assignments completed in an academic context, such as books, research papers, academic journals, theses, dissertations, and conference papers. More precisely, academic writing is a form of writing that is done to meet requirements for a college, university, magazine, publication, or conference. Similarly, academic writing is a formal style of writing students use in college or high school classes and is distinct from creative and personal writing. Academic writing may be summed up as a type of written expression having distinct intellectual limits and fields of competence (Oshima & Hogue, 2007).

Murray (2009) in his definition of academic writing stated that it is the set of standards employed in publishing a paper or writing a thesis in a specific field'. Moreover, Irvin (2010) defines academic writing as Academic writing is usually a form of assessment that requires you to show understanding and competence with certain discipline thinking, interpreting, and presentation skills.

Academic writing is evidence-based and discipline-specific. Evidence-based refers to the viewpoints and statements that are introduced in an academic test that are usually based on well-founded and authentic sources. Similarly, discipline-specific writing means that an academic writer follows the guidelines and conventions of his/her specific discipline including format of writing, organization, font, and style. This helps identify the academic writer's disciplinary background (Poudel & Dhankuta, 2018).

In academic writings, writers are supposed to answer the how and why questions rather than what questions. Irvin (2010) outlines three crucial activities in an analytic presentation: (a) engaging in an open inquiry that is uncertain at first, (b) identifying the meaningful components of the subject, and (c) examining the parts individually and figuring out how they relate to one another.

Academic writing is a logical argument in the sense that these arguments are not just for winning the dissension, rather these arguments support the viewpoints heedfully. Irvin (2010) describes the presentation of viewpoint as the conversation of two people who may have different opinions but are both interested in gaining a deeper understanding of the topic. An organized argumentative presentation along with substantial supporting evidence has a significant importance in effective academic writing (Poudel & Dhankuta, 2018). Academic writing is the writing that students are required to complete for their university courses. The terms essay, research paper, term paper, argumentative paper/essay, analytical paper/essay, informative essay, and position paper may vary depending on your teachers, but they all have the same objectives and standards (Whitaker, 2009).

Furthermore, Swales and Feak (2012) stated that academic writing is a well-organized piece of writing that carefully considers elements such as audience, goal, flow, structure, style, and presentation. These elements are unique to who, how, and why questions. The readers of the

writers' message are the audience, about who question. According to the audience's description, the specific content, vocabulary, explanation, and organization may be selected for academic writing. Likewise, the why questions distinguish between various forms of writing; the purpose refers to the writer's specific intention, primary objective or message. Eventually, the how question relates to the elements such as presentation, structure, style, and sharing of ideas. The writing becomes understandable and well organized when it is divided into three sections: introduction, body, and conclusion. This allows readers to easily comprehend the concepts and key ideas. Similarly, the writing style should be clear, formal, concise, and use suitable language and vocabulary. Formal writing requires an avoidance of using weak endings, repetitions, contractions, and multi-word verbs. Moreover, good academic writing needs formal spelling, formal grammar and vocabulary, suitable punctuation, and an authentic citation and reference. There must be a constant flow of ideas presented in academic writing for the sake of maintaining cohesion (connecting the subsequent ideas with the help of features such as repetition, conjunctions, ellipsis, substitution (etc.)), and coherence.

While writing academic writing, students encounter many challenges (i.e.,) paraphrasing, referencing and citations, as well as the lack of cohesion and coherence among sentences and paragraphs. As stated in Faradhibah and Nur (2017), coherence is one of the requirements of a good paragraph besides unity, cohesion, and continuity. According to Odell and Hobbs (2001), when a paragraph has coherence, the ideas are arranged in a logical progression, or an order that makes sense so that the reader moves easily from one idea to another. There is something more we must consider in addition to coherence that is inseparable from it. It is known as cohesion. They both serve as an implicit connection between sentences (Faradhibah, & Nur, 2017). In writing, usually, students do not use certain words or phrases appropriately that are used to connect two sentences, sometimes they refer back to the words or sentences which they previously said or written. These specific words and phrases are known as cohesive devices. To get good cohesion, students are supposed to know the appropriate use of cohesive devices. Students who understand the proper use of cohesive devices will be able to make sentences in each paragraph cohesively stay together and easily follow the progression of ideas and thoughts. Cohesion, which is addressed below, was described by Halliday and Hasan as being essential to academic writing.

2.5.1 Cohesion

Halliday and Hasan (1976) defined cohesion as "relations of meaning that exist inside the text, and that characterize it as a text". Likewise, Hoey (1991) defined cohesion as the way particular words or grammatical elements of a sentence might link that sentence to its predecessors (and successors) in a text. Carter (1998) provided a similar definition by stating that the concept of cohesion covers the linguistic connections between texts. Similarly, Cook (1994) distinguished between coherence and cohesion by demonstrating that cohesion is an expression of some characteristics of coherence, and a signal towards it, instead of its origin or essential outcome. Cohesion is part of discourse because it is the written text and a system of language. It includes the aspects of discourse as it deals with the correctness of sentences by avoiding extra words in spoken and written language. As stated in Rofiq'ah (2019): there is a semantic relationship between an element of the sentence in the text and other elements of the sentence that are significant for understanding it.

According to Gerot and Wignell (1995), cohesion refers to the resources inside the language that maintain consistency in a text. Cohesive connections are hence non-structural relationships that function to bind a text together. Every sentence and word should be coherent with one another. Cohesion between the speaker's or writer's sentence and their utterance is necessary for the sentences or phrases to make sense (Rofiq'ah, 2019). Cohesion refers to various ways that are grammatical, lexical, and semantic in which the components of texts are interlinked with each other. It is a way of using vocabulary and grammar in the sentences to make a connection between them for the sake of providing sequence and flow to the text and helping the readers comprehend the paragraphs more clearly.

Michael Alexander Kirkwood Halliday and Ruqaiya Hassan explained that cohesion is the relation of meanings that lie within the texts. They explained the concept of cohesion as: "The term "cohesion" refers to the relationships of meaning that exist inside a text and establish it as a text; it is a semantic notion. When one interpretation of one discourse element depends on another, there is cohesion. In the sense that it cannot be successfully decoded without access to it, one assumes the other. When this occurs, a relationship of cohesion is established, and the two components—the presupposing and the presupposed—are therefore at least possibly incorporated into a text" (Halliday & Hasan, 2014, p. 4). According to Halliday and Hasan

(1976), a text is created and defined by its cohesion configuration. Reference, substitution, ellipsis, conjunction, and lexical cohesion are all included in their semantic, lexico-grammatical, and structural resources (Hameed, 2008, p. 82).

Halliday and Hasan (1976) described two types of cohesion:

• Grammatical Cohesion

• Lexical Cohesion

2.5.1.1 Grammatical Cohesion

This is the type of cohesion that is realized through grammar. Grammatical cohesion is related to the internal structure of cohesive devices that are employed to establish a link between words, phrases, clauses, and sentences. Grammatical cohesion is further divided into four types (i.e.,) reference, substitution, ellipsis, and conjunctions.

2.5.1.1.1 Reference

Reference is one of the cohesive elements that grammatically establish surface ties between phrases. According to Halliday and Hassan (1976), reference features must be interpreted about other features in the text. The information that is sent for retrieval is specific by reference. The reference is further divided into exophora (situational) and endophora (textual) reference. When the interpretation of the reference falls inside the confines of the text, it is known as an endophoric relation. This connection creates strong connections throughout the text. Anaphora and cataphora are the two types of endophoric relationships (Halliday & Hasan, 1976, p. 17). Anaphora is the idea of assuming that something has already occurred, whether it was mentioned in the previous sentence or not. It is a type of presupposition that refers to a former thing.

On the other hand, cataphoric reference describes the assumption in the reverse manner, with the presupposed ingredient coming next. According to Halliday and Hasan (1976, p. 37), both anaphora and cataphora make use of demonstrative reference, comparative reference, and personal or pronominal reference.

A personal reference is a reference made using the speaker's role in the conversation and the person's category (Halliday & Hasan, 1976, p. 23). Possessive determiners, also known as

possessive adjectives, possessive pronouns, and personal pronouns are the three types of personal clauses. All of these things serve as references, describing a specific object's purpose or function within the context of the speaking act. The first person, second person, and third person— traditionally recognized categories that intersect with the singular and plural number categories—are parts of this system of reference known as person. The person is used here in the specific sense of a role. It contains:

a) Personal pronouns: I, we, you, they, he, she, and it.

b) Possessive adverbs: mine, our, yours, their, his, hers, and it's.

c) Possessive pronouns: mine, ours, yours, theirs, his, and hers.

The information that must be recovered in the case of reference includes the meanings of the reference, the identification of certain things or groups of things that were being referred to, and the consistency of reference. (Halliday & Hasan, 1976, p. 31).

Demonstrative reference is the term for a verbal pointing action (this, these, here, there, that, those, then).

A comparative reference is an indirect comparison that makes use of identity or similarity (Halliday & Hasan, 1976, p. 37). A general comparison is made between two objects that may be the same, similar, or different without taking into account any particular feature (where "different" covers both "not the same" and "not similar"). When anything is expressly compared, it is done in terms of quantity or quality.

2.5.1.1.2 Conjunction

Conjunction serves as a unifying link between sentences or passages of text in a way that shows a coherent pattern between them, even though conjunctive relations are not bound to any particular order in the expression. Therefore, conjunction is the least clearly recognizable relation among the text cohesion-forming methods. There are four subcategories of conjunctions; additive conjunction, adversative conjunction, causal conjunction, and temporal conjunction.

The presupposed item is structurally coordinated and linked by additive conjunctions, which are denoted by the words "and, also, too, furthermore, additionally," (etc.). The terms "not,

not, either, neither," (etc.). are used to indicate that an additive conjunction has the potential to negate the presupposed component. Additionally, it is for opposition; explanatory, such as I mean, that is, in other words, and illustrate a category, such as, thus. They are also included in additive conjunctions for comparison, such as comparable or dissimilar conjunctions.

Adversative conjunctions, which signify "contrary to expectation," include "still, though, only, but, in actuality, rather," (etc.). In addition to denoting a correction to the meaning, the word "contrary" also serves as a language modifier; at the very least, it means "rather" and "I mean." Then it is for signifying ending in closed form; in either, anyhow, in any case, and open-ended form which includes however it is and in any case.

Causal conjunctions are used to express cause and effect including reason, purpose, and result. Causal conjunctions are "because, as a result, so, then, in this respect, for, and for this reason (etc.)." Then it can be applied to emphatic such as in that case, and in that event, and generalized which includes otherwise, under these conditions, or else, reversed polarity, and other conditions.

2.5.1.1.3 Substitution

Substitution is more related to words than meaning. Substitution is also used when a speaker or researcher desires to prevent repeating a lexical item and calls on one of the language's grammatical resources to substitute the item. Nominal, verbal, and clausal substitutions are the three main types of substitution in sentences. The most frequent substitution terms in nominal substitution are "one and ones". The verb "do" is the most often used substitute in verbal substitution. Lastly, in clausal substitution, the most common substitution words are "so" and "as."

Nominal substitution can only be used to replace an item that is the head of a nominal group. The text that came before has the meaning in it. Nominal substitution is similar to "ones." Here is an instance of how the term "one and ones" can be used to replace the phrase "bullets made of."

The verbal substitution in English is the word "do". This functions as a verbal group's head, taking the lexical verb's place. Its place is always in the last group. Additionally, it can be

used for verbs (to do, be, have), processes (to do the same, likewise), propositions (to do, be), and verbal references (to do, be, that).

Clausal substitution is a sort of substitution where a clause, rather than a single clause member, is assumed. Clausal substitution occurs in three different contexts: report, condition, and modality. Regardless of the mood of the presupposed clause, a reported clause that is substituted by so or not is always declarative. So, conditional clauses are often replaced by so and not, particularly after it, as well as in alternative forms like assuming so and supposing not. The last modality is the probabilities related to the speaker's assessment present in the situation.

2.5.1.1.4 Ellipsis

Ellipsis is the method of removing unnecessary information from a text that was previously mentioned and substituting it with nothing. Because "Ellipsis is just zero substitution," it is equivalent to substitution (Halliday & Hasan, 1976). The omission occurs within a text; therefore, it is typically seen as an anaphoric relation. When an ellipsis appears, the part of the text that is missing from the structure of the sentence can still be understood. Similar to substitution, ellipsis comes in three types: nominal, verbal, and clausal. Nominal ellipsis involves leaving out the noun. The verb is omitted in verbal ellipsis. The clausal ellipsis refers to the omission of a clause.

2.5.1.2 Lexical Cohesion

This is the type of cohesion that is based on background knowledge as well as lexical content. "Lexical cohesion is interpreted as it is the cohesive effect that is established by the selection of vocabulary and structure of vocabulary" (Halliday & Hasan, 1976). Lexical cohesion is of two categories (i.e.,) reiteration and collocation. Reiteration is further divided into repetitions, synonyms, antonyms, hyponyms, and meronyms.

2.5.1.2.1 Reiteration

According to Halliday and Hasan (1976), reiteration is something that is two things that have the same referent and may be repeated or have comparable meanings in a text. It involves the same word (repetition), a synonym (near-synonym), a superordinate term, and a general term. Then, in most instances, a reference item usually begins with "the". Reiteration is essentially a type of lexical cohesiveness in which a lexical item is repeated together with the appearance of a

related item, which might be anything from a synonym or nearly synonym of the original to a broad word that dominates the class.

2.5.1.2.2 Collocation

A collocation is a group of vocabulary words that co-occur. It also contains other things like "men" and "women," as well as adjective-noun combos like "fast food" and "run out of money". Collocation is accomplished by linking lexical items that frequently co-occur. There is no semantic basis for it.

The usage of words that are frequently seen together is known as collocation. These words function as a network to convey meanings from a text. The words may have opposing connotations (such as "love" and "hate," "man" and "woman," or "tall" and "short"), be paired terms from the same other series (such as "days of the week," "months," (etc.)), be metonyms (such as "body" and "arm," "car" and "wheel," "hand" and "chin," or "mouth" and "chin"), be co-hyponyms (such as "black (Halliday & Hasan, 1976). The above explanation made it very evident that collocation refers to common occurrence tendencies. The lexical environment where the tendency first appeared is the same. Lexical coherence in texts usually happens in groups or series.

Some studies have been carried out to evaluate and analyze the grammatical cohesion in academic discourse by using various perspectives.

Othman (2019) conducted a study to examine the kinds, occurrences, and reasons behind grammatical cohesive device errors in written paragraphs made by male Saudi English major students majoring in English language at the University of Tabuk in Saudi Arabia's Department of Language and Translation. Forty paragraphs from the 2018–2019 second year first term mid-exams were chosen at random. To assess the written texts submitted by the participants, a mixed design approach combining qualitative and quantitative research technique was employed. The Halliday and Hassan (1976) framework was used to analyze the data. The study's conclusion demonstrated that the written paragraphs produced by the students contained faults in reference, substitution, and conjunction—the three main categories of cohesive devices.

A study was conducted by Ghasemi (2013) to examine how Taiwanese university ESL students employed grammatical cohesive devices. The types and frequency of grammatical

cohesive devices employed in the composition of 30 essays from intermediate and advanced-level students were analyzed by the researchers. The findings revealed that references, ellipses, and substitution were the most commonly employed grammatical cohesive devices in the students' writing. However, they also discovered that there were cases of misuse and excess use and that the usage of these devices wasn't always precise. The study found that although Taiwanese university students understood the value of grammatical cohesion in writing, they still need more thorough teaching and practice to become more proficient at using these devices.

Ahmed (2010) carried out a study which focused on the organizational issues that English-language learners from Egypt have when writing essays in English. The current study specifically attempted to look into students' cohesion and coherence issues when writing EFL essays. A semi-structured in-depth interview and a questionnaire were both part of the mixed method research design. The analysis of the data showed that there are certain issues with consistency and cohesiveness that students have when writing EFL essays.

Another research was conducted by Saadat and Zahed Alavi (2018) which looked at how native speakers and EFL learners used grammatical cohesive elements in two different kinds of paragraphs (cause-and-effect and chronology). It also looked into whether raters' assessments of the paragraphs were impacted by the usage of cohesive devices. Thirty intermediate Iranian EFL students and twenty native English speakers contributed sixty paragraphs to the study. The findings demonstrated that in their cause-and-effect and chronology paragraphs, EFL students employed more references, conjunctions, ellipses, and substitutions. Compared to non-native speakers, native speakers cited more sources in their chronology paragraphs. In general, raters disregarded the paragraphs' cohesiveness. The results implied that coherent grammatical characteristics can affect native and EFL speakers' performance.

Another research was carried out by Ampa and Basri (2019) to describe the grammatical and lexical cohesions which are used in essays written by the students of Makassar Muhammadiyah University. According to the researchers, the students need to use grammatical and lexical cohesions correctly in order to achieve a good essay composition. For that research, the researcher selected 91 essays from the FKIP Unismuh Makassar English Education Department. According to the findings of the study, students employed lexical cohesion strategies including repetition, collocation, general noun usage, and the employment of

synonyms, antonyms, hyponyms, and meronyms. The researcher stated that most of the students used general nouns. Additionally, the students used grammatical cohesion with the inclusion of reference, conjunction, substitution, and ellipsis, with references being the cohesive device that was most frequently employed by the students.

Afzaal et al., (2019) researched to examine the use of grammatical cohesive devices in Pakistani English newspaper "The Daily Dawn". The study used a corpus-based analysis methodology and research found that grammatical cohesion techniques were often used in Pakistani newspaper writers among which reference was the most frequent used type of grammatical cohesion.

In conclusion, the studies reviewed present insightful information about how to apply grammatical cohesive devices in academic writing, especially in the context of Pakistan. Overall, the results indicate that more focus should be placed on the teaching and learning of grammatical cohesive devices in writing courses, particularly in the context of ESL and EFL. Despite differences in the results, it is obvious that using grammatical cohesion devices effectively can improve coherence and clarity in academic writing. The results of these studies can help students and language teachers to work and develop their academic writing abilities.

2.6   Grammatical Cohesion Errors

Grammar cohesion is crucial for academic writing since it contributes to the development of a text that is organized and coherent. However, grammatical errors can hurt the text's clarity and effectiveness. Common grammatical cohesion mistakes include using pronouns incorrectly, making unclear references, and leaving sentences incomplete. These mistakes can cause the writing to lack coherence and clarity, making it challenging for readers to comprehend what the writer wants to convey meaning. Additionally, the absence of continuity in the writing due to improper grammatical use might make it less persuasive and intriguing. Because of this, authors must comprehend grammatical cohesion and know how to use it in their writing.

A few studies have been discussed below which have shown that grammatical cohesion errors are frequently seen in academic writings.

Hubbard, H. (1989) conducted a study to discover multiple problem areas by analyzing coherence faults in academic writing by students. Students can increase their accuracy and

efficacy in applying the English coherence system by specifying the categories of the framework and elucidating how certain faults result in processing issues for readers. Having an audience and feeling for the reader over one's shoulder are essential. Although coherence and cohesion are not the same thing, teachers can assist students in recognizing and removing these mistakes by raising awareness of these mistakes.

Moreover, in the descriptive qualitative study, Wilfitri, E., & Fatimah, S (2020) asserted that students in the English department at Universitas Negeri Padang had their academic writing faults and coherent device usage examined. 25 academic writing samples from the 2017 academic year were used in the study. These samples were chosen at random. According to the findings, students employed a limited quantity of each cohesive device type, although using all of them. The analysis also discovered that 447 consistent pronouns, 368 repetitions of crucial terms or nouns, and 102 transition signals were all employed correctly.

Samadian and Mohseny (2019) conducted a study to determine the problems Iranian intermediate EFL students encounter when writing cohesively and coherently. A mixed research methodology was employed in the study, which included four interviewers, ten experienced teachers, and forty descriptive essays. The findings demonstrated that the participants' writing lacked cohesiveness and coherence due to a lack of practice, encouragement, and criticism. This implies that more study is necessary to address these concerns and that there is a void in the literature regarding the composition of descriptive texts by Iranian EFL learners.

Additionally, Guo X (2019) looked at the usage of grammatical cohesive devices in the academic English writing of Chinese postgraduate students. The findings indicated that the students had trouble using cohesive devices, especially pronouns and conjunctions, which had an impact on the coherence and clarity of their writing. The researchers proposed that for the students to develop their writing skills, they required more direct teaching and practice in the application of cohesive devices.

As discussed above, the consistency and clarity of academic writing can be significantly affected by grammatical cohesion errors. These errors happen when authors do not employ the right grammar to connect phrases and ideas inside a work, which can lead to a disconnected or

unclear presentation of information. Therefore, a crucial part of raising the standard of academic writing is spotting and fixing grammatical coherence errors.

Few researches have looked into the frequency and forms of grammatical cohesion errors in Pakistani academic writing.

Additionally, Latif et al., (2023) to address the difficulties Pakistani postgraduate students have with academic writing. Eighteen master's and doctoral students from Multan City universities participated in the study; they were chosen via semi-structured interviews. The results showed that vocabulary, grammar, incorrect pronoun usage, and sentence coherence are areas where pupils struggle. According to the report, politicians and educational institutions should be aware of these problems and take steps to improve academic writing skills through resources and English language instruction. Students will benefit from this as they pursue their academic goals.

Yasmin et al., (2023) conducted a corpus based study to examine how conjunctive cohesive links were used in opinion columns and pieces published in November 2022 in Pakistani English newspapers, using Halliday and Hasan's (1976) definitions and categories as a guide. Using the corpus program AntConc (4.1. 4), a corpus comprising 141 columns from DAWN and The Express Tribune was created and examined. Conjunctive adjuncts of extension and enhancement types were found to be more frequently used in the study. It is discovered that the columnists of the two English-language Pakistani newspapers prefer combinations of the additive, causal, and adversative subcategories. There are various variations in the selection of least used conjunctions between the most commonly used conjunctions, although the tendency of usage for the most commonly used.

In conclusion, errors in grammatical cohesion are frequent in academic writing in all languages and cultures. The results of this research may therefore have greater implications for academic writing instruction and learning across a variety of contexts. Overall, strengthening both the clarity and coherence of academic writing needs an emphasis on grammatical cohesion, which is a crucial aspect of both clarity and coherence.

2.7   Causes of Grammatical Cohesion Errors

Grammatical cohesion is a crucial element of academic writing as it improves the quality of a written text by enhancing its coherence and clarity. Errors in Grammatical cohesion may cause miscommunication and incomprehensible texts, which may impact the quality of academic discourse. There are many different reasons why grammatical cohesion mistakes occur, and they might differ from writer to writer. Some of the major causes of inappropriate use of grammatical cohesive devices in academic discourse are discussed below.

One of the major causes of grammatical cohesion mistakes is a lack of knowledge of grammar rules. Many students might not have received sufficient education in grammar conventions, which might cause mistakes in their writing. Students who speak English as a second language might find it difficult to comprehend and correctly use grammatical structures. Numerous students, especially non-native English speakers, have difficulty with grammar conventions including using tense, use of pronouns, and subject-verb agreement which may impact the coherence and cohesion of their writings. This lack of knowledge can result in mistakes including using pronouns incorrectly, using the same words repeatedly, and using the wrong connectors (Hyland & Tse, 2007). Similarly, students from countries that do not speak English frequently experience difficulties with grammatical cohesive devices, particularly when it comes to the usage of prepositions and pronouns.

Another cause that may lead to grammatical cohesion errors is a lack of familiarity with academic writing rules. Numerous students are not familiar with the standards of academic writing, including the use of proper citation, formal language, and proper sentence structure. This lack of understanding can lead to mistakes using cohesive devices like transitional words and conjunctions which may impact the coherence and coherence of the written text.

Mother tongue interference, also known as interlingual transfer, is another reason why grammatical cohesion is misused in academic writing. This happens when the writer's native language's grammatical norms vary from those of the target language, leading to mistakes in verb tenses, word order, and sentence structure (Selinker, 1972). Similarly, Ellis (1994) asserts that interlingual transfer is particularly prevalent among second language learners, who may attempt to apply the grammar rules of their native language to the target language, leading to problems in grammatical cohesion.

Intraligual transfer or overgeneralization is another factor behind the inappropriate use of grammatical cohesive devices. When grammar rules are used inappropriately or outside of their proper context, this is known as intralingual transfer or overgeneralization. According to Odlin (1989), students might use a certain grammatical rule when it is inappropriate, leading to faults in cohesion. Overgeneralization is a frequent cause of grammatical mistakes in language learning, and it can result in mistakes including inappropriate use of conjunction, improper pronoun reference, and inappropriate verb tense use (Rutherford & Smith, 1985).

Improper writing practice is another reason for committing mistakes in grammatical cohesion use as students who do not write often may find it challenging to create a well-written work. They may also be unable to recognize and fix grammatical cohesion issues if they do not receive feedback on their work (Hinkel, 2003).

Few studies have been carried out to investigate the causes of grammatical cohesion errors in academic writing. Nasser (2017) for instance, carried out research to look at the kinds and reasons of cohesion errors committed by Yemeni students in their writings. The study discovered that misuse of references, conjunctions, ellipsis and substitution were found.

Another study was carried out by Aguieb, F., and Bouaziz, S. (2017) to look at students' challenges with employing cohesive and coherent devices. It applies the coherence framework of Halliday and Hassan (1976) to 23 argumentation articles. Based on 1003 items, the data reveals that students frequently employ grammatical cohesive devices (GCDs). The most prevalent type of GCD is referential, which accounts for 56% of the total. Conjunctive connections, on the other hand, are used less frequently (35%), followed by substitutional and elliptical ties (6% and 3%). There are 341 instances of lexical cohesive devices (LCDs), with 94% of the items being repetitions. Overuse, ambiguity, and misuse are among the issues that arise.

Similarly, Zahara et al., (2023) carried out research to look at the kinds of grammatical cohesion errors produced by EFL (English as a Foreign Language) students. The results demonstrated that the students used all five categories of cohesive devices in their compositions, with reference appearing most frequently, then conjunctions, lexical coherence, ellipses, and substitutions least frequently. The students recognized conjunction, reference, and lexical coherence as the three categories of cohesive devices that presented difficulties. Further

investigation revealed four explanations for why the learners struggled to use the cohesive devices: plain mistake, ignorance, abuse, and little writing experience.

In conclusion, there are numerous reasons why grammatical cohesion mistakes occur in academic writing, and these reasons can differ from writer to writer. Among the main causes of errors in cohesion are ignorance of grammar standards and academic writing traditions, writing anxiety, mother tongue interference (interlingual transfer), and overgeneralization (intralingual transfer) (etc.). Students' use of grammatical cohesive devices in academic writing may be improved by addressing these characteristics through focused instruction and assistance.

2.8   Corpus Linguistics

Corpus is the collection of texts and the study of the use of language in a real life or naturally occurring language and corpus is software in which we can store and accumulate the language for some linguistics research and experimental studies such as critical discourse analysis, multidimensional analysis, and stylistic analysis (etc.). In 1960, this method of analyzing data by using corpora was first used but it was not much used until the 1980s. Corpus linguistics is not used in all fields of linguistics therefore it is a limited field. Corpus linguistics deals with the compilation and text analysis which describes the structure, nature and use of a language. One of the most important and rapidly expanding areas of research in linguistics is the use of large, computational bodies of text for linguistic analysis and description (Kennedy, 2014). Some linguists use corpus linguistics as a tool for investigating the linguistic features of a specific language and some linguists use it as a theory. Corpus linguistics is a combination of both theory and a tool, sometimes used as a theory and sometimes as a tool.

Wilson (1996) broadly defines corpus linguistics as "the study of language based on examples of real-life language use" (p.1). More specifically corpora are large representative bodies of text which have been electronically encoded. This allows the text to be loaded into purpose-built computer software which then performs calculations, quickly and accurately revealing linguistic patterns (Baker, 2006). Moreover, "corpora have been used to facilitate critical analyses of text, concerned with the uncovering of ideologies and power asymmetries which is of particular importance to this study" (Baker, 2006). According to O'Keeffe & McCarthy (2010), corpus linguistics is used to answer more general research problems in fields

including health communication, forensic linguistics, discourse analysis, literary stylistics, forensic linguistics, pragmatics, and speech technology.

Biber et al., (2010) asserted that corpus linguistics, a research strategy that has emerged in recent years is used to assist empirical studies of language variation and usage, it is now possible to produce conclusions that are considerably more generalizable and valid than would otherwise be possible. Hence, corpus linguistics is an approach that can be used to investigate the language use. It uses computer-assisted techniques to analyze the transcribed speech and large pieces of writing to describe the unusual and typical language choices that writers and speakers make in specific situations. We can use various types of corpora for certain linguistic researchers (i.e.,) synchronic and diachronic, general and specialized, comparable and parallel, written and spoken, monolingual and multilingual, dynamic and monitor, and static and sample (etc.). Therefore, every type of corpus is different from other types.

Significant corpus-assisted studies that have been conducted to analyze the use of cohesive devices in writing have been reviewed to support this research.

Zhou et al., (2009) using a corpus-based methodology, conducted a study to examine how cohesive devices changed from English to Chinese in Chinese medical texts (EMTs) and the Chinese translation texts (CTTs) that followed. In order to analyze the data, paired t-tests were conducted on a parallel corpus consisting of 15 EMTs and 15 CTTs. The findings demonstrated that while there are some differences in cohesive device use between EMTs and CTTS, they are mostly limited to variations in reference employment with respect to occurrence frequencies. For accuracy, logicality, and clarity in the Chinese translation, most coherent devices are preserved.

A research study was carried out by Jamalzadeh and Biria (2017) for the sake of finding out the cohesive conjunctions in medical research papers that were written by Iranian and non-Iranian writers having various nationalities. For this research, two corpora of medical research were selected with 400 articles in each corpus. Corpus-based technique is used to find out the frequency of types of cohesive conjunctions in the selected articles. The results showed that in both corpora, additive conjunctions were frequently used and temporal conjunctions were used at least. Iranian writers used additive conjunctions followed by adversatives and casuals

contrastively, the Non-Iranian authors used additive conjunctions followed by casuals and adversatives took third place.

Another research conducted by Ahmed et al., (2019) stated that writing needs an appropriate and strategic usage of language with structural correctness and communicative potential. The structural correctness and communicative potential in texts are created with the help of cohesion and coherence. The researcher conducted this research to determine the cohesive devices in the abstracts of Pakistani research articles to identify the most frequently used cohesive devices by the writers and what function those cohesive items play in the texts. The researchers took 50 abstracts from two Pakistani research journals developed a corpus and analyzed it with the help of AntConc (3.4.4.0). This research concluded that reference was mostly used by Pakistani researchers to achieve directive and referential functions. The results of this study also showed that the texts were organized on a syntactic level and the study implied that the writer should organize the texts on a semantic level also.

According to Qasim et al., (2020), conjunctive cohesion seems to be a crucial linguistic sign that writers adopt to establish a logical connection between the elements of the text (Halliday & Hasan, 1976). The researcher conducted this research to explore how conjunctive cohesion is used in Pakistani Social science articles. The study is corpus-assisted which consists of 250 articles taken from five disciplines of social sciences (i.e.,) English literature, applied linguistics, sociology, psychology, and business administration. The conjunctive cohesive devices were first and then compared and studied functionally. Researchers used a model for conjunctive cohesion and the results of this study showed that every writer used extension cohesion more than other types of conjunctions. Among the extension conjunctions, additive conjunction was most frequently used in all academic discourse. Some other types of conjunction were also used by the writers which include enhancement and elaborative conjunction and causative and exemplification conjunction.

A corpus-based study was conducted by Xu and Zhang (2023) to compare the usage of grammatical cohesive devices in research articles written in Chinese and English. The study examined a corpus of 100 research articles from different academic fields, 50 of which were in Chinese and 50 in English. The data extraction and analysis were done by the researchers using the AntConc software. The findings revealed that a variety of grammatical cohesive devices,

such as references, substitutions, ellipses, conjunctions, and lexical cohesion, were utilized in both Chinese and English research articles. However, the kinds and frequency of cohesive devices utilized in the two languages varied. The study also discovered that the employment of grammatical cohesive devices differed between various academic fields and parts of research articles.

In conclusion, the above-mentioned corpus-based studies discussed the significance of cohesive devices in academic discourse which were written in different languages and from distinct academic domains. The results of these studies shed light on the similarities and differences in the use of grammatical cohesive devices across various academic disciplines and languages. By using corpus-based methodologies, the researchers have been able to pinpoint the most common cohesive device and their functions in academic discourse. With the help of these findings, the writers may be able to develop their writing skills and create more coherent, well-organized, and effective academic writings.

2.9   Tools for Measuring Cohesion

The ability to apply cohesive devices effectively is crucial for students to generate work of excellent quality since cohesion is a vital component of good academic writing. Several computational methods have been created recently to assist researchers and teachers in assessing the cohesion of texts. These instruments can help spot cohesiveness patterns and for analyzing how effectively students use them in their writing. These tools include both manual and complex computational algorithms for textual analysis.

Coh-Metrix (Graesser et al., 2004) is a prevalent tool for examining the cohesion of text. This software offers a thorough array of measurements for assessing numerous elements of text cohesion, including referential coherence, syntactic complexity, and lexical cohesion. Coh-Metrix has been widely used in studies on a variety of subjects, including text comprehension, writing excellence, and reading difficulty. However, using the program effectively requires a high level of expertise, and analyzing large corpora could take some time.

Another tool for measuring cohesion is AntConc (Anthony, 2019) which is an open-source and free software for measuring cohesion that offers a variety of text analyses, such as frequency analysis, collocation, and concordance analysis. AntConc has been used in several

researches to find cohesive elements in written texts, like lexical cohesion and reference. The program is user-friendly and enables quick analysis of larger corpora. AntConc does, however, have some drawbacks, including its inability to analyze non-textual data and its excessive reliance on surface-level language use patterns.

The Cohesion Calculator is another tool that calculates cohesion based on how frequently certain cohesive elements, such as pronouns, references, lexical chains, and conjunctions are used. It is a web-based program that enables users to enter a text and get an evaluation of its cohesion.

TAACO is another software that does automatic cohesion analysis on texts. It generates a score for the overall cohesion of a text by examining the distribution and frequency of cohesive devices like connectives, pronouns, and lexical chains. TAACO is capable of analyzing both spoken and written texts.

Cohesion Network Analysis is one of the tools that show the connections between words in a text. It makes use of network analysis tools to pinpoint a text's strongest points of cohesiveness and to draw attention to its weaker points.

Textalyser is another tool that examines texts for a variety of linguistic elements, such as cohesion. It gives a thorough description of the lexical and grammatical elements of the text, together with the frequency and placement of cohesive devices.

Some other tools for measuring cohesion are the Text Cohesion Analysis Tool, Cohesion Index, and Cohesion Profile. Each of these instruments has specific benefits and drawbacks depending on the study objectives and methodology being employed.

Even though there are numerous tools for evaluating text cohesion, in the present study, AntConc (3.5.8) was utilized to analyze the frequency of cohesive devices in students' academic discourse from NUML's Faculty of Social Sciences. AntConc provided a simple and effective way for analyzing the vast corpus of data, although having some limitations. AntConc is a popular and widely used tool that can offer insightful information about how students use cohesive devices in their academic discourse. Future research may examine the application of additional tools, like Coh-Metrix, to further examine cohesion devices in academic discourse.

2.10   Research Gap

Studies have investigated the cohesive devices in various types of written discourse in different countries. Fewer researchers in Pakistan specifically focus on analyzing the cohesive devices in academic writings through discourse analysis. Qasim et al., (2021) conducted a research study to find out one type of grammatical cohesion (i.e.,) conjunctions in academic writing. Likewise, Qasim et al., (2020) also researched to find out the conjunctive cohesion in Pakistani research articles. Asghar et al., (2021) conducted a study by using ideational grammatical metaphor technique to find out cohesion and coherence in Pakistani expository argumentative essays. Although AntConc has been used in previous research to assess grammatical cohesion, insufficient has been researched on the frequency and types of grammatical cohesion problems that Pakistani students make when writing academic discourse.

It is clear from the review of literature regarding cohesion in academic writing that research in the field of cohesion in Pakistan is less. Therefore, using AntConc as a method for measurement, this study intended to add to the body of literature by particularly analyzing the frequency and types of grammatical cohesion errors in MPhil theses written by the students in FSS at NUML as the students from social sciences encounter many difficulties in writing a clear, well-organized, coherent and properly framed piece of writing. The findings of this study may greatly increase our knowledge of cohesion issues that students in the chosen departments face in creating clear, well-organized, cohesive, and appropriately framed as well as for developing interventions to enhance their writing abilities.

2.11   Theoretical Framework

The present research used the integrated model of cohesion proposed by Halliday and Hasan (1976). The model of analyzing cohesion by Halliday and Hassan contributes to the various forms of cohesive relationships that can be formally established inside a paragraph. According to Halliday and Hasan (1976), cohesion is the semantic relationship between one textual piece and another. When the components are connected and the reader finds the text to be meaningful, it is cohesive. As stated in Bahaziq (2016), cohesion occurs when one item presupposes another, or when the interpretation of one depends on the other (Halliday & Hasan, 1976). Semantic connections, also known as "relations of meanings that exist inside the text and that identify it as a text," are related to the idea of cohesion in texts. When a previously

mentioned item is mentioned more than once in a text and is dependent on another element, it is considered a tie. Sentences or utterances without semantic connections would appear to have no link to one another and might not even be considered texts (Hameed, 2008).

Halliday and Hasan (1976) subdivided cohesion into two categories which are grammatical cohesion and lexical cohesion. Grammatical and lexical devices are the two basic types of cohesive devices that hold a paragraph together. Grammatical cohesion is the relationship of sentences created by grammatical aspects. The types of grammatical cohesion are reference, substitution, ellipsis and conjunction. Lexical cohesion, on the other hand, is the association of sentences created by lexical elements, and it includes reiteration (including repetition, synonyms and near-synonyms) and collocation (Yuhaimi, 2019).

Additionally, according to Halliday and Hasan (1976), cohesion is a semantic relationship based on the basic idea of presupposition: one element presupposes another that is present somewhere in the text (anaphora or cataphora) or the context of a situation (exophora), and that is crucial for text interpretation. The presupposition is realised on three levels: the semantic level (as in the case of reference), which possesses the semantic attribute of definiteness and specificity; the lexicogrammatical level (as in the case of substitution and ellipsis); and the grammatical level (as in the case of conjunctions). The three categories of reference such as personal, demonstrative and comparative involve presuppositions; they refer to certain information items in the text whose retrieval from other sources is essential for interpretation. Ellipses and substitutions both presuppose the presence of specific textual components. Repetition includes both the lexical repetition of an item and the use of synonymy or nearly synonymous terms, such as superordinate or general terms. Collocation is a type of lexical cohesion which is achieved through the connection of lexical items that regularly co-occur within and throughout the sentences (Hameed, 2008).

Based on the above discussion, the current study aims to investigate the occurrence of grammatical cohesive patterns in the academic discourse in FSS at NUML, as well as the occurrence and reasons behind their inappropriate use. Halliday and Hasan's cohesion model has been used to give a comprehensive analysis of cohesion issues in academic discourse as well as their causes.

The next chapter explains the research methodology and research tools used for the present study.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter comprises a brief discussion of the research technique, corpus selection method, research design, conceptual framework, sampling, data collection method; research tools and data analysis strategies. It examines the rationale for using the research tools, the process for gathering data, and data analysis techniques. The current research is planned and systematic. Data for the present research has been analyzed by using the analytical framework of M.A.K Halliday and Ruqaiya Hasan (1976).

3.1   Research Design

In the present corpus-based study, a mixed-methods approach to research has been used. The first research question has been addressed with a quantitative analysis of the data, whereas for answering the second research question, the qualitative analysis method has been carried out. For quantitative analysis for the present study, the researcher has used the computational freeware software AntConc (3.5.8) to calculate the frequency of each cohesive device used in the targeted sample. Whereas, the deviation of cohesive devices by the students from social sciences has been described and analyzed qualitatively by using the analytical framework of M.A.K Halliday and Ruqaiya Hasan (1976) to interpret their usage within their context. The methodology used in this study is consistent with linguistic principles (cohesion, semantic relationships, and contextual appropriateness). The use of cohesive devices to effectively connect and relate sentences and paragraphs is emphasized by linguistic principles as being crucial for written discourse. By these criteria, an investigation of cohesive devices has been carried out to determine their suitability and efficacy in establishing coherence.

3.2   Conceptual Framework

The current study has used a mixed-methods approach that includes both quantitative and qualitative methods. This research has been categorized into two phases. In the first phase, the data analysis of quantitative data took place while in the second phase the analysis of qualitative data was done which was based on the result of the quantitative results. The research has attempted to explore the frequency of grammatical cohesive devices in the academic discourse (theses) of FSS at NUML. Chapter five of the thesis has been chosen because it was implied that the researchers mostly use cohesive devices in the conclusion part of the thesis. Halliday and Hasan's model of cohesion is the most appropriate model that can be used in this research to explore the occurrence of cohesive devices in the academic discourse.

Cohesion is a relationship between a text's parts that is essential to its understanding from a semantic perspective as defined by Anwar (2017). It refers to how the cohesive devices connect the sentences through which readers can easily understand the semantic connection between the sentences. A writer cannot avoid using cohesive devices in academic writing because a text is formed from sentences and paragraphs and they must be well organized and well connected to make logical sense.

M.A.K. Halliday and Ruqaiya Hassan proposed a cohesive model in 1976. According to them when two elements in a text have a common meaning, such relationship is called cohesion. When the components are connected and the reader finds them to be significant, a text is called cohesive. Cohesion is concerned with grammar as well as vocabulary. Therefore, cohesion is divided into two types that are as follows:

1. Grammatical Cohesion

2. Lexical Cohesion

Grammatical Cohesion is a type of cohesion that is based on structural content. Grammatical cohesion is further divided into four types: reference, substitution, ellipsis, and conjunction.

Reference is a semantic relationship in which the identification of the referent specifies the meaning, and the context serves as the source of identification (Maulida et al., 2020). The

three categories of reference (i.e.,) personal, demonstrative, and comparative involve presuppositions since they refer to specific information items in the text whose retrieval from other sources is essential for interpretation. Personal reference includes personal and possessive pronouns. The demonstrative references point out something else in a text. The comparative references are also referential because they are used to compare things.

Moreover, ellipsis and substitution both assume the existence of specific textual constituents. Nominal ellipsis presupposes the head noun. Verbal ellipsis may presume either the lexical verb or the verbal group, while clausal ellipsis presupposes the complete previous clause. The nominal substitution presupposes a noun. The verbal substitution assumes the lexical verb. The clausal substitutes presuppose a complete clause.

The conjunctions that are divided into additives, adversatives, causal, and temporal also contain presupposition since they refer to what comes before and less frequently to what comes after and "create linkage."

The second type of cohesion is lexical cohesion which is a type of cohesion that is based on lexical content and background knowledge. Lexical cohesion is categorized into the following two groups. Reiteration is the use of the same reference in two different contexts to repeat a lexical term or use a synonym (Maulida et al., 2020). It includes synonyms, general words, same word repletion, and superordinate. A collocation is a group of vocabulary words that often appear together. There are adjective and noun combinations in it (Bahaziq, 2016).

Eventually, the conceptual framework of the present research was based on the cohesion model proposed by Halliday and Hasan (1976). According to this model, cohesion has two types (i.e.,) grammatical cohesion (reference, conjunction, substitution, ellipsis) and lexical cohesion (reiteration and collocation). In this model, the variable of the present research such as grammatical cohesion has been discussed. Therefore the researcher adopted this model as a theoretical lens to investigate the most common grammatical cohesive patterns (including reference, conjunction, ellipsis, and substitution) used by the students from chosen departments in the faculty of social sciences at NUML.

3.3   Corpus Selection

Corpus of the current study includes 30 MS/MPhil theses written by the students of social sciences during the year 2020-2021. The corpus contains 10 theses from three disciplines of

social sciences Education, International Relations and Pakistan Studies. Chapter five is chosen for analysis out of all the chapters of the thesis since chapter five is credible to have been written by the students themselves which would not cause the findings of the study to be rejected. The following criteria have been used to select the theses for the current study:

1. All the theses were written by students from the faculty of social sciences.

2. The same number of theses from the three selected disciplines during the year 2020-2021.

3. All the theses were taken from NUML.

4. Accessibility (online).

3.4   Sampling

For the current study, a technique called purposive sampling has been employed. The samples for the present study have been selected from three disciplines of social sciences Education, International Relations, and Pakistan Studies. The samples have been taken from these disciplines because, at NUML, MS/MPhil theses are written only in these disciplines of social sciences. The selection of samples from these three disciplines has been done with this purpose in mind. Thirty theses have been chosen to evaluate the data and samples of the year 2020-2021 theses from each discipline have been used.

3.5   Data Collection

Data has been collected from the NUML Online Repository in digital form. Theses of the selected disciplines have been uploaded to the NUML Online Repository. Thirty MS/MPhil theses have been chosen from social sciences for data collection. Ten theses from each discipline have been selected during the year 2020-2021. Chapter 5 of these selected theses has been taken for data analysis. The theses from the chosen departments were accessed and thoroughly examined to find any formatting problems that would affect the accuracy of the data. In this situation, special attention was given to special characters, font inconsistencies, and spacing issues. Formatting issues among all theses were corrected to maintain uniformity and consistency. These data-cleaning methods were used to prepare the collected data for additional analysis, ensuring the reliability and validity of the results. For data cleaning, the researcher used

manual methods. This included using standard font styles, altering the indentation and spacing, and making sure that special characters were properly represented. To make the manual data-cleaning procedure easier, the researcher used word processing software, Microsoft Word that provides features for formatting and adjusting theses. The software's functions, including formatting options, search and replace, and spell-checking, were effectively used to improve the formatting throughout the selected theses. This procedure was meant to remove any bias or mistakes that might have been caused by irregular formatting.

3.6   Research Instruments

The researcher used the two research instruments listed below.

     i.   Manual textual analysis

    ii.   Computational corpus analysis

Ten theses from each discipline of the thirty theses chosen by purposive sampling have been manually read after being chosen. Every instance of cohesive devices used in the thirty has been recorded in a list of classified columns. Later on, the entire corpus was subjected to computational analysis to determine the frequency of each distinct cohesive type individually which were included in the corpus.

3.6.1   Textual Analysis

"In linguistics, a text is any spoken or written speech that is organized into a unified whole. The semantic unit of language, or a unit of meaning rather than form, is a text rather than a grammatical unit," (Bahaziq, 2016). A text is made up of grammatically coherent sentences where texture brings cohesion and unity as well as differentiates a text from a non-text. The unity and cohesion in a text can be built by the use of cohesive devices that are responsible for connecting ideas within the sentences and paragraphs. As asserted by Anwar (2017), a text is useful for communication which satisfies seven criteria of textuality that are, intertextuality, intentionality, informitivity, acceptability, situationality, cohesion and coherence. Textual analysis helps in understanding how people communicate their thoughts ideologies and experiences through the texts. The basic purpose of textual analysis is to describe the structure, content and function of messages within the texts.

The present research has taken the view of the text as a product as this research is concerned with theses as printed texts in which the analysis has individually focussed on the product as words on the page.

For this purpose, the researcher first collected the data by selecting 30 MPhil/MS theses from three disciplines of FSS i.e., Education, International Relations, and Pakistan Studies. These theses have been taken from the NUML online database for the year 2020-2021. Then the selected data has been pre-processed by converting the theses from PDF to plain text format. After that, cohesive devices in the selected academic discourse have been annotated for which Halliday and Hasan's (1976) cohesive model has been used to identify four types of grammatical cohesion, namely reference, substitution, ellipsis, and conjunction. Those cohesive devices were then tagged for further analysis.

Overall, the process of textual analysis involved steps including data collection, pre-processing, and annotation to identify the cohesive patterns in the selected academic discourse.

3.6.2 Corpus Analysis

A corpus is essentially a collection of samples of real language, either spoken or written, and a corpus of language typically includes countless words in it. They represent convenient experiences of language during some incredible circumstances and thus provide a strong base for meaningful descriptions of specific genres. Despite not requiring any new theoretical language constructs, they serve as an effective substitute for intuition since they both serve as a reliable means of evaluating the accuracy and validity of intuitions and serve as a catalyst for the development of many additional new intuitions. Simply said, a corpus provides intuition and data with a centralized place where they may exist.

The research scholars frequently use corpus linguistics to examine the enormous collections of texts that have been electronically saved, which enables their research to better describe typical language use. Additionally, they can concentrate on certain words, phrases, or patterns based on how frequently they occur together. According to Biber (2010), corpus linguistics typically uses two main types of research methods: corpus-based and corpus-driven. The present study was corpus-based because it focused on the strategies to study real language use findings in a language commonly used by Pakistani English postgraduate students in

academic writing. For the present study, the researcher has used AntConc (3.5.8) which is computational software reliable to find out the word tokens and word types in a corpus, also it is used to find out the frequency and collocations.

As defined in Froehlich (2015), AntConc is a freeware, multiplatform program for data-driven learning and corpus linguistics research. It works with any computer running Linux, Macintosh OS X, or Microsoft Windows (tested on 10.4.x, 10.5.x, and 10.6.x), as well as Microsoft Windows (tested on Win 98/Me/2000/NT, XP, Vista, and Win 7). It is created in Perl using the PerlApp compiler from Active State to produce executable files for the various operating systems. According to Anthony (2005), AntConc has effective concordance, cluster tools, words and keywords frequency generators, a word distribution plot and a lexical bundle analysis. Additionally, it provides a very user-friendly, intuitive layout and gives users the option between effective regular searches and wildcard searches.

In line with the research delimitations, this study has focused on identifying and analyzing the use of grammatical cohesive devices in MPhil/MS theses from three disciplines of social sciences. The cohesive devices in the chosen theses were identified and highlighted by the researcher by using corpus tools, particularly AntConc (3.5.8).

The selected theses were initially uploaded into AntConc (3.5.8), where the "word List" tool was used to find the words that appeared most frequently throughout the corpus. Then the types of grammatical cohesion including reference, conjunctions, ellipsis, and substitution were manually identified and chosen by the researcher. The researcher used AntConc's "concordance" feature to find instances when words or phrases referred to things that had already been addressed. Each concordance line was then personally examined by the researcher to make sure it was an appropriate example of a reference. To identify the conjunctions, the researcher used the "collocates" feature to identify the words which were used with the conjunctions. The "Clusters" feature in AntConc was used by the researcher to group words with similar meanings or functions for ellipsis. After that, each cluster was personally examined to make sure that it contained authentic examples of ellipsis. Lastly, to identify the substitution, the researcher identified examples where a pronoun or another word was substituted in place of a previously specified noun or noun phrase using AntConc's "Concordance" function. Each concordance line

was then personally examined by the researcher to make sure it was an appropriate instance of substitution.

The rationale behind using AntConc (3.5.8) as the computational tool for this research is its proven relevance to linguistic analysis, specifically in investigating the presence of cohesive devices in written discourse. AntConc's features, such as its frequency and concordance tools, enable it to identify and quantify linguistic patterns in a corpus, which is in perfect alignment with the objective of the research. Its user-friendly interface, which provides access for researchers with different levels of technical experience and facilitates an effective analytical process, is one of its noteworthy characteristics. AntConc is a freeware program created specifically for corpus linguistics research. It can process enormous datasets, produce concordances, and evaluate word frequencies, all of which are crucial for examining the frequencies of cohesive devices in academic discourse. Furthermore, the software's prevalence in the field of linguistics and the research community's support for it strengthens its credibility and consistency, confirming its function as an efficient tool for the accurate analysis of cohesive devices in linguistics in the selected theses. In conclusion, AntConc was selected because of its adaptability, simple use, compatibility with corpus-based analysis techniques, and its demonstrated effectiveness in linguistic research.

Thus, by using the computational features of AntConc, the researcher managed to appropriately identify and highlight the cohesive devices i.e., reference, conjunction, ellipsis, and substitution in the chosen theses.

3.7   Data Analysis

The methods of corpus linguistics and the analytical framework of cohesion have been applied in the current study. Corpus linguistic approaches allow researchers to discover features of language that are challenging to identify using other techniques because language is characterized by being overly repeated, observed too often or rarely, depending on the method.

Firstly, the researcher conducted a manual textual analysis method of thirty texts included in the corpus, through which the researcher easily traced the cohesion problems in the sample. Secondly, theses from the departments of Education, International Relations, and Pakistan Studies have been converted from PDF files into text files by using AntFile Converter (2.0.2)

because AntConc only takes text files. Computational software AntConc (3.5.8) has been used to find out the frequency of cohesive devices in chapter five of the selected theses. Each thesis has been analyzed individually to see how the students of these disciplines wrote their theses, which kinds of cohesion they used, and which kinds of cohesion were not used appropriately. Lastly, all the selected theses have been compared to see the similarities or differences in the use of grammatical cohesive devices and it was also examined that students of which department have used cohesive devices appropriately and whose discourse lacks cohesion the most. In the end, an overall analysis has been made to see the overall usage of cohesive devices within the contexts of their works. The detailed analysis of selected data has been presented in the next chapter.

CHAPTER 4

DATA ANALYSIS

This chapter has carefully examined and analyzed the academic discourse collected from various departments in the faculty of social sciences at NUML. It has specifically analyzed grammatical cohesion and has demonstrated how these devices function as connectors for a variety of clauses and phrases, how they establish connections, and how they arrange these clauses and sentences into the overall structure of the text. Furthermore, in this chapter, the inappropriate uses of such grammatical cohesive patterns and their causes have been discussed. For analyzing the data, the Cohesion model proposed by Halliday and Hasan (1976) has been used by the researcher.

The following table shows the size of the corpus in three disciplines including the departments of Education, International Relations, and Pakistan Studies.

Table 4.1

Size and Distribution of Corpus of Academic Discourse in Social Sciences

Name of Discipline	No. of Selected Theses	Word Tokens	Word Types
Education	10	33,435	3,086
International Relations	10	53,270	6,051
Pakistan Studies	10	36,098	4,475
Total	30	122,803	13,612

In the initial stage of data analysis, thirty theses from three selected disciplines were collected from the NUML Online Repository and chapter five of each thesis was separated which were thoroughly read by the researcher. After that, the researcher used AntFile Converter (2.0.2) to convert the PDF file into text form because AntConc (3.5.8) only accepts text files. To create a comprehensive concordance for each item, AntConc (version 3.5.8) was used by the researcher to examine the prevalence of cohesive devices in the chosen theses. The researcher used a systematic process to enter the grammatical cohesive devices to produce a comprehensive concordance. First, the researcher identified numerous kinds of grammatical cohesive devices that support the text's coherence and cohesion, including references, conjunctions, substitution, and ellipses. By using the concordance "search" tab to enter each type of grammatical cohesion separately, the researcher was able to find them and analyze those occurrences where those cohesive devices appeared in the discourse. Then by using AntConc (3.5.8), the frequency of each type and sub-type of grammatical cohesion was recorded with the help of the concordance feature. To find out the frequency of each type of grammatical cohesion, the researcher entered the specific cohesive device in the "search" tab and AntConc scanned the selected corpus and identified all occurrences of the searched cohesive device. The frequency count feature in AntConc represented the number of times the types and sub-types of grammatical cohesion appeared in the selected corpus. After collecting the frequency of each type and sub-type of grammatical cohesion, the researcher entered it in a tabular form for better results. After that, manual textual analysis was done to see the misuse of each type of cohesion in the selected academic discourse. Furthermore, each thesis was examined separately to determine the types of grammatical cohesive devices that were employed and also those that were inappropriately used by the students in the selected disciplines. Finally, all the chosen theses were compared to determine students of which department used cohesive devices effectively and whose academic discourse lacked cohesion the most. The use of cohesive devices overall within the contexts of their works was also examined in the end through a comprehensive examination.

4.1 Realization of Grammatical Cohesion in the Academic Discourse from the Department of Education

The following table presents the total frequency of grammatical cohesive devices in chapter five of theses written by the students from the Department of Education.

Table 4.2

Grammatical Cohesion in Academic Discourse by the Department of Education

Grammatical Cohesion	Occurrence	
Reference	Personal	810
	Demonstrative	2994
	Comparative	248
	Total	4052
Substitution	Nominal	37
	Verbal	3
	Clausal	7
	Total	47
Conjunction	Additive	1460
	Adversative	23
	Causal	186
	Temporal	57
	Total	1726
Ellipsis	Nominal	79
	Verbal	4
	Clausal	0
	Total	83
Grand Total		5,908

The present research analyzed ten theses from the Department of Education in which chapter five of each thesis was taken for the data analysis. From ten theses, it was found that there were four types of grammatical cohesive devices used by the students in chapter five of their theses. The above table indicated the distribution of grammatical cohesive devices in chapter five of ten theses written by the students from the Department of Education.

Afterwards, by using AntConc software (3.5.8), the frequency count feature represented the number of times the types and sub-types of grammatical cohesion appeared in the selected corpus as listed in Table 4.2 above. The table showed that grammatical cohesive devices appeared 5908 times. In particular, the most frequently appeared type of grammatical cohesion

was reference with the frequency 4052. Following that, types of conjunction appeared 1726 times. Then, types of ellipsis appeared 83 times and instances of substitution were found 47 times.

Figure 4. 1

Grammatical Cohesion in the Academic Discourse from the Department of Education
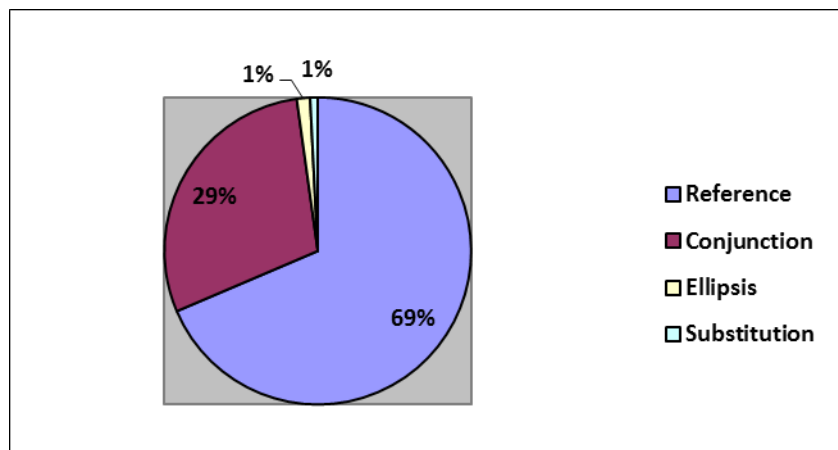
The frequency of each type of grammatical cohesion in the academic discourse written by the students from the Department of Education has been represented visually in Figure 4.1. The figure represented that references, which include both personal and demonstrative references, accounted for the largest percentage (69%) of the total grammatical cohesive devices employed in chapter five of theses produced by the Education department's students. This suggested that a significant portion of the student's work contained references to ideas and concepts that had already been discussed. Conjunctions, which comprised additive, adversative, causal, and temporal conjunctions, accounted for the next-highest percentage (29%) of grammatical cohesive devices. This implied that the students made extensive use of conjunctions to link various ideas and concepts in their work. Substitution (1%) and ellipsis (1%), which together accounted for the remaining 2% of the overall grammatical cohesion, were used. The terms ellipsis and substitution both refer to the use of words to replace nouns or phrases that have already been mentioned. This showed that the students' usage of these kinds of cohesive devices in their writing was less frequent.

4.1.1 Reference

The term "reference" refers to a system that identifies participants through text and records their identities. The reference has been categorized into three categories; personal, demonstrative, and comparative.

According to the theses analysis, it was inferred that the students from the Department of Education have mostly used references to create cohesive texts as the use of reference can be seen in table 4.2. The table indicated that there were three types of references which were used by the students in their academic writings. The overall distribution of each type of reference is shown in Table 4.3 which is given below.

Table 4.3

The Use of Reference

Type of Reference		Reference	Total use of Reference
Personal	Personal pronoun	I	46
		We	3
		You	2
		They	200
		He	16
		She	14
		It	221
	Possessive pronoun	My	24
		Our	14
		Their	212
		His	25
		Her	15
		Its	17
	Possessive adverb	Him	1
Demonstrative		This	168
		That	584
		These	89
		Those	21
		Here	3
		There	112
		Now	6
		Then	8

	The	2003
Comparative	Similarly	6
	Likewise	2
	So	5
	Other	69
	Different	40
	Less	29
	Better	15
	Equally	1
	More	58
	Moreover	23
	Total	4052

According to the above-mentioned data, the students from the Department of Education used references a total of 4097 times. Among these, demonstrative references were the most frequently used reference, which occurred 2994 times in the text and accounted for 73% of all references in the selected text. The table of the references also indicated that personal references were used 810 times and 20% of all references in the text, followed by comparative references which occurred 293 times and accounted for 7% of all references.

Figure 4. 2

Reference in the Academic Discourse from the Department of Education
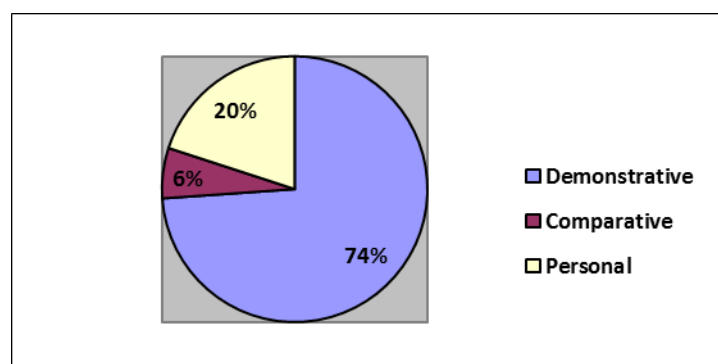
Figure 4.2 represents the percentage of various forms of references used in academic discourse by the Education department's students. The figure demonstrated that demonstrative references, which make up 74% of all references used in academic discourse by the Education department's students, were most commonly employed. 20% of the references were personal,

whereas just six per cent were comparative references. The usage of demonstrative references suggested that students from the Department of Education frequently made textual references to particular items, ideas, or concepts. It may be inferred from this that they were more inclined to offer concise and precise instances to support their assertions and showed that they had a thorough understanding of the topic. The Education department's students, on the other hand, might be less inclined to compare various ideas or perspectives in their academic writing, as seen by the comparatively low percentage of comparative references employed.

4.1.1.1 The Use of Demonstrative Reference

The analysis of references used in the academic discourse produced by the students from the Department of Education indicated that the students of this department have mostly used demonstrative references in the fifth chapter of their theses.

The further analysis of the demonstrative references used in the text as seen in table 4.2 indicated that the item "the" was used the most which was occurring 2003 times within this text, which means that the students used "the" as 67% of the total demonstrative reference. "The" is a grammatical item but is used for presuming the meaning. In the selected discourse, it was used as the proximity (neutral) in demonstrative reference and also indicated the d noun determiner which pointed out the noun directly.

The instance of the occurrence of "the" in the academic discourse from the Education department is shown below.

"It also connects the themes to the reviewed literature regarding Creative Writing in the Urdu Language that were discussed in chapter two of this dissertation" *(Source: Education Corpus, Paragraph 1, Line 2)*

From the above-mentioned instance, it was indicated that the word "the" was used as a neutral demonstrative. It was used as the noun determiner as in this example "the" was used as a determiner for the noun "themes" and "reviewed literature".

Other types of demonstrative reference (i.e.,) this, that, these, those, here, there, now, and then were also used by the students from the Department of Education in their academic discourse.

4.1.1.2 The Use of Personal Reference

The analysis further indicated that among the use of reference, students from the Department of Education used personal reference after demonstrative reference. Personal reference retains the function throughout the discourse state by using possessive determiners like 'my', 'yours', 'his', and 'hers', as well as noun pronouns like 'she, her', 'he', and 'him'. In other words, the personal reference identifies the person participating in a text by identifying the roles played by each person in a specific text.

According to the analysis of academic discourse from the Department of Education, it was found that the students used "it" more frequently, which occurred 221 times and was used in 27.28% of all the personal references. "It" is used to refer back to the referential meanings as well as explain the previous clause or sentence.

Here is an example which indicates the occurrence of 'it' in a sentence in the selected academic discourse from the Department of Education.

"This chapter discusses themes that emerged after analysis of data from interviews of research participants. It also connects the themes to the reviewed literature regarding Creative Writing in the Urdu Language that was discussed in chapter two of this dissertation" *(Source: Education Corpus, Paragraph 1, Line 1 & 2)*

From the above-mentioned example, it was clearly shown that the personal pronoun "it" was used by the students to refer back to something which was previously mentioned. As in this example, "it" referred back to the noun "chapter".

Besides the above-mentioned personal reference, other personal reference (i.e.,) I, we, you, they, he, she, my, our, their, his, her, its, and him were also used by the students from the Department of Education.

4.1.1.3 The Use of Comparative Reference

The analysis of selected academic discourse from the Department of Education indicated that, following the personal reference, the students used comparative reference 293 times within the selected academic discourse. Comparative reference refers to something indirectly through similarity or identification.

The overall distribution of comparative reference is shown in Table 4.1. The analysis of comparative reference indicated that the most frequently occurring comparative reference item in the selected academic discourse was "other" and the students used "other" 23.5% of all the comparative references. "Other" is an adjective of difference which shows the difference between two persons, things, places, opinions, or ideas (etc.).

Following is an example of "other" as a comparative reference taken from the academic discourse from the Department of Education.

"Findings revealed that problem-solving strategies are based on cognitive, Meta-cognitive and <u>other</u> related strategies" *(Source: Education Corpus, Paragraph 10, line 4)*

The aforementioned example revealed that the comparative reference "other" was used by the student to indicate the difference between two or more things, people, or opinions (etc.).

Besides "other", other comparative references (i.e.,) similarly, more, different, likewise, so, less, better, equally, moreover were also used by the students.

4.1.1.4 The Inappropriate Use of Reference in the Academic Discourse from the Department of Education

After describing the overall use of reference in the academic discourse from the Department of Education, the researcher tried to find out the inappropriate use of the reference. For this purpose, the researcher described the inappropriate use of reference in Table 4.4 to assist the readers in interpreting the data precisely.

Table 4.4

Inappropriate Reference Use in Academic Discourse by the Department of Education

Types of Reference	Total no. of Inappropriate Use	Percentage
Personal Reference	8	5.6%
Demonstrative Reference	130	90.9%

Comparative Reference	5	3.5%
Total	143	

According to above mentioned inappropriate use of reference table, the total number of inappropriate use of reference in the academic discourse from the Department of Education was 143. Among the references, it was indicated that demonstrative reference was predominant in using grammatical cohesion inappropriately, which occurred 130 times (90.9%), followed by personal reference which occurred 8 times (5.6%). The comparative reference was the last one with five occurrences (3.5%).

Following are some examples of an inappropriate use of reference taken from the academic discourse from the Department of Education.

"Awards and encouragement help students to articulate the writing and help to build up new ideas and concepts for creative writing" *(Source: Education Corpus, Paragraph 3, line 13)*

In the above-mentioned example, a demonstrative reference "the" was not used appropriately, there should be a personal possessive reference "their" to create a distinct link between the pronoun and its antecedent.

Teachers may also be trained to use these technologies not only for themselves but also need of the time to deliver this knowledge to their students as well. *(Source: Education Corpus, Paragraph 99, line 10)*

In the above-mentioned example, personal references "himself" and "his" were not used appropriately. In this sentence, the noun "teachers" was plural to which these personal references referred so the personal possessive reference should be in plural such as "themselves" and "their" instead of "himself" and "his" to maintain coherence within the sentence.

"Practicum work has been given very less marks weightage as compared to theory" *(Source: Education Corpus, Paragraph 78, line 1)*

In this example, the comparative reference "less" was not used appropriately as "marks" is a countable noun with which a determiner "fewer" should be used to follow the linguistic comparison rule.

It can be inferred from the analysis of the inappropriate reference use in the academic discourse from the Department of Education that there were times when students disregarded the linguistic principle of cohesion particularly reference, which resulted in the inappropriate use of referential cohesive devices. To maintain clarity and consistency, the linguistic principle of reference places a strong emphasis on accurately identifying and describing the referent within a text. In the above-mentioned examples, the inappropriate reference use made it difficult to understand the intended meaning because of a lack of clarity and precision and discovered deviations from the linguistic rule of reference and concluded that some students from the Department of Education had difficulty in using referential cohesive devices appropriately.

4.1.2   Conjunction

The term "conjunction" refers to the cohesive connection that forms between a sentence and a paragraph section to show that they have a meaningful connection between them. In conjunction, a speaker relates a clause to another clause using terms like temporal sequence, addition, consequence, and comparison. There are four categories of conjunctions: adversative, additive, causal, and temporal.

According to the thesis analysis, it was inferred that after the references, students from the Department of Education used conjunctions to make their academic discourse more cohesive. The use of conjunctions can be seen in Table 4.2. The table indicated that there were four types of conjunction which were used by the students in their academic writings. The overall distribution of each type of conjunction is shown in Table 4.5 which is given below.

Table 4.5

The Use of Conjunction

Type of Conjunction	Total no. of Occurrence
Additive	1460

Adversative	23
Causal	186
Temporal	57
Total	1726

According to the above-mentioned data, students from the Department of Education used conjunctions a total of 1726 times. Among these, additive conjunctions were the most frequently used conjunction, which occurred 1460 times in the text and accounted for 84.34% of all conjunctions in the selected text. The table of the conjunctions also indicated that causal conjunctions were used 186 times and 11.03% of all conjunctions in the text, followed by temporal conjunctions occurred 57 times accounting for 3.29% of all the conjunctions and adversative conjunctions which occurred 23 times and accounted for 1.32% of all the conjunctions.

Figure 4. 3

Conjunctions in the Academic Discourse from the Department of Education
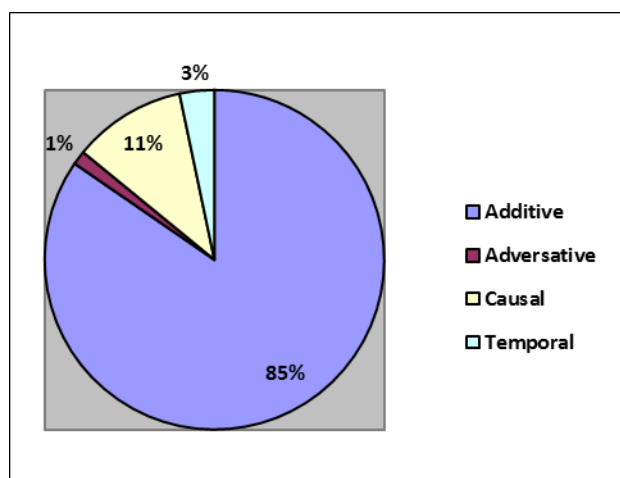
The figure represented the prevalence of various types of conjunctions employed in the academic discourse by the Education department's students. The data indicated that, with a rate of 85%, additive conjunctions were the most often utilized type of conjunction which implied

that students used it extensively to connect their ideas and to make their writings more cohesive. With a proportion of 11%, causal conjunctions were employed more rarely than additive conjunctions but significantly contributed to connecting concepts and strengthening their writings. Adversative conjunctions had a percentage of 1%, while temporal conjunctions had a percentage of 3%.

4.1.2.1 The Use of Additive Conjunctions

The analysis of conjunctions used in the academic discourse from the Department of Education indicated that the students of this department mostly used additive conjunctions in the fifth chapter of their theses. Additive conjunction merely joins two sentences together.

The following table indicates the overall distribution of additive conjunction in the selected academic discourse.

Table 4.6

The Use of Additive Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	And	1136
	Also	151
	Or	46
	Moreover	23
	As well as	20
	Furthermore	17
	Further	15
	In addition	14
	Besides	11
	Either	5

	Neither	3	
Additive Conjunction	Nor	3	
	On the other hand	3	
	Thus	3	
	Additionally	2	
	Likewise	2	
	Similarly	2	
	For example	1	
	For instance	1	
	In contrast	1	
	That is	1	
	Total	1460	

The further analysis of the additive conjunctions used in the text as seen in table 4.3 indicates that the item "and" was used the most which was occurring 1136 times within this text, which means that the students used "and" 77.8% of the total additive conjunctions. "And" is an additive conjunction which is used to add information to something. The instance of occurrence of "and" in the selected academic discourse is shown below.

"In presenting the result of this study <u>and</u> how these results confirm or contradict findings in the literature" *(Source: Education Corpus, Paragraph 1, line 3)*

In the above-mentioned examples, it was seen that "and" was used to add something to the sentence. In this example, "and" was used to join the clauses by adding further information.

Other additive conjunctions were also used which were mentioned in table 4.6.

4.1.2.2 The Use of Causal Conjunction

According to the further analysis of the use of conjunctions in the academic discourse from the Department of Education, it was found that students used causal conjunctions after additive conjunctions. Causal conjunctions provide the results, causes, or purposes.

Causal conjunctions occurred 186 times which accounted for 11.12%. The distribution of each causal conjunction with their frequency is shown in the table given below.

Table 4.7

The Use of Causal Conjunction

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	Because	82
	So	50
	Therefore	19
	Thus	11
	Hence	11
Causal Conjunction	Then	8
	Otherwise	3
	Because of this reason	2
	Because of the	2
	For this reason	1
	This reason	1
	Because of this	1
	Total	191

The above-mentioned table indicated that among causal conjunctions, "because" was the most frequently occurring causal conjunction which occurred 82 times which means that students used "because" 42.93% of total causal conjunctions in their academic discourse. "Because" is used to give some reasons.

Here is an example of "because" that occurred in the data from the Department of Education.

"The research participants feel that discussion method provides creative writing among students because, through discussion method, they compare their viewpoints and contrast it and clarify their knowledge and skills". *(Source: Education Corpus, Paragraph 4, line 5)*

In this example, "because" was used to give the reason why the discussion method is important for the students.

4.1.2.3 The Use of Temporal Conjunction

According to the further analysis of the use of conjunctions in the academic discourse from the Department of Education, it was found that the students used temporal conjunctions after causal conjunctions. Temporal conjunctions denote the progression of time by using conjunctions like next, after, first, then, in the end, and finally (etc.).

The overall distribution of temporal conjunctions within the selected data is shown in the given table.

Table 4.8

The Use of Temporal Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	When	20
	Then	8
	Since	9
	Before	12

Temporal Conjunction	Until	2
	In the end	3
	Next	1
	Finally	1
	Up until	1
	Total	57

According to the data analysis in Table 4.8, it was found that among temporal conjunctions, the most frequently used temporal conjunction was "when" which occurred 20 times, which means students used "when" 35.08% of all the temporal conjunctions. The example of "when" is given below.

"Gestalt Theory proposes that successful problem solving happens <u>when</u> a person can see the entire complexity of a problem without isolating any part of it" *(Source: Education Corpus, Paragraph 9, line 7)*

The above example indicated that 'when' is a temporal conjunction used to show the time of an action.

4.1.2.4 The Use of Adversative Conjunction

According to the further analysis of the use of conjunctions in the academic discourse from the Department of Education, it was found that students of this department used adversative conjunctions less than other types of conjunction. Adversative conjunctions including but yet, though, only, but, on the other hand, on the contrary, (etc.) are used to show the contrast between two or more statements in the sentences.

The overall distribution of adversative conjunctions is shown in the given table.

Table 4.9

The Use of Adversative Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	But	13
	Even though	2
	However	4
Adversative Conjunction	In any case	1
	Rather	1
	On the contrary	1
	In contrary	1
	Total	23

According to the detailed analysis of adversative conjunctions, it was found that "but" occurred more frequently in the chosen academic discourse. It occurred 13 times which accounted for 56.52% of all the adversative conjunctions. "But" is an adversative conjunction which is used to show the contrast between two or more statements.

The occurrence of "but" in the selected academic discourse was shown in the following example.

"This is also supported by Wallace, Stariha & Walberg (2004) said that teachers not only conduct lessons <u>but</u> also stimulate learners to become creative writers through encouragement and motivation" *(Source: Education Corpus, Paragraph 12, line 12)*

According to this example, it was indicated that the students used "but" to show contrast between the statements within a sentence.

4.1.2.4 The Inappropriate Use of Conjunction in the Academic Discourse from the Department of Education

The occurrence of inappropriate use of conjunctions in the academic discourse from the Department of Education was mentioned in Table 4.10 which is given below.

Table 4.10

Inappropriate Conjunction Use in Academic Discourse by the Department of Education

Types of Conjunction	Total no. of Inappropriate Use	Percentage
Additive Conjunction	20	76.92%
Adversative Conjunction	1	3.8%
Causal Conjunction	2	7.6%
Temporal Conjunction	3	11.5%
Total	26	

According to Table 4.10 representing the inappropriate use of conjunctions, it was found that in the academic discourse from the Department of Education, the total number of inappropriate use of conjunctions was 26 times in which additive conjunctions were the dominant one with 20 occurrences (76.92) followed by temporal 3 times (11.5%), causal 2 times (7.6%), and adversative misuse was the least one (3.8%).

Following are some examples of inappropriate use of conjunctions.

"Furthermore, they found that demonstration method technique is important for students and to express their writing and teachers can use demonstration method to introduce and motivate the students for creative writing task" *(Source: Education Corpus, Paragraph 5, line 3)*

The underlined 'and' was misused in the above-mentioned example. The correct sentence is *'Furthermore, they found that demonstration method technique is important for students to express their writing…'*

"It is concluded <u>because</u> participants were focused, paying full concentration, and taking interest in watching KCs" *(Source: Education Corpus, Paragraph 149, line 22)*

In the above-mentioned example, the causal conjunction "because" was not used appropriately. There should be "that" instead of "because".

"<u>But</u> all other coping strategies were moderate among the secondary school teachers" *(Source: Education Corpus, Paragraph 41, line 3)*

In this example, "but" was not used correctly, there should be "however all the other..." instead of "but the all other…"

"Their practices should be discouraged" *(Source: Education Corpus, Paragraph 74, line 4)*

In this example, the temporal conjunction "there" was misused by the student. There should be "these" instead of "there".

According to the analysis of the misuse of conjunctions in the academic discourse from the Department of Education, it can be inferred that certain students violated the linguistic rule of conjunctions, resulting in the misuse of these cohesive devices. The linguistic rule of conjunctions emphasizes proper conjunction use and placement to maintain coherence in writing and create logical connections between ideas. The above-mentioned examples illustrated occurrences in which the misuse of conjunctions led to ambiguity and disruption in the ideas.

4.1.3 Ellipsis

Ellipsis is the omission of a word or an item. It might be understood as a kind of substitution when the thing is replaced by nothing. Ellipsis is of three types; nominal ellipsis, verbal ellipsis, and clausal ellipsis.

The use of ellipsis can be seen in Table 4.2. The table indicated that there were two types of ellipses which were used by the students from the Department of Education in their academic writings. The overall distribution of each type of ellipsis is shown in the following table.

Table 4.11

The Use of Ellipsis

Types of Ellipsis	Total no. of Occurrence
Nominal Ellipsis	79
Verbal Ellipsis	4
Clausal Ellipsis	0
Total	83

According to the data mentioned in the above table, it was found that the students from the Department of Education mostly used nominal ellipsis which occurred 79 times followed by verbal ellipsis which appeared 4 times.

Figure 4. 4

Ellipsis in the Academic Discourse from the Department of Education
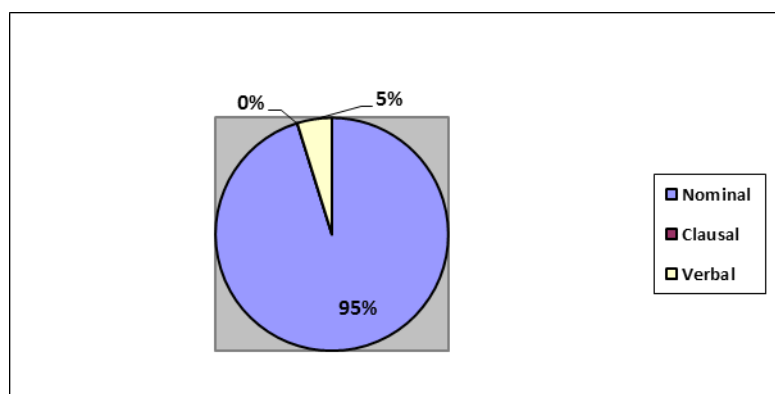
Figure 4.4 indicates the distribution of types of ellipsis in the academic discourse written by the students from the Education department. According to the data presented in the above

figure, 95% of all ellipsis instances in the corpus were of the nominal ellipsis, making it the most common type. The second most frequent type of ellipsis, verbal ellipsis accounted for 5% of all the types of ellipsis. Finally, clausal ellipsis, which made up 0% of all ellipses, was the least common type of ellipsis. This indicated that, compared to other types of ellipsis, nominal ellipsis was used more frequently in academic writing by the Education Department's students.

4.1.3.1 Nominal Ellipsis

Nominal ellipsis is the omission of a noun. According to the data analysis, nominal ellipsis occurred 79 times which accounted for 95.18 % of all the ellipsis.

Following is an example of nominal ellipsis taken from the selected data from the Department of Education.

"In his research, a total of 23 participants were involved; 19 were <u>female</u> and four were <u>male</u>" *(Source: Education Corpus, Paragraph 10, line 2)*

In the above-mentioned example, the noun "participants" was omitted from the following clause, which was supposed to be placed after the words "female" and "male".

4.1.3.2 Verbal Ellipsis

Verbal ellipsis is the elimination of an item within a given verbal group. The data analysis indicated that verbal ellipses occurred 4 times, which means students used verbal ellipses 4.81% of all the ellipses.

The instance of verbal ellipsis realized in the selected data is given below.

"According to the conclusions of Quraishi, Aziz and Siddiquah (2018), which revealed both positive and negative factors experienced by these teachers <u>and also</u> different coping strategies adopted by teachers of different age groups" *(Source: Education Corpus, Paragraph 49, line 5)*

In the above-mentioned example, the words "and also different" are omitted from the words "and also revealed different coping strategies…'

4.1.3.3 Clausal Ellipsis

A clausal ellipsis is the omission of an item within the clausal group. Clausal ellipsis usually occurs in spoken discourse. However, the researcher did not find any instance of clausal ellipsis in the selected academic discourse from the Department of Education.

4.1.3.4 The Inappropriate Use of Ellipsis in the Academic Discourse from the Department of Education

According to the detailed analysis of ellipses in the academic discourse from the Department of Education, the researcher found two inappropriate nominal and verbal ellipses which are given below.

"This is also supported by Wallace, Stariha & Walberg (2004) said that teachers not only conduct lessons but <u>also stimulate</u> learners to become creative through encouragement and motivation" *(Source: Education Corpus, Paragraph 7, line 14)*

The above-mentioned example is nominal ellipsis where the student failed to use the ellipsis "but also stimulates" due to the plural noun "teachers" which the student tends to omit. "Teachers" is plural and the verb "stimulates" did not agree in number. This omission, however, was improper because the verb "stimulates" did not agree in number with the plural noun "teachers." The whole phrase *"but also stimulates learners to become creative through encouragement and motivation"* should have been used to achieve coherence and grammatical agreement.

"Discussion method is one of the student-centred approaches, teaching method, which allows students to discuss, express the knowledge and information, provides their opinion, feelings <u>and concludes</u>" *(Source: Education Corpus, Paragraph 3, line 22)*

In the above-mentioned example, the underlined words "and reaches" were omitted from the verbal phrase "which allows students to" and the omitted verb did not agree in number with the noun "students". The sentence *"which allows students to discuss, express their knowledge and information, provide their opinion and feelings, and reach a conclusion"* should have been used to maintain coherence and grammatical agreement.

4.1.4   Substitution

Substitution is more related to words than meaning. The three basic types of substitution in sentences are nominal, verbal, and clausal.

According to the detailed analysis of data from the Department of Education, it was inferred that after the ellipsis, the students from the Department of Education used substitution to make their academic discourse more cohesive. The use of substitution can be seen in Table 4.2. The table indicated that there were three types of substitution which were used by the students in their academic writings. The overall distribution of each type of substitution is shown in the following table.

Table 4.12

The Use of Substitution

Types of Substitution	Total no. of Occurrence
Nominal Substitution	39
Verbal Substitution	3
Clausal Substitution	7
Total	49

According to the detailed analysis of academic discourse, it was found that nominal substitution occurred more frequently than other types of substitution. Nominal substitution occurred 39 times followed by clausal substitution which occurred 7 times, and verbal substitution which occurred 3 times.

Figure 4. 5

Substitution in the Academic Discourse from the Department of Education
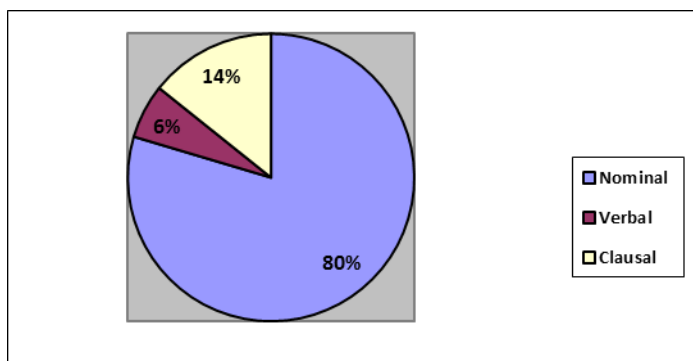
Figure 4.5 represents the prevalence of different types of substitution in the academic discourse by the Education department's students. The most frequent type of substitution was nominal, accounting for 80% of all types, followed by clausal (14%), and verbal (6%). This indicated that the Education department's students utilized nominal substitution more commonly than verbal and clausal substitution in the selected theses.

4.1.4.1 Nominal Substitution

An in-depth analysis of the data indicated that nominal substitution mostly occurred in the chosen academic writings. Nominal substitution is the replacement of a noun.

Following is an example of nominal substitution that occurred in the selected academic discourse from the Department of Education.

"For the present study, three main objectives were made. The first <u>one</u> was, "to identify occupational stress among teachers at secondary school level" *(Source: Education Corpus, Paragraph 30, Line 1, 2)*

In this example, the noun "objectives" was substituted with the word "one".

4.1.4.2 Clausal Substitution

According to Table 4.7, clausal substitution was the second most frequently used type of substitution. Clausal substitution is a form of substitution during which the words so, no, and not are used to substitute the entire clause.

Here is an example of clausal substitution that occurred in the selected academic discourse from the Department of Education.

"68% of respondents agreed with the statement that separate physics laboratories are available in schools while 27% did not believe <u>so</u>" *(Source: Education Corpus, Paragraph 62, Line 1)*

In this example, the clause *'separate physics laboratories are available in schools'* was replaced with the word 'so'.

4.1.4.3 Verbal Substitution

According to the data analysis in Table 4.7, it was found that verbal substitution was the less-used type of substitution. Verbal substitution is the replacement of a verb with the words like do, did, done, doing (etc.).

Here is an example of verbal substitution taken from the selected academic discourse.

"The researcher was also interested in collecting data from students but due to restriction of time and resources he cannot <u>do</u> so" *(Source: Education Corpus, Paragraph 76, line 3)*

In this example, the verb "collecting data" was replaced with the word 'do' in the second clause.

4.1.4.4 The Inappropriate Use of Substitution in the Academic Discourse from the Department of Education

After a detailed analysis of substitution in the academic discourse from the Department of Education, the researchers found the inappropriate use of substitution and did not find any inappropriate use the substitution within the selected academic discourse. The students from the Department of Education used this cohesive device to maintain coherence and clarity in their writing effectively because there was no improper use of substitution. They effectively used different words or phrases that referred to previously introduced ideas, permitting easy transitions and logical threads across the subject matter.

4.1.5   Discussion

The findings about the use of different types of grammatical cohesive devices by the students from the Education department have been analyzed using the lens of Halliday and Hasan's cohesion theory. Their method holds that one of the most crucial cohesive strategies for producing textual coherence is a reference. Students in the Department of Education frequently use references, which is an indication that they're capable and can organize their writing coherently. However, the excessive use of demonstrative references, the most common type, may point to a lack of variation in their pieces of writing and the need for broader referencing techniques.

Similarly, the excessive use of additive conjunctions, which was the most common type in their writings, indicated that they were able to link various ideas and produce cohesive texts. However, the minimal use of temporal and adversative conjunctions indicated their limited collection of cohesive strategies, resulting in a lack of variety and coherence in their written discourse.

Furthermore, the results of the study on the use of ellipses and substitutions in academic writing by students from the Department of Education indicated a lack of both precision and complexity in the use of grammatical cohesive devices. The infrequent use of ellipsis and absence of clausal ellipsis may be an indication of the student's lack of writing variety because clausal ellipsis is frequently used to build more complex sentences and meanings. Similarly, a lack of variation in the students' writing and a missed chance to convey a more specific and deeper meaning have also been indicated by minimal use of substitution, with nominal substitution being the most common type. These results implied that a greater focus on ellipsis and substitution use, especially clausal substitution and ellipsis, could enhance the coherence and quality of students' academic writing.

Additionally, the findings regarding the improper use of cohesive devices show a lack of knowledge regarding how these grammatical cohesive devices ought to be used in academic writing. The frequent inappropriate use of demonstrative references highlighted that there is a need for further guidance on using references appropriately in academic writing. The misuse of additive conjunctions may be a result of an inclination to use too many easy and simple conjunctions rather than more complex sentence constructions to establish coherence.

Overall, the findings of the study indicated that while students from the Department of Education have used cohesive devices to produce coherence in their writing, broader techniques and a better understanding of how to use these devices effectively in academic writing are still needed.

4.2 Realization of Grammatical Cohesion in the Academic Discourse from the Department of International Relations

The following table shows the total frequency of grammatical cohesive devices in chapter five of the thesis written by the students from the Department of International Relations.

Table 4.13

Grammatical Cohesion in Academic Discourse by the Department of International Relations

Grammatical Cohesion	Occurrence	
Reference	Personal	1217
	Demonstrative	4765
	Comparative	310
	Total	6292
Substitution	Nominal	42
	Verbal	7
	Clausal	8
	Total	57
Conjunction	Additive	2437
	Adversative	352
	Causal	236
	Temporal	203
	Total	3228
Ellipsis	Nominal	141
	Verbal	27
	Clausal	0
	Total	168
Grand Total		9745

The present research analyzed ten theses from the Department of International Relations in which chapter five of each thesis was taken for the data analysis. From ten theses, it was found that there were four types of grammatical cohesive devices used by the students in chapter five of their theses. The above table indicated the distribution of grammatical cohesive devices in chapter five of ten theses written by the students from the Department of International Relations.

Afterwards, by using AntConc software (3.5.8), the frequency count feature represented the number of times the types and sub-types of grammatical cohesion appeared in the selected corpus as listed in Table 4.13 above. According to the above-mentioned table, overall the grammatical cohesive devices appeared 9745 times. Among all types of grammatical cohesion, reference was the dominant one with the occurrence 6292 times followed by conjunction which appeared 3228 times. Ellipsis took the third place which occurred 168 times and substitution appeared 57 times in the academic discourse from the Department of International Relations.

Figure 4. 6

Grammatical Cohesion in the Academic Discourse from the Department of International Relations
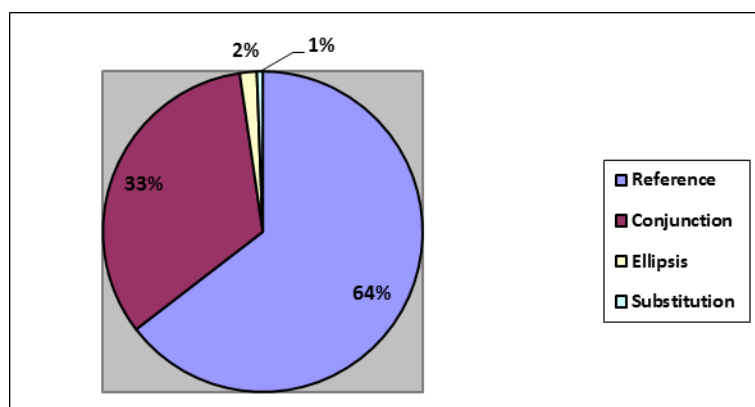
The distribution of various grammatical cohesive devices in the academic discourse of students in the Department of International Relations has been depicted in Figure 4.6. The use of references made up the majority of the pie chart (64%), which is represented. This suggested that the International Relations department's students regularly used references to link and made references to previously stated or newly introduced elements in their academic discourse. The use of conjunctions made up another big portion of the chart, accounting for 33% of its total

area. This indicated that the International Relations department's students used conjunctions to connect various textual elements and create linkages between ideas. Conjunctions are essential for establishing unity and coherence within writing, and students' frequent use of them demonstrated their ability to effectively connect and arrange their ideas. Substitution (2%) and ellipsis (1%) were the smallest parts of the chart. This suggested that fewer students in the International Relations department used substitution and ellipsis in their academic writing. The lower percentages for substitution and ellipsis implied that the International Relations department's students might not have used these cohesive devices more often or as efficiently as reference and conjunctions.

4.2.1 Reference

The reference has been categorized into three categories; personal, demonstrative, and comparative.

According to the theses analysis, it was inferred that demonstrative reference was the dominant type of reference followed by personal reference and comparative reference. The overall distribution of each type of reference is shown in Table 4.14 which is given below.

Table 4.14

The Use of Reference

Type of Reference		Reference	Total use of Reference
Personal	Personal pronoun	I	36
		We	10
		You	0
		They	101
		He	80
		She	4
		It	443
	Possessive pronoun	My	0
		Our	9
		Their	169
		His	75
		Her	1
		Its	274

Possessive adverb	Him	15
Demonstrative	This	208
	That	421
	These	150
	Those	14
	Here	10
	There	105
	Now	28
	Then	17
	The	3812
Comparative	Similarly	10
	Likewise	4
	So	1
	Other	121
	Different	31
	Less	10
	Better	7
	Equally	3
	More	73
	Moreover	48
	Identically	1
	Else	1
	Total	6292

According to the above-mentioned data, the students from the Department of International Relations used references a total of 6292 times. Among these, demonstrative reference occurred 4765 times which accounted for 75.73% of all the references used in the academic discourse from the Department of International Relations. The personal reference appeared 1217 times accounting for 19.34% and comparative reference occurred 310 times which accounted for 4.92% of all the references.

Figure 4. 7

Reference in the Academic Discourse from the Department of International Relations
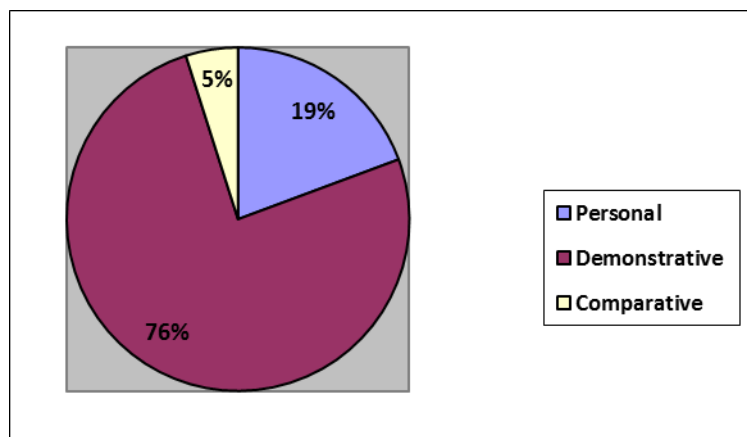
The pie chart represents the distribution of different types of references used in the academic discourse. Three subtypes of reference have been identified such as demonstrative reference, personal, and comparative references. Demonstrative reference made up the greatest portion of the pie chart (76% of the whole). The high percentage showed that students commonly used demonstrative references to refer to particular items or ideas in their academic writing. The personal reference made up 19% of the total in the next section of the chart. This percentage showed that students frequently used personal references in their academic writing to establish their own opinions. Comparative reference made up the smallest portion of the graph, making up 5% of the whole. The lower proportion indicated that students utilized comparative reference less frequently in their academic discourse than other types of reference.

4.2.1.1 The Use of Demonstrative Reference

The analysis of references used in the academic discourse from the Department of International Relations indicated that the students of this department mostly used demonstrative references in their academic discourse.

Further analysis of the demonstrative references used in the selected academic discourse indicated that the item "the" was used the most which occurred 3812 times and accounted for 80% of all the demonstrative references. In the selected discourse, it was used as the proximity (neutral) in demonstrative reference and also indicated the d noun determiner which pointed out the noun directly.

Following is an instance of "the" taken from the academic discourse from the Department of International Relations.

"The Northern Sea Route is one of three possible future Sea routes in the Arctic Ocean" *(Source: International Relations Corpus, Paragraph 8, Line 1)*

In the aforementioned example, "the" was used as a noun determiner e.g. the nouns "Northern Sea Route" and "Arctic Ocean" were modified by the determiner "the".

Other types of demonstrative reference (i.e.,) this, that, these, those, here, there, now, and then were also used by the students from the Department of International Relations in their academic discourse.

4.2.1.2 The Use of Personal Reference

According to the further analysis of references, it was indicated that the students from the Department of International Relations used personal references followed by demonstrative references. The personal reference identifies the person participating in a text by identifying the roles played by each person in a specific text.

The analysis indicated that among the personal references, the students from the Department of International Relations frequently used "it" which appeared 443 times and accounted for 36.40%. Following is an example of "it" taken from the academic discourse of the Department of International Relations.

"Prioritizing cyber security isn't the only issue. The difficulty is in comprehending it" *(Source: International Relations Corpus, Paragraph 259, Line 1 & 2)*

In the above-mentioned example, "it" referred back to "cyber security" which was already mentioned in the previous sentence.

Besides "it" other personal references such as I, we, you, they, he, she, my, our, their, his, her, its, and him also appeared in the academic discourse from the Department of International Relations.

4.1.1.3 The Use of Comparative Reference

The analysis of references in the selected academic discourse from the Department of International Relations revealed that comparative reference was the least used type of reference. The students of this department used comparative references 310 times within the selected academic discourse. Comparative reference is used to compare persons or things.

According to the distribution of comparative references, the most frequently used comparative reference in the academic discourse from the Department of International Relations was "other" which appeared 121 times and accounted for 39.03% of all the comparative references.

Following is an example of "other" taken from the academic discourse of the Department of International Relations.

"There has been a debate regarding the legal status of the Northern Sea Route, some social science scholars think that both NSR and NWP are synonymous while others argue that the NSR and the NWP are two different sea routes" *(Source: International Relations Corpus, Paragraph 9, line 1)*

In this example; "other" indicated the difference between the opinions of the scholars.

Despite "other" other comparative reference items (i.e.,) similarly, more, different, likewise, so, less, better, equally, moreover were also used by the students from the Department of International Relations.

4.2.1.4 The Inappropriate Use of Reference in the Academic Discourse from the Department of International Relations

After analyzing the overall use of reference in the academic discourse from the Department of International Relations, the researcher tried to find out the inappropriate use of the reference. The overall distribution of inappropriate use of references is mentioned in Table 4.15.

Table 4.15

Inappropriate Reference Use in Academic Discourse by the Department of International Relations

Types of Reference	Total no. of Inappropriate Use	Percentage
Personal Reference	24	10.7%
Demonstrative Reference	196	87.8%
Comparative Reference	3	1.3%
Total	223	

According to above mentioned inappropriate use of reference table, the total number of inappropriate use of reference in the academic discourse from the Department of International Relations was 223. Among the references, it was indicated that demonstrative reference was predominant in using grammatical cohesion inappropriately, which occurred 196 times (87.8%) followed by personal reference which occurred 24 times (10.7%). The comparative reference was the last one with 3 occurrences (1.3%).

Following are some examples of an inappropriate use of reference taken from the academic discourse of the Department of International Relations.

"This is a huge challenge for the concerned authorities. Index portrays a negative image more than the positive image for protective measures" *(Source: International Relations Corpus, Paragraph 220, line 9)*

In this example, the underlined "the" was misused by the student. There should be "a" instead of "the".

"In the past four decades, it spent billions of dollars on <u>their</u> collaborative partners (i.e.,) the Mujahedeen, who helped Pakistani intelligence to achieve its stakes in Afghanistan" *(Source: International Relations Corpus, Paragraph 351, line 2)*

In the above-mentioned example, the underlined personal possessive pronoun "there" was not used appropriately as the personal reference "it" was already used which indicated that the subject was singular so the possessive pronoun should be "its" instead of "their".

"Moreover, territorial disputes among regional states and spillover of conflicts from <u>other</u> regions can also affect peace and stability in the region" *(Source: International Relations Corpus, Paragraph 56, line 5)*

In this example, a comparative reference "other" was not used appropriately because the word "region" was singular and with a singular noun "another" should be used.

The linguistic rule or reference is associated with the proper use of referential cohesive devices to refer back to an entity or idea that is already mentioned in the text. It confirms that the relationships between various discourse components are obvious and contribute to the writing's overall coherence. There are instances of incorrect reference use in the examples given in the academic discourse from the Department of International Relations. Due to the lack of appropriate linkages between the referred ideas and entities, these instances render the violation of the linguistic principle of reference. The above-mentioned examples demonstrated how deviations from the linguistic rule of reference impact the text's coherence. When references are employed improperly, readers may find it difficult to understand the connections between various discourse elements, which could cause comprehension to break down.

4.2.2 Conjunction

A conjunction is used to join two or more sentences through which they have a meaningful connection between them. There are four categories of conjunctions: adversative, additive, causal, and temporal.

According to the analysis of academic discourse from the Department of International Relations, it was found that there were four types of conjunction which were used by the students

in their academic writings. The overall distribution of each type of conjunction is shown in Table 4.16 which is given below.

Table 4.16

The Use of Conjunction

Type of Conjunction	Total no. of Occurrence
Additive	2437
Adversative	352
Causal	236
Temporal	203
Total	3228

According to the above-mentioned data, it was found that additive conjunction (2437) was the predominant type of conjunction followed by the adversative conjunction (352), causal conjunction (236), and the temporal conjunction (203) was the least used type of conjunction.

Figure 4. 8

Conjunctions in the Academic Discourse from the Department of International Relations
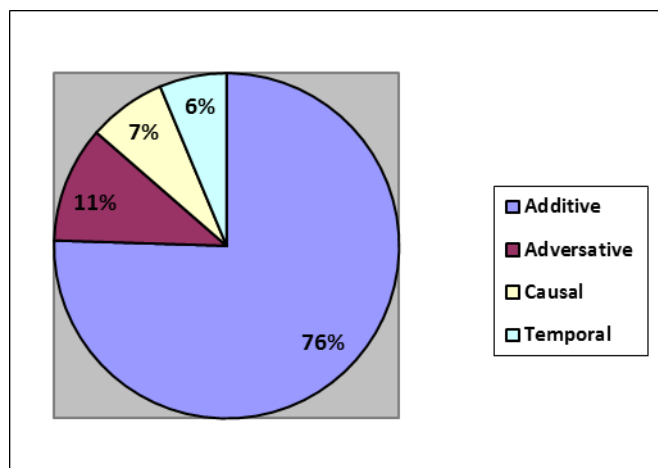
Figure 4.8 represented the distribution of different types of conjunctions in the academic discourse by the International Relations department's students. According to the figure, additive conjunctions made up the greatest portion of the pie chart (76% of the whole). The high percentage implied that students frequently used additive conjunctions to link and develop concepts in their academic writing. Adversative conjunctions, which made up 11% of the total, were represented in the next section of the chart. According to this percentage, students employed adversative conjunctions less frequently than additive conjunctions but employed them to highlight contrasting relationships in their academic writing. Causal conjunctions made up the next part, which comprised 7% of the whole. According to this proportion, students used causal conjunctions to explain things and make logical connections in their academic discourse. Temporal conjunctions, which made up 6% of the total, were represented by the smallest segment in the chart. The smaller proportion for temporal conjunctions showed that students utilized them less frequently in academic discourse than other types of conjunction.

4.2.2.1 The Use of Additive Conjunctions

The analysis of conjunctions used in the academic discourse from the Department of International Relations indicated that the students of this department mostly used additive conjunctions in the fifth chapter of their theses. Additive conjunction merely joins two sentences together.

The following table indicates the overall distribution of additive conjunction in the selected academic discourse.

Table 4.17

The Use of Additive Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	And	1919
	Also	149
	Or	86

	Moreover	48
	As well as	72
	Furthermore	21
	Further	29
	In addition	13
	Besides	8
	Either	11
	Neither	4
	Nor	3
Additive Conjunction	On the other hand	12
	Thus	13
	Additionally	11
	Likewise	4
	Similarly	10
	For example	2
	For instance	4
	In contrast	1
	I mean	1
	That is	16
	Total	2437

The above-mentioned table indicated that the students from the Department of International Relations frequently used "and" which occurred 1919 times accounting for 78.74%

of all the additive conjunctions. "And" is an additive conjunction which is used to add information to something. The instance of occurrence of "and" in the selected academic discourse from the Department of International Relations is shown below.

"A website www.pakistan.gov.pk has been created for all government ministries <u>and</u> organizations to promote <u>and</u> facilitate E-governance along with the issuance of a policy for internet usage" *(Source: International Relations Corpus, Paragraph 225, Line 4)*

In the above-mentioned example, "and" was used to add various things to a list.

Besides "and" other additive conjunctions such as also, moreover, furthermore, in addition, similarly, likewise, additionally, as well as, or (etc.) were also used in the academic discourse from the Department of International Relations.

4.1.2.2 The Use of Adversative Conjunction

According to the further analysis of the use of conjunctions in the academic discourse from the Department of International Relations, it was found that students of this department used adversative conjunctions followed by additive conjunctions. Adversative conjunctions occurred 352 times which accounted for 10.9%. Adversative conjunctions are used to show the contrast between two or more statements in the sentences.

The overall distribution of adversative conjunctions in the academic discourse from the Department of International Relations is shown in the table given below.

Table 4.18

The Use of Adversative Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	Yet	22
	But	113
	Even though	7
	However	70

Adversative Conjunction	Though	19
	Rather	31
	At least	7
	In contrary	1
	Actually	6
	In fact	5
	At the same time	8
	Only	63
	Total	352

According to the table, it was found that among adversative conjunctions the students mostly used "but" which occurred 113 times and accounted for 32.10% of all the adversative conjunctions.

Following is an example of "but" taken from the academic discourse of the Department of International Relations.

"The route passes through the Arctic waters <u>but</u> most of those waters are within the EEZ or even in some areas in the internal waters of Russia" *(Source: International Relations Corpus, Paragraph 8, Line 3)*

In the above-mentioned example, "but" was used to show the contrast between two clauses within a sentence.

Other adversative conjunctions which were mentioned in table 4.18 were also used by the students from the Department of International Relations.

4.2.2.3 The Use of Causal Conjunction

According to the further analysis of the use of conjunctions in the academic discourse from the Department of International Relations department, it was found that the third most frequently used type of conjunction was causal conjunctions which provide the results, causes, or purposes.

Causal conjunctions occurred 236 times which accounted for 7.31%. The distribution of each causal conjunction with their frequency is shown in the table given below.

Table 4.19

The Use of Causal Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	Because	65
	So	56
	Therefore	46
	Thus	13
	Hence	15
	Then	17
Causal Conjunction	Otherwise	3
	Apart from	11
	Because of the	1
	For this reason	1
	Consequently	5
	Because of this	2
	In such an	1

	Total	236

From the abovementioned table, it was found that "because" was the dominant causal conjunction in the academic discourse from the academic discourse from the Department of International Relations. "Because" occurred 65 times which accounted for 27.54% of all the causal conjunctions.

Following is an example of "because" taken from the academic discourse from the Department of International Relations.

"States had never shown interest in the NWP <u>because</u> it was thought to be risky to utilize the route for shipment in the presence of ice-packed Arctic" *(Source: International Relations Corpus, Paragraph 14, Line 3)*

In this example, "because" was used to give a reason why the states are not showing interest in the NWFP.

Other causal conjunctions which were mentioned in Table 4.19 were also realized in the academic discourse from the Department of International Relations.

4.2.2.4 The Use of Temporal Conjunction

According to the further analysis of the use of conjunctions in the academic discourse from the Department of International Relations, it was found that the students used temporal conjunctions less than other types of conjunctions.

The overall distribution of temporal conjunctions within the selected data is shown in the given table.

Table 4.20

The Use of Temporal Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	When	39

	Then	17
	Since	49
	Before	12
Temporal Conjunction	Until	3
	Previously	3
	Next	5
	Finally	5
	First	33
	Meanwhile	12
	Eventually	11
	Soon	4
	Here	10
	Total	203

According to the data mentioned in the above table, it was found that "since" was the dominant temporal conjunction in the academic discourse from the Department of International Relations. "Since" occurred 49 times which accounted for 24.13% of all the temporal conjunction.

Following is an example of "since" taken from the academic discourse of the Department of International Relations.

"In Arctic region, there had been successful contacts <u>since</u> 1973 when agreement on the protection of polar bears was signed" *(Source: International Relations Corpus, Paragraph 29, Line 5)*

In the above-mentioned example "since" was used to connect an event to a specific point in time.

The students from the Department of International Relations also used other temporal conjunctions which were mentioned in table 4.20.

4.2.2.5 The Inappropriate Use of Conjunctions in the Academic Discourse from the Department of International Relations

The occurrence of inappropriate use of conjunctions in the academic discourse from the Department of International Relations was mentioned in Table 4.21 which is given below.

Table 4.21

Inappropriate Conjunction Use in Academic Discourse by the Department of International Relations

Types of Conjunction	Total no. of Inappropriate Use	Percentage
Additive Conjunction	20	47.6%
Adversative Conjunction	10	23.8%
Causal Conjunction	7	16.6%
Temporal Conjunction	5	11.9%
Total	42	

According to Table 4.21, it was found that in the academic discourse from the Department of International Relations, the total number of inappropriate use of conjunction was 42 times in which additive conjunctions were the dominant one with 20 occurrences (47.6%),

followed by adversative 10 times (23.8%), causal 7 times (16.6%), and temporal conjunctions were misused five times (11.9%).

Following are some examples of inappropriate use of conjunctions taken from the academic discourse from the Department of International Relations.

"But his victory instantly raised concerns among the Indian liberal class <u>and</u> as well as among the minorities because of the political experience of Modi" *(Source: International Relations Corpus, Paragraph 63, Line 4)*

In this example, the underlined additive conjunction "and" was misused. As well as is also an additive conjunction and the use of "and" was unnecessary. This contravention of the linguistic principle of conjunction causes confusion and disruptions to the sentence's natural flow.

"Currently, both these routes are impossible to navigate due to the ence of thick sea ice, except in extreme summers for a maximum of 3 to 4 months NSR and NWP are navigable for a small size vessel <u>but</u> with icebreakers escorting" *(Source: International Relations Corpus, Paragraph 54, Line 3)*

In this example, an adversative conjunction "but" was not used correctly. It should be omitted to establish the text's coherence.

"The ruling party has given punishment to the many authors and intellectuals under the "anti-national" law <u>due to</u> their disagreement with the current government" *(Source: International Relations Corpus, Paragraph 69, Line 3)*

In the above-mentioned example, a causal conjunction "due to" was misused by the student. There should be "for" instead of "due to". This transgression of the linguistic principle of conjunction makes the connections between the ideas incorrectly represented and affects the sentence's clarity.

"<u>Here</u> in the case of Kashmir, India did not care of any treaty or conventions based on universal moral principles" *(Source: International Relations Corpus, Paragraph 158, Line 5)*

In this example, "here" was not used correctly in this statement because it does not significantly add to its coherence. The word "here" would be removed, and the phrase would start with *"In case of Kashmir..."* for clarity and coherence.

The linguistic rule of conjunction concentrates on the proper application of cohesive elements to link concepts and create relationships between various textual elements. By indicating the logical relationships between words, sentences, or concepts, conjunctions serve an essential part in preserving coherence. The examples given by the Department of International Relations' academic discourse contain instances of improper conjunction use that go against the conjunction principle.

4.2.3   Ellipsis

Ellipsis happens when a sentence or clause is missing a crucial structural component that can only be regained by referring to a component in the previous text.

Table 4.13 indicated that there were two types of ellipsis which were used by the students from the Department of International Relations in their academic writings. The overall distribution of each type of ellipsis is shown in the following table.

Table 4.22

The Use of Ellipsis

Types of Ellipsis	Total no. of Occurrence
Nominal Ellipsis	141
Verbal Ellipsis	27
Clausal Ellipsis	0
Total	168

According to the data mentioned in the above table, it was found that the students from the Department of International Relations mostly used nominal ellipsis which occurred 141 times followed by verbal ellipsis which appeared 27 times.

Figure 4. 9

Ellipsis in the Academic Discourse from the Department of International Relations
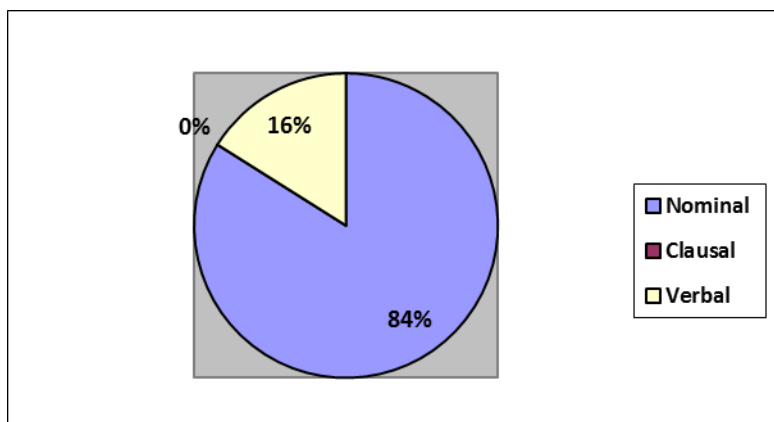
Figure 4.9 represents the distribution of various types of ellipsis including nominal, vernal, and clausal ellipsis. With 84% of the total, the pie chart's largest portion represented nominal ellipsis. The high percentage showed that students commonly used nominal ellipses to maintain coherence and conciseness in their academic discourse. Verbal ellipsis, which made up 16% of the total, was represented in the next section of the chart. The percentage showed that although using verbal ellipsis less frequently than nominal ellipsis, students still employed it to remove superfluous verb repetition. It's important to note that the pie chart did not have a segment for clausal ellipsis, which suggested that either the students did not use clausal ellipsis within their academic writing or that its use was insignificant.

4.2.3.1 Nominal Ellipsis

Nominal ellipsis is the omission of a noun. According to the data analysis in the above-mentioned table, nominal ellipsis occurred 141 times which accounted for 83.92% of all the ellipsis used in the academic discourse from the Department of International Relations.

Following is an example of nominal ellipsis taken from the academic discourse of the Department of International Relations.

"India exploits Pakistan's state by alleging that it lacks democratic credentials <u>and has</u> a challenge of extremism and terrorism" *(Source: International Relations Corpus, Paragraph 130, Line 6)*

In the above-mentioned example, the pronoun "it" was omitted from the underlined clause. The clause without an ellipsis could be "and it has a…"

4.2.3.2 Verbal Ellipsis

Verbal ellipsis is the omission of an item within a given verbal group. The data analysis indicated that verbal ellipses occurred 27 times, which means students used verbal ellipses in 16.07% of all the ellipses used by the students from the Department of International Relations.

The instance of verbal ellipsis realized in the selected data from the Department of International Relations is given below.

"Kashmir must be treated as a primary geo-political concern by the Pakistani state internally, and policy about it should be above political parties' politics <u>and in front of</u> the public to be scrutinized" *(Source: International Relations Corpus, Paragraph 129, Line 8)*

In this example, the underlined words "and in front" were omitted from "and it should be in front of". In this sentence "should be" was omitted from the verbal group which is a modal auxiliary verb.

4.2.3.3 Clausal Ellipsis

A clausal ellipsis is the omission of an item within the clausal group. From the detailed analysis of ellipsis, the researcher discovered no instances of clausal ellipsis in the selected academic discourse from the Department of International Relations.

4.2.3.4 The Inappropriate Use of Ellipsis in the Academic Discourse from the Department of International Relations

After analyzing the ellipsis in the academic discourse from the Department of International Relations, the researcher found only two inappropriate uses of nominal ellipsis which are given below.

"With the Chinese development of antipiracy mission, it has emerged as a befitting partner for most of the country's adjunct to the ocean <u>and were prone</u> to Piracy" *(Source: International Relations Corpus, Paragraph 184, Line 1)*

In this example, the omitted word was "it" from the underlined words and the helping verb "was" was used which made this instance incorrect. "It" should have been added to ensure subject-verb agreement, the inconsistent verb agreement results in an incorrect ellipsis. The correct sentence would be *"With the Chinese development of antipiracy mission, it has emerged as a befitting partner for most of the country's adjunct to the ocean and was prone to Piracy".*

"The Indian building of a nuclear-powered submarine has further exacerbated Pakistan's Maritime tensions <u>and has upsets</u> the balance of power between two arch-rivals. Pakistan's navy is consistently building up its Fighting arm and is reforming the naval structure by employing modernization which is a must thing for achieving vested interest" *(Source: International Relations Corpus, Paragraph 203, Line 2)*

In the above-mentioned example, the noun "the Indian building of submarine" was omitted from the underlined words. In this sentence, the helping verb of past perfect tense was used with which the form of the verb was not used appropriately. This ellipsis principle violation leads to an unfinished and grammatically false statement. The correct sentence would be *"The Indian building of a nuclear-powered submarine has further exacerbated Pakistan's Maritime tensions and upset the balance of power between the two arch-rivals. Pakistan's navy is consistently building up its Fighting arm and reforming the naval structure by employing modernization, which is a must for achieving vested interest"*

The investigation of the misuse of ellipsis in the academic discourse from the Department of International Relations highlighted the violations of the ellipsis linguistic principle. By looking at specific examples, it is clear how the improper removal of words or sentences interferes with the text's coherence and grammatical accuracy.

4.2.4 Substitution

Substitution is a process through which a long sentence can be replaced by a word or phrase. The three basic types of substitution in sentences are nominal, verbal, and clausal.

According to the detailed analysis of data from the Department of International Relations, it was inferred that substitution was the least used grammatical cohesive feature. The overall distribution of each type of substitution is shown in the following table.

Table 4.23

The Use of Substitution

Types of Substitution	Total no. of Occurrence
Nominal Substitution	42
Verbal Substitution	7
Clausal Substitution	8
Total	57

According to the above table, it was found that nominal substitution was shown to occur more frequently than other types of substitution in the academic discourse from the Department of International Relations. There were 42 instances of nominal substitution, followed by 8 instances of clausal substitution and 7 occurrences of verbal substitution.

Figure 4. 10

Substitution in the Academic Discourse from the Department of International Relations
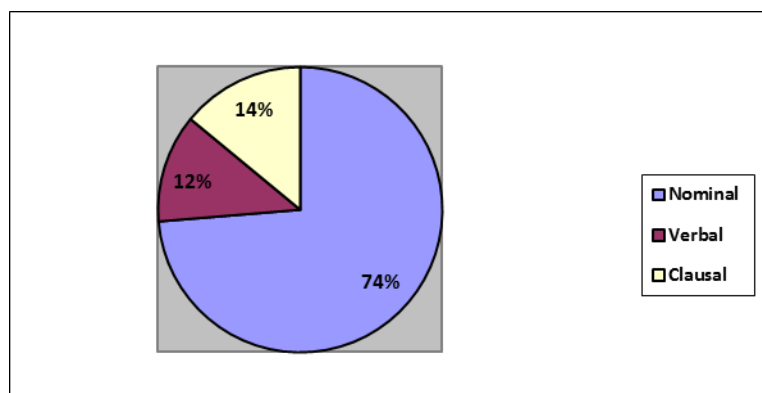
Figure 4.10 represents the prevalence of various types of substitution including nominal, verbal, and clausal substitution. Nominal substitution made up the greatest portion of the pie chart (74% of the whole). This kind of substitution aids in maintaining the text's clarity by preventing the repeated usage of the same term or noun phrase. The high percentage showed that students commonly used nominal substitution to improve coherence and prevent repetition in their academic writing. Clausal substitution, which accounted for 14% of the total, was represented in the next section of the graph. According to the percentage, students used clausal substitution less frequently than nominal substitution, but they nevertheless included it to improve coherence and prevent repetition at the clause level. Verbal substitution made up 12% of the whole in the smallest part of the chart. The percentage demonstrated that although verbal substitution was used less frequently than nominal substitution and clausal substitution, students nevertheless used it to improve cohesion and prevent verb repetition.

4.2.4.1 Nominal Substitution

Nominal substitution is used to replace a noun with any other word or phrase. In the academic discourse from the Department of International Relations, nominal substitution occurred 42 times which accounted for 73.68%.

Following is an example of nominal substitution that occurred in the selected academic discourse from the Department of International Relations.

"A prospective Russian NSR legislation has them on edge, though, as they believe Russia will blackmail <u>others</u> for its gains" *(Source: International Relations Corpus, Paragraph 11, Line 3)*

In the above-mentioned example the underlined word "others" was used to substitute a noun such as regions, or states (etc.).

4.2.4.2 Clausal Substitution

According to Table 4.23, clausal substitution was the second most frequently used type of substitution. Clausal substitution is a type of substitution in which the entire clause is substituted. Clausal substitution occurred 8 times which accounted for 14.03%.

Here is an example of clausal substitution that occurred in the selected academic discourse from the Department of International Relations.

"In the light of this saying Cohen, I analyze Pakistan's possible policy options on Kashmir post article 370, in doing <u>so</u>, like the previous chapter I divide this chapter into three key areas of geopolitics, geo-strategy and geo-economics" *(Source: International Relations Corpus, Paragraph 117, Line 2)*

In the above-mentioned example, the underlined word "so" substituted the entire previous clause *"I analyse Pakistan's possible policy options on Kashmir post article 370".*

4.2.4.3 Verbal Substitution

According to the data analysis in Table 4.23, it was found that verbal substitution was the less-used type of substitution in the academic discourse from the Department of International Relations. Verbal substitution occurred 7 times which accounted for 12.28%.

Here is an example of verbal substitution taken from the selected academic discourse.

"Then the BJP government and the PM Modi will link it with Pakistan and by keeping the hatred and offensive approach of Modi against Pakistan as he previously <u>did</u> during the incident of Palwana" *(Source: International Relations Corpus, Paragraph 94 Line 3)*

In this example, the underlined word "did" was used to substitute the action of Modi which he did during the Palwama incident which led to a nuclear war between the two countries.

4.2.4.4 The Inappropriate Use of Substitution in the Academic Discourse from the Department of International Relations

From an in-depth analysis of substitution in the academic discourse from the Department of International Relations, it became clear that the researcher had not come across any instances of substitution being used inappropriately. This indicates that the students adhered to the linguistic principle of substitution by successfully implementing substitution strategies in their writing.

4.2.5 Discussion

The results implied that the students from the Department of International Relations have an excellent knowledge of grammatical cohesive devices, particularly in light of the extent to which they use references and additive conjunctions. This may be because academic writing in the field of International Relations frequently relies on rational arguments and empirical data, requiring the use of cohesive devices to effectively support and link ideas.

However, the minimal use of temporal and adversative conjunctions might indicate a lack of variety in the students' writing, which may limit their ability to communicate complex and sophisticated ideas. This is consistent with the idea that academic writing requires a wide variety of cohesive devices to achieve coherence.

Additionally, the lack of clausal ellipsis in the students' writings indicated a lack of competence and accuracy in their sentence construction which may hinder their ability to convey complex ideas effectively. This is consistent with the theoretical viewpoint that a clausal ellipsis is a key tool for building complicated and coherent sentences.

Addressing inappropriate use, a lack of precision and clarity in the students' writing may be reflected in the frequent inappropriate use of references, especially demonstrative references. This is consistent with the theoretical viewpoint that improper use of reference might cause ambiguity in the text.

Overall, the findings emphasize the need to use an array of cohesive techniques to make academic writing coherent and understandable, particularly in the field of International Relations where the role of empirical data and rational argumentation is crucial.

4.3   Realization of Grammatical Cohesion in the Academic Discourse from the Department of Pakistan Studies

The following table shows the total frequency of grammatical cohesive devices in chapter five of the theses written by the students from the Department of Pakistan Studies.

Table 4.24

Grammatical Cohesion in Academic Discourse by the Department of Pakistan Studies

Grammatical Cohesion	Occurrence	
Reference	Personal	1235
	Demonstrative	3736
	Comparative	237
	Total	5208
Substitution	Nominal	12
	Verbal	4
	Clausal	3
	Total	19
Conjunction	Additive	1573
	Adversative	252
	Causal	186
	Temporal	129
	Total	2140
Ellipsis	Nominal	95
	Verbal	8
	Clausal	0
	Total	103
Grand Total		7,470

The present research analyzed ten theses from the Department of Pakistan Studies in which chapter five of each thesis was taken for the data analysis. From ten theses, it was found that there were four types of grammatical cohesive devices used by the students in chapter five of their theses. The above table indicated the distribution of grammatical cohesive devices in chapter five of ten theses written by the students from the Department of Pakistan Studies.

Ten theses from the Department of Pakistan Studies were examined for the current study, and chapter five from each thesis was used to analyze the data. According to the data analysis, the students used four different types of grammatical cohesive devices in chapter five of their theses.

Afterwards, by using AntConc software (3.5.8), the frequency count feature represented the number of times the types and sub-types of grammatical cohesion appeared in the selected corpus as listed in Table 4.24 above. According to the table, there were 7470 instances of grammatical cohesive devices. Comparing different types of reference, the reference was the most frequently used type of grammatical cohesion which occurred 5208 times. Then, 2140 different occurrences of conjunctions appeared. Then, the ellipsis appeared 103 times followed by the substitution which occurred 19 times.

Figure 4. 11

Grammatical Cohesion in the Academic Discourse from the Department of Pakistan Studies
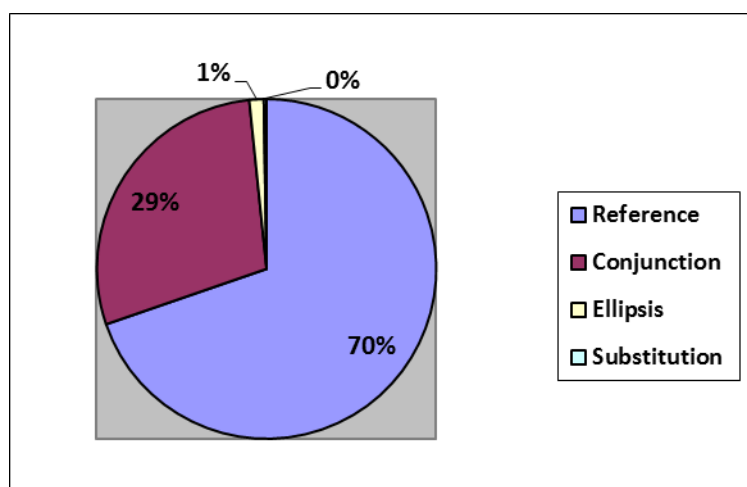
The frequency of each type of grammatical cohesion in the academic discourse written by the students from the Department of Pakistan Studies has been represented visually in figure 4.11. The figure shows that references, which include both personal and demonstrative references, accounted for the largest percentage (70%) of the total grammatical cohesive devices employed in chapter five of theses produced by the Pakistan Studies department's students. This suggested that a significant portion of the student's work contained references to ideas and concepts that had already been discussed. Conjunctions, which comprised additive, adversative, causal, and temporal conjunctions, accounted for the next-highest percentage (29%) of grammatical cohesive devices. This implied that the students made extensive use of conjunctions to link various ideas and concepts in their work. Ellipsis (1%) and substitution (0%) were the

smallest parts of the chart. This suggested that fewer students from the Pakistan Studies department used substitution and ellipsis in their academic writing. The lower percentages for substitution and ellipsis implied that the Pakistan Studies department's students might not have used these cohesive devices more often or as efficiently as reference and conjunctions.

4.3.1 Reference

The reference has been categorized into three categories; personal, demonstrative, and comparative.

According to the theses analysis, it was inferred that demonstrative reference was the dominant type of reference followed by personal reference and comparative reference. The overall distribution of each type of reference is shown in Table 4.25 which is given below.

Table 4.25

The Use of Reference

Type of Reference		Reference	Total use of Reference
Personal	Personal pronoun	I	47
		We	18
		You	2
		They	131
		He	93
		She	181
		It	172
	Possessive pronoun	My	5
		Our	8
		Their	227
		His	65
		Her	157
		Its	109
	Possessive adverb	Him	20
Demonstrative		This	227
		That	351
		These	82
		Those	15
		Here	2
		There	45

	Now	18	
	Then	11	
	The	2985	
Comparative	Similarly	12	
	Likewise	5	
	So	2	
	Other	88	
	Different	51	
	Less	13	
	Better	20	
	Equally	0	
	More	37	
	Moreover	8	
	Identically	0	
	Else	1	
	Total	5208	

According to the above-mentioned data, it was found that demonstrative reference (3736) was the dominant type of reference followed by personal reference (1235) and comparative reference (237).

Figure 4. 12

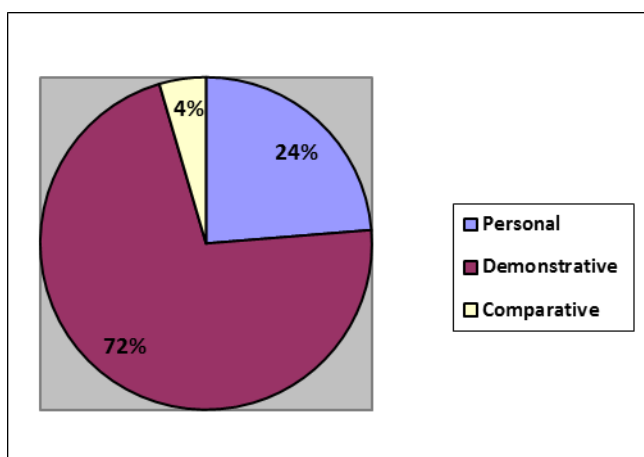*Reference in the Academic Discourse from the Department of Pakistan Studies*

Figure 4.12 represents the percentage of various forms of references used in academic discourse by the Pakistan Studies department's students. The figure demonstrated that

demonstrative references, which made up 72% of all references used in academic discourse by the Pakistan Studies department's students, were most commonly employed. 24% of the references were personal, whereas just four per cent were comparative references. The usage of demonstrative references suggested that students from the Department of Pakistan Studies frequently made textual references to particular items, ideas, or concepts. It may be inferred from this that they were more inclined to offer concise and precise instances to support their assertions and showed that they had a thorough understanding of the topic. The Pakistan Studies department's students, on the other hand, might be less inclined to compare various ideas or perspectives in their academic writing, as seen by the comparatively low percentage of comparative references employed.

4.3.1.1 The Use of Demonstrative Reference

Demonstrative reference is the verbal pointing using this, that, these, those, here, there, now, and then.

According to the detailed analysis of the demonstrative references used in the selected academic discourse from the Department of Pakistan Studies, it was found that the item "the" was used the most which occurred 2985 times and accounted for 79.89% of all the demonstrative references. In the selected discourse, it was used as the proximity (neutral) in demonstrative reference and also indicated the d noun determiner which pointed out the noun directly.

The example of "the" taken from the academic discourse of Pakistan Studies is given below.

"The Media which had been given various compensations by General Musharraf's regime provided full coverage to the incident of Earth Quake" *(Source: Pakistan Studies Corpus, Paragraph 113, Line 1)*

In the above-mentioned example, "the" was used as a noun determiner as it was modifying the nouns "media" and "incident".

4.3.1.2 The Use of Personal Reference

According to further analysis of reference, it was indicated that followed by demonstrative reference, personal reference was the second most frequent type of reference

occurred in the academic discourse from the Department of Pakistan Studies. The analysis indicated that among the personal references, the students from the Department of Pakistan Studies frequently used "their" which appeared 227 times and accounted for 18.38%. Following is an example of "their" taken from the academic discourse of Pakistan Studies.

"The analysis of above-processed data shows that most of the female members of UCs belong to old age group ((i.e.,) 55 and above) and these ladies are mostly uneducated and have no awareness about their jobs and rights" *(Source: Pakistan Studies Corpus, Paragraph 249, Line 1)*

In this example 'their' was used to refer back to the noun "female members" which was mentioned within a sentence.

The students from the Department of Pakistan Studies also used other personal references which were mentioned in table 4.25.

4.3.1.3 The Use of Comparative Reference

According to the data analysis in Table 4.25, it was implied that comparative reference was the least used type of reference in the academic discourse from the Department of Pakistan Studies. Comparative reference is used to show the comparison by using various adjectives and adverbs.

According to the distribution of comparative reference, the most frequently used comparative reference in the academic discourse of Pakistan Studies was "other" which appeared 88 times and accounted for 37.13% of all the comparative reference.

Following is an example of "other" taken from the academic discourse of the Department of Pakistan Studies.

"Water production in Pakistan is much lower than other countries, including our neighbouring India which is 0.1kg / m3 less than 0" *(Source: Pakistan Studies Corpus, Paragraph 49, line 1)*

In the above example "other" was used to refer to countries other than Pakistan. It referred to the thing being mentioned within a sentence.

Another comparative references such as likewise, similarly, so, different, more, better (etc.) were also realized in the academic discourse from the Department of Pakistan Studies.

4.3.1.4 The Inappropriate Use of Reference in the Academic Discourse from the Department of Pakistan Studies

The following table indicates the inappropriate use of reference by the students from the Department of Pakistan Studies in their academic discourse.

Table 4.26

Inappropriate Reference Use in Academic Discourse by the Department of Pakistan Studies

Types of Reference	Total no. of Inappropriate Use	Percentage
Personal Reference	33	13.1%
Demonstrative Reference	215	85.6%
Comparative Reference	3	1.19%
Total	251	

In the academic discourse from the Department of Pakistan Studies, there were 251 instances of inappropriate use of references overall, as shown in the table above. There were 215 instances of demonstrative reference (85.6%), which was found to be the most common form of improperly employing grammatical cohesion, followed by 33 instances of personal reference (13.1%) and comparative reference had 3 instances (1.1%) of inappropriate use.

Following are some examples of inappropriate use of reference realized in the academic discourse from the Department of Pakistan Studies.

"We have taken our problems in hand, and are trying to tackle the day by day; with the help of God" *(Source: Pakistan Studies Corpus, Paragraph 278, line 3)*

The underlined demonstrative reference "the" was used inappropriately in this example. The incorrect use of the demonstrative reference "the" instead of "them" caused a lack of precision and clarity. There should be "them" instead of "the" to maintain coherence.

"To elaborate their political role, sometimes CSOs arrange workshops, seminars, social gathering, public talks and publishing <u>its</u> reports for the youth political empowerment in Pakistan" *(Source: Pakistan Studies Corpus, Paragraph 39, line 10)*

In the aforementioned example, the underlined personal reference "it" was not used correctly as the subject in this sentence was plural therefore; a personal possessive reference "their" should be used instead of "its" which would have properly expressed the intended meaning and would have improved the sentence's coherence.

"Their focus should be on the circle of defence sector as compared to other areas" *(Source: Pakistan Studies Corpus, Paragraph 244, line 4)*

In the above-mentioned example, the underlined word was misused by the student as it was unnecessary there. The sentence would be rephrased to maintain clarity and coherence.

It can be inferred from the analysis of the inappropriate reference use in the academic discourse from the Department of Pakistan Studies that there were times when students disregarded the linguistic principle of cohesion particularly reference, which resulted in the inappropriate use of referential cohesive devices. To maintain clarity and consistency, the linguistic principle of reference places a strong emphasis on accurately identifying and describing the referent within a text.

4.3.2   Conjunction

A conjunction is used to join two or more sentences. There are four categories of conjunctions: adversative, additive, causal, and temporal.

According to the analysis of academic discourse from the Department of Pakistan Studies, it was found that there were four types of conjunction which were used by the students in their academic writings. The overall distribution of each type of conjunction is shown in table 4.27 which is given below.

Table 4.27

The Use of Conjunction

Type of Conjunction	Total no. of Occurrence
Additive	1573
Adversative	252
Causal	186
Temporal	129
Total	2140

According to the above-mentioned table, it was found that additive conjunction was the most frequently used type of conjunction which appeared 1573 times, followed by adversative which occurred 252 times and causal conjunction appeared 186 times. The temporal conjunction was the less-used type of conjunction which appeared 129 times.
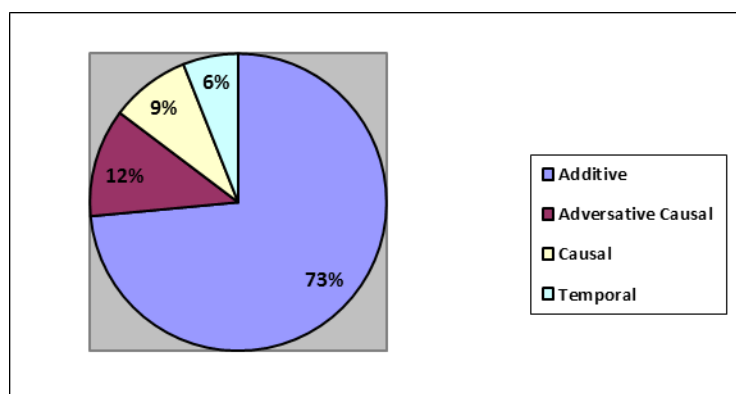
Figure 4. 13

Conjunctions in the Academic Discourse from the Department of Pakistan Studies

Figure 4.13 represents the distribution of different types of conjunctions in the academic discourse by Pakistan Studies department's students. According to the figure, additive conjunctions made up the greatest portion of the pie chart (73% of the whole). The high

percentage implied that students frequently used additive conjunctions to link and develop concepts in their academic writing. Adversative conjunctions, which made up 12% of the total, were represented in the next section of the chart. According to this percentage, students employed adversative conjunctions less frequently than additive conjunctions but employed them to highlight contrasting relationships in their academic writing. Causal conjunctions made up the next part, which comprised 9% of the whole. According to this proportion, students used causal conjunctions to explain things and make logical connections in their academic discourse. Temporal conjunctions, which made up 6% of the total, were represented by the smallest segment in the chart. The smaller proportion for temporal conjunctions showed that students utilized them less frequently in academic discourse than other types of conjunction.

4.3.2.1 The Use of Additive Conjunctions

The analysis of conjunctions used in the academic discourse from the Department of Pakistan Studies indicated that the students of this department mostly used additive conjunctions in the fifth chapter of their theses. Additive conjunction merely joins two sentences together. It occurred 1573 times in the selected academic discourse.

The following table indicates the overall distribution of additive conjunction in the selected academic discourse.

Table 4.28

The Use of Additive Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	And	1220
	Also	170
	Or	41
	Moreover	8
	As well as	20
	Furthermore	4

	Further	26	
	In addition	2	
	Besides	4	
	Either	13	
	Neither	3	
	Nor	2	
Additive Conjunction	On the other hand	8	
	Thus	19	
	Additionally	0	
	Likewise	5	
	Similarly	12	
	For example		7
	For instance	3	
	In contrast	0	
	I mean	0	
	That is	6	
	Total	1573	

According to the data mentioned in the above table, it was seen that the most frequently used additive conjunction in the academic discourse was "and" which occurred 1220 times and accounted for 77.55% of all the additive conjunctions.

Following is an example of "and" that occurred in the academic discourse from the Department of Pakistan Studies.

"In the above discussion, the research concludes that the Kashmiris are robbed of basic rights: right to live, right to health, right of self-determination <u>and</u> many more basic rights" *(Source: Pakistan Studies Corpus, Paragraph 1, Line 1)*

In this example, "and" was used to add something to the human rights which was mentioned in the sentence.

Other additive conjunctions mentioned in Table 4.28 were also used by the students from the Department of Pakistan Studies.

4.3.2.2 The Use of Adversative Conjunction

According to the further analysis of the use of conjunctions in the academic discourse from the Department of Pakistan Studies, it was found that students of this department used adversative conjunctions followed by additive conjunctions. Adversative conjunctions occurred 252 times. Adversative conjunctions are used to show the contrast between two or more statements in the sentences.

The overall distribution of adversative conjunctions in the academic discourse of Pakistan Studies is shown in the table given below.

Table 4.29

The Use of Adversative Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	But	103
	Though	10
	However	44
Adversative Conjunction	Only	72
	Yet	10
	On the contrary	1

At least	1
Actually	2
At the same time	3
In fact	2
Instead	4
Total	252

According to Table 4.29, the dominant adversative conjunction was "but" which occurred 103 times and accounted for 40.87% of the adversative conjunctions used in the academic discourse from the Department of Pakistan Studies. Following is an example of "but" taken from the selected academic discourse.

"He said that though the motive of business tourists is to meet with their business partners, they would also like to visit different historical archaeological and historical sites in Mardan" *(Source: Pakistan Studies Corpus, Paragraph 79, Line 4)*

In this example, "but" was used to show the contrast between two statements within a sentence.

Other mentioned adversative conjunctions were also used in the academic discourse from the Department of Pakistan Studies.

4.3.2.3 The Use of Causal Conjunction

According to the further analysis of the use of conjunctions in the academic discourse from the Department of Pakistan Studies, it was found that the third most frequently used type of conjunction was causal conjunctions which provide the results, causes, or purposes.

Causal conjunctions occurred 186 times which accounted for 8.69%. The distribution of each causal conjunction with their frequency is shown in the table given below.

Table 4.30

The Use of Causal Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	Because	28
	So	59
	Therefore	33
	Thus	19
Causal Conjunction	Hence	19
	Then	17
	Because of	19
	For this reason	1
	Consequently	8
	Total	186

According to the above-mentioned table, the most frequent causal conjunction was "so" which occurred 59 times and accounted for 31.72%.

Following is an example of "so" taken from the academic discourse of the Department of Pakistan Studies.

"So Jahanara along with other ladies approached various women associations and women conferences and committees for the women to support the women financial independencies bill to be passed, <u>so</u> the bill was added through a joint effort of the ladies of women association and political workers" *(Source: Pakistan Studies Corpus, Paragraph 288, Line 10)*

In this example, "so" was to connect reasons or causes, and results of a statement.

Other causal conjunctions which were mentioned in table 4.30 were also used by the students from the Department of Pakistan Studies.

4.3.2.4 The Use of Temporal Conjunction

According to the further analysis of the use of conjunctions in the academic discourse from the Department of Pakistan Studies, it was found that the students used temporal conjunctions less than other types of conjunctions.

The overall distribution of temporal conjunctions within the selected data is shown in the given table.

Table 4.31

The Use of Temporal Conjunctions

Type of Conjunction	Conjunctions	Total Use of Conjunctions
	When	51
	Then	11
	Since	6
	Before	3
Temporal Conjunction	Until	5
	Presently	1
	Next	8
	First	23
	Meanwhile	3
	Eventually	3
	Soon	10
	Here	2

Previously	3
Total	129

According to the above-mentioned table, it was inferred that among temporal conjunctions, "when" was the dominant temporal conjunction which occurred 51 times and accounted for 39.53% of all the temporal conjunctions used in the academic discourse from the Department of Pakistan Studies.

Following is an example of "when" taken from the selected academic discourse.

"Kashmir conflict arose <u>when</u> the humiliating treaty of Amritsar was signed between Gulab Singh (Raja of Jammu) and by Harding, Frederick Currie and Lawrence from the British side" *(Source: Pakistan Studies Corpus, Paragraph 2, Line 1)*

In the above-mentioned example, "when" was used to indicate when an action took place by demoting a specific point in time.

The students from the Department of Pakistan Studies used other temporal conjunctions as well which were mentioned in table 4.31.

4.3.2.5 The Inappropriate Use of Conjunctions in the Academic Discourse from the Department of Pakistan Studies

The occurrence of inappropriate use of conjunctions in the academic discourse from the Department of Pakistan Studies was given below:

Table 4.32

Inappropriate Conjunction Use in Academic Discourse by the Department of Pakistan Studies

Types of Conjunction	Total no. of Inappropriate Use	Percentage
Additive Conjunction	31	70.4%
Adversative Conjunction	6	13.6%

Causal Conjunction	6	13.6%
Temporal Conjunction	1	2.27%
Total	44	

Table 4.32 indicated that there were a total of 42 instances of inappropriate conjunction use in the academic discourse from the Department of Pakistan Studies. Additive conjunctions predominated with 31 instances (70.4%), followed by adversative conjunctions with 6 instances (13.6%), causal conjunctions with 6 instances (13.6%), and temporal conjunctions with just one instance (2.27%) of inappropriate use.

Following are some examples of inappropriate use of conjunction taken from the academic discourse from the Department of Pakistan Studies.

"By asking the question of that <u>either</u> CSOs can be influential to change the political structure of Pakistan by promoting or enhancing youth political participation, the response was mixed" *(Source: Pakistan Studies Corpus, Paragraph 32, Line 1)*

In the above-mentioned example, "either" an additive conjunction was not used appropriately. There should be "whether" instead of "that either" for more clarity and precision.

"He said that though the motive of business tourists is to meet with their business partners, they would also like to visit different historical archaeological and historical sites in Mardan" *(Source: Pakistan Studies Corpus, Paragraph 79, Line 4)*

In this example, "but" was not used correctly as there was no need to use "but" in this sentence because no contrasting ideas were being mentioned. "But" should have been removed to maintain coherence.

"Young children are impressionable and <u>thus</u> can easily be controlled and compelled to work for long shifts" *(Source: Pakistan Studies Corpus, Paragraph 193, Line 7)*

In this example, an additive conjunction "and" should be placed before an underlined causal conjunction "thus" as it disrupts the logical relationship between ideas.

"According to the government should introduce more developmental projects because tribal areas and Swat are less developed <u>than</u> other areas of Pakistan" *(Source: Pakistan Studies Corpus, Paragraph 215, Line 5)*

In the above-mentioned example, the underlined word "then" was not used appropriately. "Then" is a temporal conjunction and in this sentence there is a comparison between Swat and other areas of Pakistan therefore a comparative reference "than" should be used in place of "then".

The analysis conducted by the researcher identified violations of these rules in the context of misused, superfluous, omitted, and incorrectly placed conjunctions. These violations caused the discourse to be inconsistent, and unclear, and minimised the linkages between ideas.

4.3.3 Ellipsis

Ellipsis is the omission of a word or an item. It might be understood as a kind of substitution when the thing is replaced by nothing.

An overall distribution of each type of ellipsis is shown in the following table.

Table 4.33

The Use of Ellipsis

| Types of Ellipsis	Total no. of Occurrence
Nominal Ellipsis	95
Verbal Ellipsis	8
Clausal Ellipsis	0

Total	103

According to the data mentioned in the above table, it was found that the students from the Department of Pakistan Studies mostly used nominal ellipsis which occurred 95 times followed by verbal ellipsis which appeared 8 times.

Figure 4. 14

Ellipsis in the Academic Discourse from the Department of Pakistan Studies
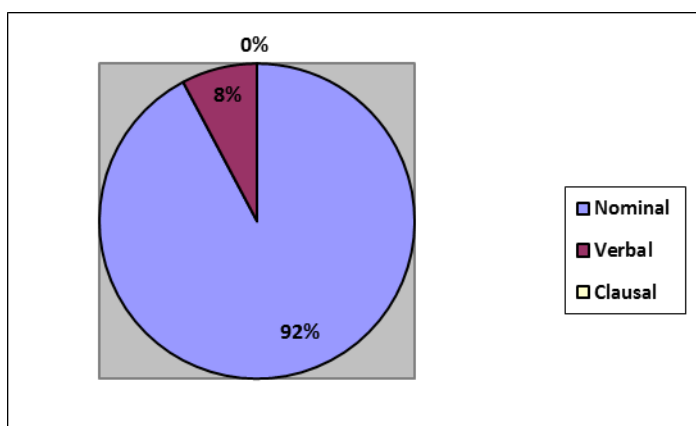
The distribution of different ellipsis types, including nominal, vernal, and clausal ellipsis, is shown in Figure 4.14. Nominal ellipses accounted for the greatest portion of the pie chart (92% of the total). The high percentage indicated that students frequently used nominal ellipses to keep their academic discourse coherent and cohesive. The next segment of the chart showed the verbal ellipsis, which accounted for 8% of the total. The percentage demonstrated that while employing verbal ellipsis less frequently than nominal ellipsis, students continued to use it to omit unnecessary verb repetition. It's significant to observe that the clausal ellipsis segment was missing from the pie chart, indicating that either the students did not employ clausal ellipsis in their academic writing or that its use was inconsistent.

4.3.3.1 Nominal Ellipsis

Nominal ellipsis is the omission of a noun. According to the data analysis in the above-mentioned table, nominal ellipsis occurred 94 times which accounted for 91.26% of all the ellipsis used in the academic discourse from the Department of Pakistan Studies.

Following is an example of nominal ellipsis taken from the selected data from the Department of Pakistan Studies.

"Similarly Pakistan has never left Saudi Arabia alone at its difficult time <u>and has always</u> stood by their side as a nation for any cause" *(Source: Pakistan Studies Corpus, Paragraph 244, Line 13)*

In the above-mentioned example, the noun "Pakistan" was omitted from the underlined phrase. The phrase without omission of a noun would be "and Pakistan has always stood".

4.3.3.2 Verbal Ellipsis

Verbal ellipsis is the omission of an item within a given verbal group. The data analysis indicated that verbal ellipses occurred 9 times, which means students used verbal ellipses in 8.73% of all the ellipses used by the students from the Department of Pakistan Studies.

The instance of verbal ellipsis realized in the selected data is given below.

"They could easily develop <u>and simultaneously destroy</u> the destination" *(Source: Pakistan Studies Corpus, Paragraph 74, Line 2)*

In this example, "and simultaneously destroy" was omitted from "and they could simultaneously destroy". A modal verb "could" was omitted within a verbal group.

4.3.3.3 Clausal Ellipsis

The researcher did not find any instance of clausal ellipsis in the selected academic discourse from the Department of Pakistan Studies.

4.3.3.4 The Inappropriate Use of Ellipsis in the Academic Discourse from the Department of Pakistan Studies

According to the detailed analysis of ellipsis in the academic discourse from the Department of Pakistan Studies, the researcher found two inapprospriate uses of verbal ellipsis which are given below.

"The majority of the respondents suggest that the government should resolve root level cause of the militancy on priority basis <u>and provides basic</u> facilities to the affected area" *(Source: Pakistan Studies Corpus, Paragraph 218, Line 1)*

In this example, a modal verb "should" was used therefore in the underlined phrase; "should" will be used with which the verb "provides" was incorrect. Therefore, there is a deviation between a modal verb and the verb that it follows. According to the ellipsis linguistic principle, the following verb should be in its base form when a modal verb is used. This linguistic principle violation causes a verb form inconsistency, which compromises the sentence's grammatical accuracy.

"In Pakistan, CSOs were not only working as a service provider in the humanitarian fields, and advocate masses needs, demands, but also playing its role to monitor governance and instructions" *(Source: Pakistan Studies Corpus, Paragraph 39, Line 4)*

In the above-mentioned example, "but also playing its role" was omitted from "but they were also playing their role". In this example the use of the reference item "it" was incorrect as it did not agree with the omitted part of the verbal group "they were". This sentence highlighted the deviation in preserving agreement between the pronoun substituted for the phrase that was omitted.

The deviations from the ellipsis linguistic rules produce grammatical issues and impair the sentences' clarity and consistency.

4.3.4 Substitution

Substitution is a process through which a long sentence can be replaced by a word or phrase. The three basic types of substitution in sentences are nominal, verbal, and clausal.

According to the detailed analysis of data from the Department of Pakistan Studies, it was inferred that substitution was the least used grammatical cohesive feature. The overall distribution of each type of substitution is shown in the following table.

Table 4.34

The Use of Substitution

Types of Substitution	Total no. of Occurrence
Nominal Substitution	12

Verbal Substitution	4
Clausal Substitution	3
Total	19

According to the above data, it was found that nominal substitution (12) was the most frequently used type of substitution followed by verbal (4) and clausal substitution (3).

Figure 4. 15

Substitution in the Academic Discourse from the Department of Pakistan Studies
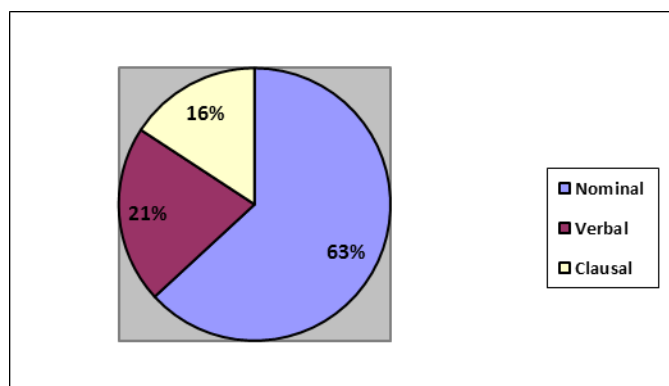
The frequency of different types of substitution, such as nominal, verbal, and clausal substitution, is shown in Figure 4.15. The pie chart showed that nominal substitution accounted for the majority of the total (63%). By avoiding the repetition of a term or noun phrase, this type of substitution helps to maintain the text's intelligibility. The high percentage indicated that nominal substitution was frequently utilized by students in academic writing to increase coherence and avoid repetition. The chart's next portion showed a representation of verbal substitution, which made up 21% of the total. Although students employed verbal substitution less frequently than nominal substitution, they nevertheless did so to increase coherence and avoid repetition of verbs, as indicated by the percentage. In the smallest area of the chart, clausal substitution accounted for 16% of the total. The percentage showed that although students employed clausal substitution less frequently than verbal and nominal substitution, they still did so to increase cohesion and avoid verb repetition at the clause level.

4.3.4.1 Nominal Substitution

An in-depth analysis of the data indicated that nominal substitution mostly occurred in the chosen academic writings. Nominal substitution is the replacement of a noun.

Following is an example of nominal substitution that occurred in the selected academic discourse from the Department of Pakistan Studies.

"Neither can change nor influence the system… Without practical work <u>one</u> cannot triumph over issues like the current example is IK government" *(Source: Pakistan Studies Corpus, Paragraph 32, Line 5)*

In this example, the underlined word "one" was used for a political party or government.

4.3.4.2 Clausal Substitution

According to Table 4.34, clausal substitution was the second most frequently used type of substitution.

Here is an example of clausal substitution that occurred in the selected academic discourse from the Department of Pakistan Studies.

"UN ordered both parties to call back their forces and the whole matter was supposed to be solved democratically but it was never the case as India refused to do <u>so</u> and took over Kashmir" *(Source: Pakistan Studies Corpus, Paragraph 3, Line 4)*

In the above-mentioned example, the underlined word "so" substituted the entire previous clause *"UN ordered both parties to call back their forces and the whole matter was supposed to be solved a democratically".*

4.3.4.3 Verbal Substitution

According to the data analysis in table 4.34, it was found that verbal substitution was the less-used type of substitution in the academic discourse from the Department of Pakistan Studies. Verbal substitution occurs when a verb is replaced with a word like do, did, done, or doing.

Here is an example of verbal substitution taken from the selected academic discourse.

"Another respondent replied that "I don't agree with this question. CSOs don't do such tasks rather they should not <u>do</u>" *(Source: Pakistan Studies Corpus, Paragraph 32, Line 3, 4)*

In this example, the underlined word "do" was used to substitute the verb.

4.3.4.4 The Inappropriate Use of Substitution in the Academic Discourse from the Department of Pakistan Studies

According to the analysis of substitution in the academic discourse from the Department of Pakistan Studies, the researcher did not find any inappropriate use of substitution. The lack of inappropriate substitution in the academic discourse from the Department of Pakistan Studies that has been examined suggested that writers in this discipline might have shown competence in using the substitution principle. They have used suitable word or phrase substitutions to improve text clarity, prevent repetition, and preserve consistency. Their academic discourse is more effective and professional as a result of their adherence to linguistic rules.

4.3.5   Discussion

According to the analysis of grammatical cohesive devices in the academic discourse from the Department of Pakistan Studies, it was found that students from this department favour some cohesive devices while having difficulty with others, which may have an impact on the coherence and clarity of their writing. According to the cohesion theory of Halliday and Hasan (1976), reference is an important cohesive device that connects a text by referring to something that has previously been mentioned or implied. It was discovered that Pakistan Studies students frequently used demonstrative references, which may indicate an inclination to support their points with concrete instances or visuals. However, the frequent inappropriate use of demonstrative references, which occurred 215 times, can point to a lack of knowledge about how to utilize them effectively to keep the conversation flowing and remove ambiguity.

Furthermore, additive conjunctions were also found to be the most commonly employed cohesive device in the academic discourse of Pakistan Studies, indicating an inclination for continuous writing styles. However, the students might find it difficult to use additive conjunctions to indicate logical relationships between clauses and to produce cohesive and coherent texts based on their inappropriate use, which occurred 31 times.

Moreover, the minimal use of substitution, the least frequent type of grammatical cohesion, might indicate that the students tend to favour shorter, simpler sentence structures rather than more complex ones. This might make it harder for them to write about complex ideas and arguments. The inappropriate use of ellipsis, despite its rarity, also showed a lack of awareness of how to use ellipsis to eliminate unnecessary information while preserving coherence.

Overall, according to the analysis of grammatical cohesive devices in the academic discourse of the Department of Pakistan Studies, it was inferred that while the students indicate a fundamental understanding of cohesive devices, there is still room for improvement in their application to increase clarity and cohesiveness in their writings.

4.4 Comparative Analysis of Grammatical Cohesive Patterns Used in the Academic Discourse from the Departments of Education, International Relations, and Pakistan Studies

After an individual analysis of academic discourse from the chosen departments, a comprehensive comparative analysis was done to see students of which department used cohesive patterns more and whose academic discourse lacked cohesion the most. For this purpose, the comparative analysis was described in three phases. Firstly, the researcher explained an overall distribution of grammatical cohesive patterns in the selected academic discourse. Secondly, the appropriate and inappropriate use of those grammatical features was explained and lastly, the researcher explained the reasons for the inappropriate use of grammatical cohesive devices.

4.4.1 The Overall Distribution of Grammatical Cohesive Features in the Academic Discourse from the Selected Departments

After analyzing the types of grammatical cohesion in the academic discourse from the selected departments individually, an overall analysis of grammatical cohesion in the academic discourse from all three selected departments was done by presenting the data in a tabular form to give a precise description and interpretation of the entire data. Table 4.35 indicates the overall use of grammatical cohesive devices in the selected academic discourse.

Table 4.35

Grammatical Cohesive Devices in the Academic Discourse from the Selected Departments

Department	Reference	Conjunction	Substitution	Ellipsis
Education	4052	1726	47	83
International Relations	6292	3228	57	168
Pakistan Studies	5208	2140	19	103
Total	15,552	7,094	123	354

From the data mentioned in the table above, it was inferred that reference was the dominant grammatical cohesive device employed in the academic discourse from the selected departments. In the selected academic discourse reference occurred 15,552 times, followed by the conjunction which occurred 7,094 times, and ellipsis which occurred 354 times. Substitution was the less-used type of grammatical cohesion which occurred 123 times within the selected academic discourse.

The extensive use of references in the academic discourse from the chosen departments is consistent with the Cohesion theory put forward by Halliday and Hasan. According to Halliday and Hasan (1976), reference is a key element of cohesion. Referencing a previously mentioned or newly mentioned entity helps to connect several parts of the text. It links words and paragraphs together, making the content cohesive and simple to understand. In academic writing, students are expected to show an in-depth knowledge of their arguments and opinions, and the effective use of references enables them to produce a piece of writing that is interconnected and cohesive. It may be inferred from this that the students from the chosen departments have a good understanding of how to employ references efficiently in academic discourse.

The extensive use of conjunctions in academic writing from the chosen departments also validates Halliday and Hasan's concept of cohesion. Conjunctions are used to link various textual elements together and to denote the connections between them. Therefore, they are extremely important for establishing coherence and unity in a text. It can be inferred that the student's major use of additive conjunctions indicates that they were good at connecting two or more parts in a

phrase or text with these conjunctions. Additionally, students used adversative, causal, and temporal conjunctions, and showed their understanding of the various types of conjunctions and how to use them effectively to build coherence.

However, the minimal use of substitution in the academic discourse from the chosen departments indicated that students might not be very familiar with this kind of grammatical cohesion. Halliday and Hasan (1976) defined substitution as a cohesive device used to substitute a word, phrase, or sentence to prevent repetition in the text. The less use of substitution in the academic discourse from the chosen departments might be a sign that the students were unaware of the importance of it in establishing unity in their academic writings. Similarly, the minimal use of ellipses indicated that the students were not good at employing this cohesive device. The use of ellipses, which remove words, phrases, or clauses that have already been referenced in the text, helps writers avoid repetition. The infrequent use of ellipses might indicate the students' lack of proficiency in using them effectively in academic writing.

In conclusion, the data analysis revealed that reference and conjunction were the most frequently used cohesive devices, whereas ellipsis and substitution were less frequently used by the students from the chosen departments. According to the results, students from the chosen departments have an adequate understanding of how to employ references and conjunctions to make their writing coherent, but they could still require additional guidance on how to use ellipses and substitution. Teachers may give students more specialized guidance and assistance to help them improve their use of grammatical cohesive devices in their academic discourse by having an in-depth understanding of the theoretical basis of cohesion.

4.4.2 Comparative Analysis of the Use of Grammatical Cohesive Devices in Academic Discourse across Three Departments

After analyzing the types of grammatical cohesion in the academic discourse from the selected departments individually, a comparative analysis of grammatical cohesion in the academic discourse from all three selected departments was done by presenting the data in a graph to give a precise description and interpretation of the entire data. Figure 4.16 indicated the overall use of grammatical cohesive devices in the selected academic discourse.

Figure 4. 16

Comparison of Grammatical Cohesive Devices in Academic Discourse across Three Departments
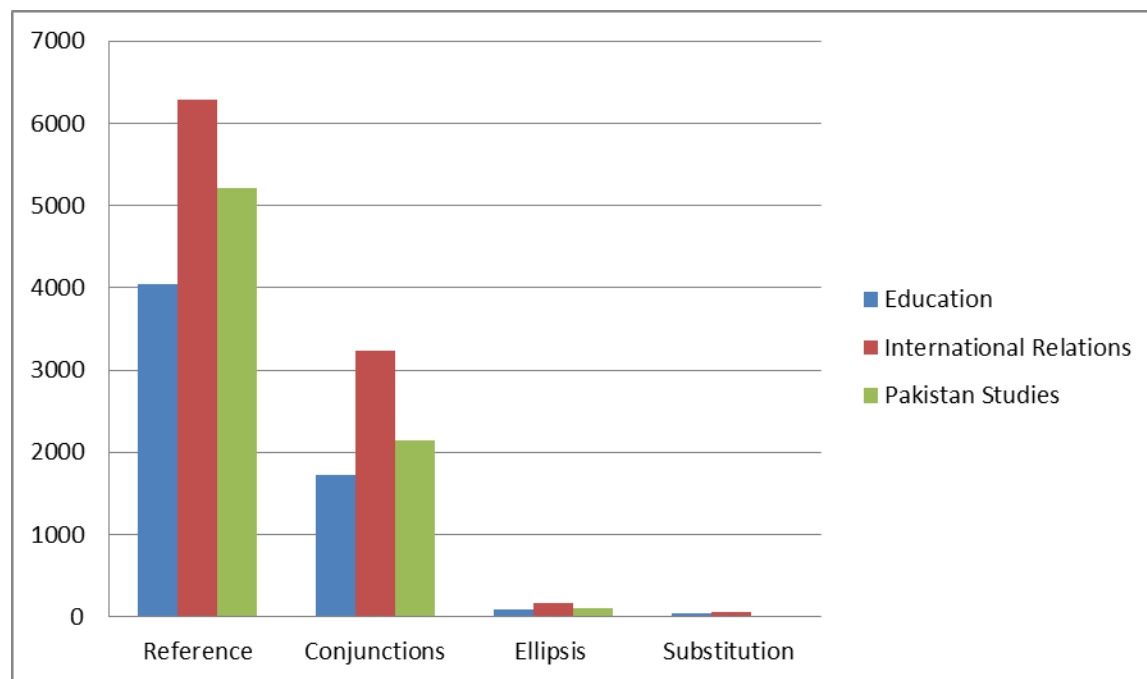
Further insights into the academic discourse of the three departments such as Education, International Relations, and Pakistan Studies have been provided by a comparative analysis of the three departments based on the distribution of grammatical cohesive devices in a graph.

According to the data presented in Figure 4.16, the Department of International Relations had the highest frequency of reference, with several 6292. This was followed by the use of reference in academic discourse by the Department of Pakistan Studies, with a frequency of 5208. The Department of Education had the lowest frequency of references, with several 4052. Despite variations in frequency, it was clear that reference was important in students' academic writing in all of these departments. In the case of conjunction, the Department of International Relations had a frequency of 3228, which was the highest frequency of conjunction across the selected departments. It was followed by the use of conjunction by the Pakistan Studies department's students with a value of 2140. On the other hand, students from the Department of Education used conjunctions the least frequently (1760 times on average). The difference in frequencies suggested that the use of conjunctions might vary across the chosen departments

because of their disciplinary preferences along with their writing styles. In terms of ellipsis, it has been found that the category of ellipsis had the highest frequency in the Department of International Relations, with an amount of 168, followed by the use of ellipsis in academic discourse of Pakistan Studies with a frequency of 103. The Department of Education had the lowest frequency of ellipsis, which was 83. Lastly, in the case of substitution, the Department of International Relations had a frequency of 57, which was comparatively higher than the substitution in the other two departments. Substitution in the Department of Education had a frequency of 47, and the use of substitution in the academic discourse by the Department of Pakistan Studies was 19, which was the lowest frequency of substitution across the three departments.

The data analysis revealed that there were both similarities and differences in the use of grammatical cohesive devices in the academic discourse of the selected departments.

There was a similarity in the use of references as all three departments primarily relied on the use of references to make their writings more cohesive. However, the frequency of various types of references was different among these departments. Among references, demonstrative reference was the most prevalent type in selected academic discourse. Personal references, on the other hand, were used less frequently, indicating a more objective style in their academic discourse.

In the case of conjunction, another similarity has been found that additive conjunctions were frequently used throughout departments. Students from the selected departments used additive conjunctions to present their information in a more precise and coherent way.

Despite having these similarities, the variation in the use of grammatical cohesive devices was also evident. First, among the three departments, International Relations differentiated for having the highest overall frequency of grammatical cohesive devices. This showed that the International Relations department's students employed coherent devices more frequently in their academic discourse, presumably demonstrating a better level of precision and accuracy in their writing. Additionally, there were noticeable variations in how particular cohesive devices were used. For instance, as compared to the other departments, the International Relations department's students used substitution more frequently. It might be assumed that the students

from the Department of International Relations used substitution to increase the precision and lexical variety in their discourse. Same as substitution, students from the Department of International Relations used ellipsis more frequently than other departments. The less frequent use of ellipses in the departments of Education and Pakistan Studies implied a preference for clearer, more in-depth language for the expression of ideas.

In conclusion, according to the comparative analysis of the use of grammatical cohesive devices among three departments of FSS, it was found that there were both similarities and differences between the three departments' employment of grammatical cohesive devices. Although reference and additive conjunctions were frequently utilized, there were differences in the frequency and types of devices that were employed that highlighted particular writing styles and academic writing practices. Based on the implications of the present study, students and researchers can improve their writing skills and use cohesive devices according to the standards of their specific fields of study.

4.4.3 The Appropriate and Inappropriate Use of Grammatical Cohesive Devices in the Academic Discourse from the Selected Departments

After describing the overall use of grammatical cohesive devices in the academic discourse from the selected departments of social sciences, the researcher explained the appropriate and inappropriate use of those types of grammatical cohesion in a tabular form to assist readers in interpreting the data precisely.

The following table indicates the appropriate and inappropriate use of the grammatical cohesive devices in the academic discourse from the selected departments.

Table 4.36

The Appropriate and Inappropriate Use of the Types of Grammatical Cohesion

Department	Reference		Conjunction		Substitution		Ellipsis	
	Correct Use	Misuse	Correct Use	Misuse	Correct Use	Misuse	Correct Use	Misuse
Education	3909	143	1700	26	47	0	81	2

International Relations	6069	223	3186	42	57	0	166	2
Pakistan Studies	4957	251	2097	44	19	0	101	2
Total	14,935	617	6,983	112	123	0	346	6

Table 4.36 indicates the total number of appropriate and inappropriate uses of grammatical cohesive devices which were realized in the academic discourse from the three chosen departments of Social Sciences. From the above-mentioned table; it was found that the students mostly used the grammatical cohesive devices appropriately while inappropriate use of those cohesive devices was less found. In detail, among the grammatical cohesion devices, reference was used appropriately 14,935 times which was the predominant of the correct use of grammatical cohesive devices and inappropriate use of reference was found 617 times. Meanwhile, in the above table, it was seen that conjunctions were used 6983 times correctly and only 112 times of inappropriate use of conjunctions was realized. The inappropriate use of ellipsis and substitution was found less.

Thus, it was discovered that, in general, students from the selected departments of social sciences used grammatical cohesive devices correctly; nonetheless, there were considerably fewer instances of incorrect use. Through this, it was implied that students had some difficulty using references to produce cohesiveness. In the subcategories of reference inappropriate use, demonstrative reference accounted for the most commonly misused type of grammatical cohesion, followed by personal reference and comparative reference. This suggested that students would require more direction and training to properly use these particular forms of references.

Furthermore, it was also implied that students from the selected department used conjunctions 112 times incorrectly but students had a sufficient understanding of using

conjunctions in their writings because they could use those devices to construct the sentences correctly. However, the occurrence of some inappropriate use suggested that students might require more instruction and direction on how to use conjunctions correctly in academic writing.

Ellipsis misuse was realized 6 times and no error in substitution was found. It did not imply that students did not make mistakes in using ellipsis and substitution but it could be implied that students from the selected departments might be unaware of using those grammatical features or they might intentionally avoid using them due to the fear of making mistakes.

The results of the analysis indicated that although students from the chosen departments of social sciences tend to employ cohesive devices appropriately, there is still room for improvement in some areas where they might benefit from additional guidance as well as instruction on how to use particular types of cohesive devices effectively. These results highlighted the significance of teaching and promoting the use of proper grammatical cohesive devices in academic discourse to improve the ability of students to create cohesive and coherent pieces of writing.

4.4.4 Discussion on Overall Findings

The analysis of the use of grammatical cohesive patterns in the academic discourse from three selected departments of FSS at NUML showed some intriguing findings. The main focus of the analysis was to identify the types of grammatical cohesive devices used by the students in their academic discourse, the most common types of these cohesive devices, the appropriate and inappropriate use of those cohesive devices, and the reasons why the students used those cohesive inappropriately in their academic discourse.

According to the results of this study, references were used as a grammatical cohesive device the most frequently among the three chosen departments, followed by conjunctions, ellipses, and substitution, which implies that students from those three departments used references more frequently than other types of grammatical cohesion. Among references, demonstrative and personal references were frequently used by the students to build connections between textual elements. By the predominance of reference, it did not necessarily infer that the students' academic writing was effective. It was implied that they overused references,

encouraging them to repeatedly use references to establish links between textual components. The findings align with the previous study conducted by Hyland (2005), which also highlighted the significance of reference in academic writing including demonstrative references and personal references. The study demonstrated that reference is essential in establishing cohesion and coherence in a text. In the context of the present study, the students' frequent use of references can be interpreted as an effort to draw links between textual components, but it may also point to the necessity for more extensive referencing methods and the avoidance of patterns of repetition.

Followed by reference, students from the selected departments used conjunctions more frequently. Among conjunctions, additive conjunctions were the most frequently used type which indicated that students from the selected departments tend to use conjunctions to join words, phrases, and clauses. It was implied that the students were aware of creating cohesion by using connections and linking textual components together. Qasim et al. (2020) looked at the conjunctive cohesive devices in research publications written by Pakistani academics as part of their study. They discovered that these publications frequently used additive conjunctions to connect sentences and paragraphs, demonstrating the authors' purpose to deliver cumulative information and uphold consistency in their writing. This result is consistent with the present study's finding that students from the chosen departments frequently utilize additive conjunctions to connect words, phrases, and clauses, indicating that they are aware of the need to use connections to provide academic writing coherence and cohesion.

Additionally, it was discovered that in the academic discourse from the chosen departments, ellipses placed third in terms of frequency of use dominated by nominal ellipsis and verbal ellipsis. However, no instance of clausal ellipsis was realized in the academic discourse from the selected departments. The use of substitution had the lowest use than other types of grammatical cohesion in the academic discourse from chosen departments. The less use of ellipsis and substitutions suggested that the students from the selected departments were not much aware of using ellipsis and substitutions in the written discourse. It was also implied that ellipsis and substitutions are mostly used in spoken discourse or dialogues. The focus on the use of references as a major cohesive technique is in line with the cohesion theory put forward by Halliday and Hasan (1976), which holds that reference is crucial for establishing the coherence

of the text. The results verified their findings and suggested that students from the chosen departments also emphasized the use of reference in their academic writing. The results of this study were also consistent with those of Abdurahman et al. (2013), who found that out of all the cohesive features, reference was utilized the most frequently and substitution was used the least frequently. The predominance of references did not, however, automatically mean that the student's essay writing was successful. It was implied that they repeatedly used references to bind text elements together, overusing references as a result. Although researchers stated that both substitution and ellipsis were frequently seen in speaking (Halliday, 1996), they did not employ another form of grammatical cohesion, particularly the use of substitution and ellipsis, which were capable of being used in writing. The results of the present study also align with the study conducted by Prasetyaningrum et al. (2022), which also highlighted that students relied heavily on references and conjunctions to establish cohesion in their theses. The similarity of these studies indicated that the use of cohesive devices in academic writing is a widespread practice, which emphasizes the significance of these devices for attaining coherence in written discourse.

Following that, it can be inferred from the findings of appropriate and inappropriate use of grammatical cohesive patterns that, when compared to the total inappropriate use gained, the majority of students had sufficient understanding to use the grammatical cohesive elements appropriately in creating text cohesion. The predominance of references in the inappropriate use indicated that students were having trouble using references to create links between sentences. The results are consistent with other research that examined the appropriate and inappropriate use of grammatical cohesive patterns in academic writing. For instance, researchers studied how undergraduate students used cohesive devices and discovered that while there was a basic knowledge of these elements, there were some instances of incorrect use, notably in the case of reference. This implies that problems with establishing sentence links via references are not specific to the present study but have been noted in other studies as well. The less inappropriate use of conjunctions, ellipsis and no inappropriate use of substitution did not imply that the students used these devices appropriately rather it was inferred that students from the chosen departments might not be aware of employing those grammatical features, or they could purposely avoid using them out of a fear of making mistakes. Abuallail, K. R. (2020) also looked into the use of grammatical cohesive devices in grade 11 L2 learners' descriptive essays at a

private school in RAK, UAE. The study found that the L2 learners had difficulties because of the misuse, overuse or underuse of cohesive devices, which maintain cohesion and coherence in a text. These results confirm the conclusion of the present study that rather than appropriate use, students' lack of understanding or deliberate avoidance of conjunctions, substitution, and ellipsis may be responsible for the lower incorrect use of these devices in the present study.

In conclusion, the research indicated that to improve the quality of their academic writing, students should increase their application of cohesive devices, especially references. This study may help both teachers and students to create efficient methods for using grammatical cohesive patterns in academic discourse.

4.5　Summary

The process of data analysis used in the next parts is explained at the beginning of this chapter. Section 4.1 explains the use of grammatical cohesive devices in the academic discourse from the Department of Education. Section 4.2 presents the analysis of grammatical cohesive devices in the academic discourse from the Department of International Relations. Moreover, section 4.3 presents the analysis of the use of grammatical cohesive devices in the academic discourse from the Department of Pakistan Studies. In section 4.4, a comparative analysis of grammatical cohesive patterns in the academic discourse from the departments of Education, International Relations, and Pakistan Studies has been presented which also includes the appropriate and inappropriate use of those grammatical cohesive devices as well as the causes of students' inappropriate use of those grammatical cohesive devices. The final section 4.5 provides a summary of this chapter.

In the next chapter, the researcher answers the main research questions in detail. The whole study is concluded and recommendations are given for future researchers.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

In this chapter, the researcher has provided the overall findings of the present research in the light of three questions being formulated for this study. Moreover, this chapter provides recommendations for future researchers and conclusions.

5.1 Summary of Findings and Research Questions

The focus of the present study is to investigate the use of grammatical cohesive patterns in the academic discourse from the departments of Education, International Relations, and Pakistan Studies at NUML. The analysis was carried out progressively by incorporating several research tools, establishing a theoretical framework, and providing an interpretation of the selected academic discourse. The findings of the present study have been explained below.

5.1.1 Findings of the First Research Question

The first research question of the present study was:

- What types of cohesive devices are frequently employed in the academic discourse of students in the Faculty of Social Sciences (FSS) at NUML?

To answer this question, the researcher used the analytical framework of Cohesion proposed by Halliday and Hasan (1976) to analyze the types of grammatical cohesion used in the academic discourse of students in the faculty of social sciences at NUML. For that, the researcher used AntConc (3.5.8) to find out the frequency of each type of grammatical cohesion employed in the selected academic discourse. The academic discourse from each department has been analyzed individually to see the most frequently used cohesive devices in this selected academic discourse. The findings of the study indicated that reference was the most frequently used type of grammatical cohesion in the academic discourse from the selected departments in FSS at NUML. The excessive use of references in the academic discourse did not imply that the student's academic discourse was effective because of the predominant use of references; rather

it implied that they used references repeatedly which is ineffective. Following references, conjunctions came in second place in the academic discourse from the departments of Education, International Relations, and Pakistan Studies, showing that students link concepts and make logical relationships between paragraphs and sentences using conjunctions. This is a crucial skill in writing for students since it makes an argument more logical and cohesive. In addition, ellipsis was the third most commonly used grammatical cohesive device, indicating that the students used ellipsis to omit words or phrases. This can help students minimize repetition and keep their writing clear and simple. Meanwhile, substitution was the least commonly used type of grammatical cohesion in the academic discourse from the selected departments. Substitution is the replacement of a word with another that conveys the same meaning. Due to its limited use, it might be inferred that students found it difficult to effectively use this cohesive element in their writings.

Hence, it was concluded that reference was the most frequent type of grammatical cohesion employed in the academic discourse from the selected departments. Overall, the analysis of cohesive devices used in the academic discourse of students in the FSS at NUML highlighted the importance of the effective use of grammatical cohesion in academic writing. While students frequently use some cohesive devices, such as references and conjunctions, their use of ellipses and substitution could be more effective with further guidance and instruction.

5.1.2 Findings of the Second Research Question

The second research question of the present study was:

- How do cohesion patterns deviate in the academic discourse of students in FSS at NUML?

To answer this question, the researcher used textual analysis of the selected academic discourse individually to see the inappropriate use of cohesion patterns by the students from FSS at NUML. Following this analysis, it was discovered that reference predominated in the inappropriate use of grammatical cohesive devices in the academic discourse from the departments of Education, International Relations, and Pakistan Studies. Moreover, the inappropriate use of conjunctions was the second common type of deviation in the academic discourse from the chosen departments. In terms of ellipsis and substitution, it was discovered

that there were only six cases of inappropriate ellipsis use in the academic discourse from the selected departments, and there were no instances of inappropriate substitution use. According to the overall appropriate and inappropriate use of grammatical cohesive devices (cf. Table 4.36), the inappropriate use of these devices was significantly less than the appropriate use.

These findings indicated that students from the chosen departments might find it challenging to use suitable cohesive devices in their academic writing, especially when it comes to references and conjunctions. These deviations from traditional academic writing patterns might result in confused and unclear pieces of writing, which could hurt their academic performance and grades. Therefore, educational institutions must give students clear instructions and assistance as they develop their abilities to use cohesive devices effectively.

Furthermore, it is also crucial to remember that the current study solely concentrated on the academic discourse written by students from three departments at a single university. As a result, the results may not be representative of other academic settings or departments. To acquire a deeper understanding of the difficulties students have while using cohesive devices in academic writing, future studies should look into cohesion pattern deviations in a broader variety of academic discourse.

5.2   Conclusion

The present research examined the appropriate and inappropriate use of cohesion in academic discourse. Cohesion is classified into two categories: grammatical cohesion and lexical cohesion. In this study, the researcher focused on grammatical cohesion only. Grammatical cohesion is divided into four types: reference, conjunctions, substitution, and ellipsis. Reference embodies personal, demonstrative, and comparative references, and conjunction has four types, such as additive, adversative, causal, and temporal conjunctions. Substitution has three types: nominal, verbal, and clausal substitution. Likewise, ellipsis consists of three subtypes, such as nominal, verbal, and clausal ellipsis.

Moreover, the data was taken from the academic discourse of students from FSS at NUML, and the researcher selected 30 theses from three departments of social sciences with 10 theses from each department for the year 2020-2021. The researcher employed the cohesion model proposed by Halliday and Hasan (1976) for analyzing the data.

Based on the results of the data analysis, the researcher found that students from the selected departments used a sufficient number of grammatical cohesive devices in their academic discourse, particularly references and conjunctions along with their subtypes. Ellipsis and substitution were found infrequent in the selected academic discourse.

Furthermore, after analyzing the data, the researcher discovered that the most common type of grammatical cohesion was reference (12.53%), followed by conjunctions (5.71%), and ellipses (0.28%). Substitution (0.09%), on the other hand, was the least used type of grammatical cohesion in the academic discourse from the selected departments.

The inappropriate use of these grammatical cohesive patterns was also compared with the appropriate use, and it was found that the appropriate use of devices was more than the inappropriate use. It did not imply that the students used those devices more appropriately; rather, the students used these devices excessively, which was not effective.

Although the current research provides results regarding grammatical cohesive devices, it has its limitations. This study has some implications for teaching and learning English. It is, therefore, suggested that educational institutions review the contents of English courses and include mechanics of academic writing as well as knowledge about the features of cohesion and coherence in the curriculum. It is important that students become aware of the significance of cohesive devices in producing well-structured sentences in their academic writing and should be trained for the same. Such actions could ultimately result in improved language skills and academic discourse.

5.3   Linguistic Contributions and Educational Implications

In this study, a significant linguistic contribution is presented using a thorough analysis of the frequency of grammatical cohesive devices in the academic discourse of the Faculty of Social Sciences at NUML. With the use of AntConc for quantitative analysis and the analytical framework of M.A.K. Halliday and Ruqaiya Hasan (1976) for qualitative insights, the study uses a mixed-methods approach. The complexities with which students from various departments employ cohesive devices in their theses are explained by this dual-method analysis. Beyond merely identifying linguistic patterns, the research adds to our knowledge of common academic

writing structures and offers insightful information on how these linguistic elements support written discourse meaning and coherence.

Additionally, the study adds to the growing body of knowledge on writing proficiency and second language learning. The results provide subtle insights into the strategies and difficulties of using cohesive devices, especially while writing academic discourse in the context of social sciences. In addition to providing educators and researchers studying second language acquisition with helpful knowledge, this also adds valuable insight to the broad discourse on successful writing skills. Moreover, the research provides practical implications for English teachers who have been teaching in the faculty of social science as they can adapt their pedagogical strategies to include lessons on academic writing especially on cohesive devices, as well as policymakers or curriculum designers may consider including courses on academic writing skills within the departments of social sciences. It establishes a clear link between academic research and useful recommendations for educational practitioners.

5.4   Recommendations for Future Researchers

The current study has made a linguistic contribution by investigating the appropriate and inappropriate use of grammatical cohesion in academic discourse written by postgraduate students. After discussing the findings of the study, some recommendations for future research are made. All features of cohesion were not addressed in this study. The researcher only selected grammatical cohesion for this study. The researcher recommends that other features of cohesion (grammatical and lexical) be examined in future research.

For this research, the researcher has chosen written academic discourse of research theses for the analysis. Future researchers can work on the research synopses discourse for analysis. In addition, more research can be conducted on cohesive devices in the academic discourse produced by students at the BS and masters levels. This study has only examined dominant types of grammatical cohesion. It is suggested that future researchers explore the functions of cohesive devices and analyze them more comprehensively.

Additionally, the current study examined the use of grammatical cohesive devices in the conclusion chapter of postgraduate theses from the selected departments of the faculty of social sciences NUML but other studies might be conducted by looking at the introductory or

other chapters of theses from the same or other departments belonging to the faculties of social sciences, management sciences or computer sciences.

Overall, the present study has contributed to a better comprehension of the factors that determine both the appropriate and inappropriate use of these grammatical cohesive devices by offering insightful information on the use of grammatical cohesion in academic discourse written by postgraduate students.

REFERENCES

Abrar, M. (2016). Teaching English Problems: An Analysis of EFL Primary School Teachers in Kuala Tungkal. Birmingham, UK: *The 16th Indonesian Scholars International Convention* https://www.researchgate.net/publication/314280291_TEACHING_ENGLISH_PROBL EMS_AN_ANALYSIS_OF_EFL_PRIMARY_SCHOOL_TEACHERS_IN_KUALA_T UNGKAL

Abuallail. K. R. (2020). *An Investigation of the Use of Grammatical Cohesive Devices in Grade 11 L2 Learners at a Private School in RAK, UAE* (Doctoral dissertation, The British University in Dubai (BUiD)). https://bspace.buid.ac.ae/items/9690d240-e91a-4e63-aa3a-f5c01e86a848

Abu-Ghararah, A. H. (1998). *Teaching English as a Foreign Language: Procedures, Techniques and Activities.* (p. 87). Riyadh: Tawbah Library. https://books.google.com.pk/books/about/Teaching_English_as_a_Foreign_Language.ht ml?id=OcP0zQEACAAJ&redir_esc=y

Adam, N., Abid, A., & Bantulu, Y. (2021). Challenges in Teaching English Writing Skills: Lessons Learnt from Indonesian High School English Language Teachers. *Jambura Journal of English Teaching and Literature*, 2(1), 12-21. https://doi.org/10.37905/jetl.v2i1.10632

Afzaal, M., Hu, K., Chishti, M. I., & Imran, M. (2019). A Study of Pakistani English Newspaper Texts: An Application of Halliday and Hasan's Model of Cohesion: A Discourse

Analysis. *International Journal of English Linguistics*, *9*(5), 78. https://doi.org/10.5539/ijel.v9n5p7

Aguieb, F., & Bouaziz, S. (2017). Investigating EFL Students' Problems in Using Coherent and Cohesive Devices in Academic Writing from a Discourse Analysis Perspective. http://bib.univ-oeb.dz:8080/jspui/handle/123456789/3819

Ahmad, M., Shah, S. K., & Mushtaq, M. (2019). Cohesion in Argumentative Writing: A Case Study of Pakistani Essay Writers. *Revista Dilemas Contemporáneos: Educación, Política y Valores.* https://doi.org/10.46377/dilemas.v27i1.1578

Ahmad, N., Ahmaad, S., Bukhari, M. A., & Alam, T. (2011). The Nature of Difficulties in Learning English by the Students at Secondary School Level in Pakistan. *Journal of Education and Practice*, *21*(01), 18-24. https://d1wqtxts1xzle7.cloudfront.net/13145774/11.The_Nature_of_Difficulties_in_Learning_English_by_the_students_at_Secondary_School_level_in_Pakistan-libre.pdf?1390862354=&response-content-disposition

Ahmed, A. H. (2010). Students' Problems with Cohesion and Coherence in EFL Essay Writing in Egypt: Different Perspectives. *Literacy Information and Computer Education Journal (LICEJ)*, *1*(4), 211-221. https://doi.org/10.20533/licej.2040.2589.2010.0030

Al Badi, I. A. (2015). Academic Writing Difficulties of ESL Learners. *The 2015 WEI International Academic Conference Proceedings*, *1*(1), 65-78. https://www.westeastinstitute.com/wp-content/uploads/2015/02/Ibtisam-Ali-Hassan-Al-Badi-full-Paper.pdf

Al Fadda, H. (2012). Difficulties in Academic Writing: From the Perspective of King Saud University Postgraduate Students. *English Language Teaching*, *5*(3). https://doi.org/10.5539/elt.v5n3p123

Alfaki, I. M. (2015). University Students' English Writing Problems: Diagnosis and Remedy. *International Journal of English Language Teaching, 33*(3), 40-52. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Alfaki%2C+I.+M.+%282015%29.+University+students%E2%80%99+English+writing+problems%3A+Diagnosis+and+remedy.+International+Journal+of+English+Language+Teaching%2C+33%283%29%2C+40-52.+&btnG

Almutairi, N. D. (2017). Discourse Analysis of Cohesive Devices in Saudi Student's Writing. *World Journal of Educational Research, 4*(4), 516. https://doi.org/10.22158/wjer.v4n4p516

Alqasham, F. H., Al-Ahdal, A. A. M. H., & Babekir, A. H. S. (2021). Coherence and Cohesion in Saudi EFL learners' Essay Writing: A Study at a Tertiary-Level Institution. *Asian EFL J. Res.Artic*, *28*,8-25. https://www.researchgate.net/publication/349256060_Coherence_and_Cohesion_in_Saudi_EFL_Learners'_Essay_Writing_A_Study_at_a_Tertiary-level_Institution

Anthony, L. (2005). AntConc: Design and Development of a Freeware Corpus Analysis Toolkit for the Technical Writing Classroom. In *IPCC 2005. Proceedings. International Professional Communication Conference, 2005,* (pp. 729-737). IEEE. https://doi.org/10.1109/ipcc.2005.1494244

Anthony, L. (2019). *Laurence Anthony's Homepage*. Laurence Anthony's. https://www.laurenceanthony.net/software

Anwar, M. C. (2017). *Exploring Cohesive Devices on the Abstracts of Undergraduate Thesis Written by English Language Teaching Department Students of IAIN Syekh Nurjati Cirebon in October 2016 (Qualitative Research)* (Doctoral dissertation, IAIN Syekh Nurjati Cirebon). https://core.ac.uk/download/pdf/147421194.pdf

Anyiendah, M. S. (2017). Challenges Faced by Teachers When Teaching English in Public Primary Schools in Kenya. *Frontiers in Education*, *2*. https://doi.org/10.3389/feduc2017.00013

Asep, S. (2014). The Challenges in Teaching Writing Skill at Junior High School: Problems and Solutions. *Journal*. https://www.scirp.org/reference/referencespapers?referenceid=2645605

B. Alarcon, J. (2013). Lexical Cohesion in Students Argumentative Essay Among a Select Group of Filipino College Students. *I-manager's Journal on English Language Teaching*, *3*(2), 43-52. https://doi.org/10.26634/jelt.3.2.2298

Bahaziq, A. (2016). Cohesive Devices in Written Discourse: A Discourse Analysis of a Student's Essay Writing. *English Language Teaching, 9*(71), 112-119. https://doi.org/10.5539/elt.v9n7p112

Baker, P. (2006). *Using corpora in Discourse Analysis*. Bloomsbury Publishing.

Biber, D. (2010). Corpus-Based and Corpus-Driven Analyses of Language Variation and Use. In *B. Heine, & H. Narrog, The Oxford Handbook of linguistic analysis* (pp. 161-191). London: Oxford University Press.

Bloor, T., & Bloor, M. (2004). *The Functional Analysis of English* (2nd ed.). Great Britain: Arnold Publisher.

Brown, H. D. (n.d.). *Teaching by Principles* (2nd ed., p. 344). Longman, 2000.

Burke, S. B. (2010). *The Construction of Writer Identity in the Academic Writing of Korean ESL Students: A Qualitative Study of Six Korean Students in the U.S* (Doctoral dissertation). https://www.proquest.com/openview/7b5e9b510d741a0cde550fb5be43649f/1?pq-origsite=gscholar&cbl=18750

Dewi, A. (2015). *Perception of English: A Study of Staff and Students at Universities in Yogyakarta, Indonesia.* Cambridge Scholars Publishing.

Ellis, R. (1994). *The Study of Second Language Acquisition*. Oxford University.

Fareed, M., Ashraf, A., & Bilal, M. (2016). ESL learners' Writing Skills: Problems, Factors and Suggestions. *Journal of Education & Social Sciences*, *4*(2), 83-94. https://doi.org/10.20547/jess0421604201

Farooq, M. S., Uzair-Ul-Hassan, M., & Waheed, S. (2020). Opinion of Second Language Learners about Writing Difficulties in English Language. *South Asian Studies, 27*(1). https://www.researchgate.net/publication/330170345_Opinion_of_Second_Language_Learners_about_Writing_Difficulties_in_English_Language

Foster, B. (2016). Teaching Children with Reading Comprehension Difficulties. *Reading Development and Teaching*, 180-198. https://doi.org/10.4135/9781473920170.n10

Froehlich, H. (2015). Corpus Analysis with AntConc. *Programming Historian*. https://www.proquest.com/openview/a27530e58f7bc7321752b7cf9c9d9a45/1?pq-origsite=gscholar&cbl=6458210

Gerot, L., & Wignell, P. (1995). *Making Sense of Functional Grammar*. Australia: Gerd Stabler.

Ghasemi, M. (2013). An Investigation into the Use of Cohesive Devices in Second Language Writings. *Theory and Practice in Language Studies*, *3*(9). https://doi.org/10.4304/tpls.3.9.1615-1623

Graesser, A. C., McNamara, D. S., Louwerse, M. M., & Cai, Z. (2004). Coh-Matrix: Analysis of Text on Cohesion and Language. *Behaviour Research Methods, Instruments, & Computers*, *36*(2), 193-202. https://doi.org/10.3758/bf03195564

Grami, G. M. A. (2010). *The Effects of Integrating Peer Feedback into University-Level ESL Writing Curriculum: A Comparative Study in a Saudi Context GMA Henderson, L. (1981)* (Doctoral dissertation). https://theses.ncl.ac.uk/jspui/handle/10443/933

Guo, X. (2019). *A Study of the Use of Lexical Cohesion in Chinese Postgraduate Writing at a UK University* (Doctoral dissertation, Durham University). https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=A+Corpus-Based+Study+of+Grammatical+Cohesion+Errors+in+Chinese+Postgraduates%27+Academic+Writing+in+English.

Haider, S., Mahmood, M. A., & Asghar, A. (2021). Cohesion and Coherence in Pakistani Expository Argumentative Essays: A Corpus-Based Study. *Sir Syed Journal of Education & Social Research*, *41*(1), 505-514. https://doi.org/10.36902/sjesr-vol4-iss1-2021(505-514)

Halliday, M., & Hasan, R. (1976). *Cohesion in English.* London: Longman.

Halliday, M., & Hasan, R. (1976). Introduction. *In Cohesion in English* (p. 8). London: Longman.

Halliday, M., & Hasan, R. (2014). *Cohesion in English*. Routledge.

Hameed, H. T. (2008). Cohesion in Texts: A Discourse Analysis of News Article in a Magazine. *Al-Faith Journal*, *4*(37), 81-114. https://www.iasj.net/iasj/download/2cb2c50eb7e95a87

Hinkel, E., & Fotos, S. (2001). *New perspectives on Grammar Teaching in Second Language Classrooms.* Routledge.

Hinkel, E. (2003). Simplicity Without Elegance: Features of Sentences in L1 and L2 Academic Texts. *TESOL Quarterly*, *37*(2), 275-301. https://doi.org/10.2307/3588505

Hubbard, H. (1989). Cohesion Errors in the Academic Writing of Second-Language Users of English. *English Usage in Southern Africa*, *20*(2), 1-19. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=cohesion+errors+in+academic+writing&btnG

Hyland, K. (2003). *Second Language Writing*. Cambridge University Press.

Hyland, K. (2005). *Metadiscourse: Exploring Interaction in Writing*. Continuum.

Hyland, K. (2009). *Academic Discourse: English in a Global Context*. Continuum.

Hyland, K., & Tse, P. (2007). Is There An "Academic Vocabulary"? *TESOL Quarterly*, *41*(2), 235-253. https://doi.org/10.1002/j.1545-7249.2007.tb00058.x

Irvin, L. L. (2010). What is Academic Writing? *Writing Spaces: Readings on Writings, 1*, 3-17. https://wac.colostate.edu/books/writingspaces1/irvin--what-is-academic-writing.pdf

Jamalzadeh, M., & Biria, R. (2017). A Corpus-Based Study of Cohesive Conjunctions in Medical Research Articles Written by Iranian and Non-Iranian Authors. *Journal of Teaching English for Specific and Academic Purposes*, 669-686. https://www.researchgate.net/publication/319472218_A_Corpus-Based_Study_of_Cohesive_Conjunctions_in_Medical_Research_Articles_Written_by_Iranian_and_Non-Iranian_Authors

Javed, M., Juan, W. X., & Nazli, S. (2013). A Study of Students' Assessment in Writing Skills of the English Language. *Online Submission*, *6*(2), 129-144. https://dergipark.org.tr/en/pub/eiji/issue/5137/70005

Kaplan, R. B. (2010). Research in Corpus Linguistics. In *The Oxford Handbook of Applied Linguistics* (2nd ed.). Oxford University Press.

Kennedy, G. (2014). *An introduction to corpus linguistics* (1st ed.). Routledge.

Khan, M. I., Majoka, m. I., & Fazal, s. (2016). Post/Graduate Academic Writing Problems: A Pakistan Case. In *Research Literacies and Writing Pedagogies for Masters and Doctoral Writers* (pp. 389-406). Brill. https://www.researchgate.net/publication/306313648_PostGraduate_Academic_Writing _Problems_A_Pakistan_Case

Kilickaya, F. (2009). World Englishes, English as an International Language and Applied Linguistics. *English Language Teaching*, *2*(3). https://doi.org/10.5539/elt.v2n3p35

Kirkpatrick, A. (2014). World Englishes. *In The Routledge Handbook of World Englishes* (p. 33 45). Routledge.

Lanjwani Jat, A. B., Jarah, A., Chana, S. A., & Mirani, J. I. (2020). An Investigation of Students' Organizational Problems of Cohesion and Coherence in English Essay Writing at Higher Secondary Levels of Sindh, Pakistan. *International Journal of Social Sciences, Humanities and Education, 3*(4), 244-252. https://core.ac.uk/download/pdf/327113083.pdf

Latif, F., Razaq, R., Nijabat, A., & Sohail, M. (2023). Academic Writing Challenges: Perspectives of Masters and Doctoral Students. *Pakistan Journal of Society, Education and Language (PJSEL)*, *9*(2), 205-212. https://pjsel.jehanf.com/index.php/journal/article/view/1154

Mahmood, K. (2020). Academic Writing Challenges of EFL Learners and Teachers' Proficiency in Pakistani Higher Education k. *Journal of Research in Social Sciences*, *8*(2), 2305-

6533. https://www.proquest.com/openview/c85211cdb5a2e9c9d2dfa77b95393172/1?pq-origsite=gscholar&cbl=2030756

Maulida, Z. N., Surtiana, & Nugraha, I. (2020). An Analysis of Grammatical Cohesion in Students' Writing (A Case Study in the Eleventh Year Students of SMAN 1 Garut). *EEAL Journal (English Education and Applied Linguistics Journal)*, *3*(2), 146-154. https://doi.org/10.31980/eealjournal.v3i2.1843

McCarthy, M. (1991). *Discourse Analysis for Language Teachers*. Cambridge: Cambridge University Press.

Moses, R. N., & Mohamad, M. (2019). Challenges Faced by Students and Teachers on Writing Skills in ESL Contexts: A Literature Review. *Creative Education, 10*(13), 3385-3391. https://doi.org/10.4236/ce.2019.1013260

Murray, R. (2009). *Writing for Academic Journals.* New York: Open University Press.

Murshidi, G. A. (2014). UAE University Male Students' Interests Impact on Reading and Writing Performance and Improvement. *English Language Teaching, 7*(9), 57-63. https://doi.org/10.5539/elt.v7n9p57

Nasser, A. N. (2017). A Study of Errors in the Use of Grammatical Cohesive Devices in Argumentative Texts Written by Yemeni EFL learners. *International Journal of Applied Research*, *3*(10), 172-176. https://www.researchgate.net/profile/Aref-Nasser/publication/327967785_A_study_of_errors_in_the_use_of_grammatical_cohesive_devices_in_argumentative_texts_written_by_Yemeni_EFL_learners/links/5bc259e2299bf1004c5ecc4d/A-study-of-errors-in-the-use-of-grammatical-cohesive-devices-in-argumentative-texts-written-by-Yemeni-EFL-learners.pdf

Nunan, D. (2010). *Practical English Language Teaching*. London: McGraw-Hill, 2003.

Nur Faradhibah, R., & Aliyah Nur, N. (2017). Analyzing Students' Difficulties in Maintaining their Coherence and Cohesion in Writing Process. *ETERNAL (English, Teaching, Learning and Research Journal), 3*(2), 179-189. https://doi.org/10.24252/eternal.v32.2017.a7

Odlin, T. (1989). *Language transfer: Cross-Linguistic Influence in Language Learning*. Cambridge University Press.

Ohse, T. (2017). *Teaching English as a Foreign Language in India.*

O'Keeffe, A., & McCarthy, M. (2010). *The Routledge Handbook of Corpus Linguistics* (1st ed.). Routledge.

Oshima, A., & Hogue, A. (2007). *Paragraph Format.* In Introduction to Academic Writing (3rd ed., p. 15). Longman Publishing Group.

Othman, A. K. (2019). Investigation of Grammatical Cohesive Devices Errors Made by Saudi EFL Students in Written Paragraphs: A Case Study of the University of Tabuk, Saudi Arabia. *European Scientific Journal ESJ*, *15*(2). https://doi.org/10.19044/esj.2019.v15n2p14

Palanisamy, S. A., & Abdul Aziz, A. (2021). Systematic review: Challenges in Teaching Writing Skills for Upper Secondary in ESL Classrooms and Suggestions to Overcome them. *Malaysian Journal of Social Sciences and Humanities (MJSSH), 6*(4), 262-275. https://doi.org/10.47405/mjssh.v6i4.749

Peter, J., & Singaravelu, G. (2020). Problems in Writing in English among High School Learners. *Aegaeum Journal*, *8*(9), 1502-1515. https://www.researchgate.net/profile/Govindarajan-Singaravelu/publication/351048985_Problems_in_Writing_in_English_among_High_Sc

hool_Learners/links/60811e828ea909241e16e201/Problems-in-Writing-in-English-among-High-School-Learners.pdf

Prasetyaningrum, A., Asrobi, M., Surayya, S. A., & Fikni, Z. (2022). Grammatical Cohesion in Students' Undergraduate Thesis. *Premise: Journal of English Education*, *11*(2), 297. https://doi.org/10.24127/pj.v11i2.4744

Qasim, H. M., Batool, A., & Nawaz, M. S. (2020). A Corpus-Based Study of Conjunctive Cohesion in Pakistani Research Articles. *International Journal of Linguistics and Culture, 1*(2), 111-132. http://ijlc.wum.edu.pk/index.php/ojs/article/view/19

Rashid, M. H., Ye, T., Hui, W., Li, W., & Shunting, W. (2021). Analyse and Challenges of Teaching Writing among the English Teachers. *Linguistics and Culture Review*, *6*, 199-209. https://doi.org/10.21744/lingcure.v6ns2.2004

Rofiq'ah, A. M. (2019). *Grammatical Cohesion Analysis of Students' Essay Writing: A Study of Fourth Semester English Language Education Department Students of Walisongo State Islamic University of in the Academic Year of 2017/2018* (Doctoral dissertation, UIN Walisongo Semarang). http://eprints.walisongo.ac.id/id/eprint/9831/1/THESIS.pdf

Rutherford, W. E., & Smith, M. S. (1985). Consciousness-Raising and Universal Grammar. *Applied Linguistics*, *6*(3), 274-282. https://doi.org/10.1093/applin/6.3.274

Saadat, M., & Zahed Alavi, S. (2018). The Effect of Type of Naragraph on native and Non-native English Speakers' Use of Grammatical Cohesive Devices in Writing and Raters' Evaluation. *3L The Southeast Asian Journal of English Language Studies*, *24*(1), 97-111. https://doi.org/10.17576/3l-2018-2401-08

Samadian, S., & Mohseny, A. (2019). Analysis of Cohesion and Coherence in Writing Performance of Iranian Intermediate EFL Learners. *Issues in Language Teaching*, *8*(2), 213-242. https://ilt.atu.ac.ir/article_11033_524ea50f45af824704bb2db449b36bc3.pdf

Schmitt, N. (2010). *Researching Vocabulary: A Vocabulary Research Manual*. Springer.

Selinker, L. (1972). Interlanguage. *IRAL - International Review of Applied Linguistics in Language Teaching*, *10*(1-4), 209-232. https://doi.org/10.1515/iral.1972.10.1-4.209

Sesriyani, L. (2017). *The Students' Error in Using Cohesive Devices in Essay Writing (The Descriptive Exploratory Study at the Second Semester English Department Students of Cultural Sciences Faculty of Sebelas Maret University in the Academic Year 2014/2015)* (Doctoral dissertation, UNS (Sebelas Maret University)). https://digilib.uns.ac.id/dokumen/detail/49535

Shah, I., Qasim, H. M., & Sibtain, M. (2021). Locus of Conjunctions in Academic Writing: A Corpus-Driven Approach to Developing Writing Among EFL Learners. *Pakistan Languages and Humanities Review*, *5*(2), 432-443. https://doi.org/10.47205/plhr.2021(5-ii)1.35

Sheikh, A. M. (2020). English Language Writing Problems Challenged by the ESL Learners and Instructors in Pakistan. *Multidisciplinary Journal of Instruction (MDJI), 2*(2), 29-40. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Sheikh%2C+A.+M.+%282020%29.+English+Language+Writing+Problems+Challenged+by+the+ESL+Learners+and+Instructors+in+Pakistan.+Multidisciplinary+Journal+of+Instruction+%28MDJI%29%2C+2%282%29%2C+29-40.+&btnG

Shkak, H., & Hasan, H. (2021). Students' Problems with Cohesion and Coherence in EFL Essay Writing at Soran University. http://dx.doi.org/10.13140/RG.2.2.25497.34408

Siddiqui, K. A. (2020). Analyzing Factors Influencing the Paragraph Organization in English Language Writing of Intermediate Students. *International Journal of Teaching and Learning in Higher Education, 32*(1), 99-106. https://files.eric.ed.gov/fulltext/EJ1259517.pdf

Subrayan Michael, A., Muthusamy, C., CSuppiah, P., Joseph, C., & Che Razali, S. M. (2013). Cohesion in News Articles: A Discourse Analysis Approach. *International Journal of Applied Linguistics & English Literature, 2*(3), 129-133. https://doi.org/10.7575/aiac.ijalel.v.2n.3p.129

Swales, J. M., & Feak, C. B. (2004). *Academic Writing for Graduate Students: Essential Tasks and Skills*. University of Michigan Press ELT.

Swales, J. M., & Feak, C. B. (2012). *Academic Writing for Graduate Students: Essential Tasks and Skills* (3rd ed., p. 3). University of Michigan Press ELT.

Tracy, K. (2008). Discourse Analysis in Communication. In *The Handbook of Discourse Analysis* (pp. 725-749).

UKEssays. (2018, November). Halliday and Hasans Cohesion in English English Language Essay. (2015, January, 1) UKEssay.com. https://www.ukessays.com/essays/english-language/halliday-and-hasans-cohesion-in-english-english-language-essay.php

Wallwork, A. (2016). *English for Writing Research Papers*. Springer.

Whitaker, A. (2009). *Academic Writing Guide. A Step-by-Step Guide to Writing Academic Papers* (pp. 2-4). Seattle: City University of Seattle.

Wilfitri, E., & Fatimah, S. (2020). The Use of Cohesive Devices in Academic Writing Written by English Language and Literature Department Students. *Journal of English Language Teaching*, *9*(3), 502-509. https://ejournal.unp.ac.id/index.php/jelt/article/view/109340

Wilson, T. M. (1996). *Review of "Corpus linguistics".* Edinburgh University Press 1996.

Wing-bo TSO, A. (2019). Discourse Analysis for EFL Academic Writing: University Students' Problems with Cohesion and Coherence. *Proceedings of The 2nd International Conference on Future of Teaching and Education.* https://doi.org/10.33422/2nd.icfte.2019.12.863

Xu, Y., & Zhang, Y. (2023). The Analysis of Grammatical Cohesive Devices in the Abstract of Academic Discourse. *International Journal of Languages, Literature and Linguistics*, *9*(4), 472-477. https://doi.org/10.18178/ijlll.2023.9.6.454

Yasmin, S., Khan, H. I., & Mahmood, A. (2023). A Corpus-Based Study of Conjunctive Cohesion in Pakistani English Newspapers. *Journal of Policy Research*, *9*(1). https://zenodo.org/records/7951631

Yuhaimi, D. L. (2019). *An Analysis of Lexical Cohesion in OP-ED Articles of the Jakarta Post* (Doctoral dissertation, UIN Ar-Raniry Banda Aceh). https://repository.ar-raniry.ac.id/id/eprint/7881/

Zahara, R., Yusuf, Y. Q., Samad, I. A., & Singh, C. K. (2023). Cohesive Devices in EFL Students' Essays and Problems Encountered during Writing. *Indonesian Research Journal in Education| IRJE|*, *7*(1), 61-76. https://online-journal.unja.ac.id/irje/article/view/23128

Zainiah, N. (2018). An Analysis on Grammatical Cohesion found in Undergraduate Thesis of English Education Department Students at State Institute for Islamic Studies of Metro. *IAIN Metro*. https://repository.metrouniv.ac.id/id/eprint/728/1/THESIS%20NIA%20ZAINIAH.pdf

Zhou, Y., Zhao, J., & Yan, W. (2009). A Corpus-Based Study of Cohesion in English Medical Texts and its Chinese Translation. *International Journal of Biomedical Science*, 5(3), 313-320. https://doi.org/10.59566/ijbs.2009.5313

ANNEXURE A

Department of Education

1: Teaching of Creative Writing in Urdu in an English Medium School: A Case Study by Shazia Batool (2021)

2: A Study of Occupational Stress and Coping Strategies for Teachers at the Secondary School Level by Navid Sadiq Malik (2021)

3: Physics Practicum Preparations and Assessment at Secondary School Level: Facts and Challenges by Muhammad Imtiaz (2021)

4: Investigation of Teacher –Teacher-related factors Contributing to Students' Performance in Mathematics at the Secondary School Level by Zahid Mahmood Rana (2021)

5: Relationship of Family Support and Job Performance of Teachers at the University Level by Humaira Tajamul (2021)

6: Effects of Teachers' Assessment Practices on Students' Engagement at Higher Education Level by Nosheen Saleem (2021)

7: Effects of Microteaching on Classroom Management Skills of Prospective Teachers by Faiza Khurshid (2021)

8: Content Analysis of 5th Class Textbook of the Social Studies concerning Provision for Civic Sense by AYESHA SARFRAZ (2021)

9: Personality as a Predictor of Psychological Well-Being of Teachers at the Secondary School Level by Saba Zulfiqar (2021)

10: Effectiveness of Using Knowledge Clip on Students' Engagement at Higher Secondary School Level by Nida Shahzad (2021)

Department of International Relations

1: The Dynamics of Global Flows in Arctic Ocean Region: Cooperation and Competition by Attal Khan (2021)

2: Rise of Hindu Nationalism: Implications for Secularism in India by Ehtisham Ul Hassan (2021)

3: Pakistan's Kashmir policy (2016-2019): A Critical Analysis by Amna Majeed (2021)

4: Changing Geopolitics of the Indian Ocean Region in the 21st Century: Security Implications for Pakistan by Shafiq ur Rehman Khattak (2021)

5: Pakistan's Afghanistan Policy: A Comparative Analysis of PPP (2008-2013) and PML-N (2013-2018) Governments by Madiha Zanib (2021)

6: Blue Diplomacy as Foreign Policy Instrument: Challenges and Prospects for Pakistan (2002-2020) by Aalia Naseer (2021)

7: Israel Factor in the US POLICY towards Iran: A Comparative Analysis of Obama and Trump Administrations by Sadia Atlas (2021)

8: US Withdrawal Policy from Afghanistan and its Implications for Pakistan by Shaista Tahir (2021)

9: Changing Geo Politics in the Indian Ocean Region in the 21st Century: Security Implications for Pakistan by Shafiq-ur-Rehman Khattak (2021)

10: National Security in the Age of Cyberspace: A Case Study of Pakistan by Muhammad Aslam (2021)

Department of Pakistan Studies

1: The State of Human Rights Violation in Indian Held Kashmir (2013-2018) by Nazish Latif (2021)

2: The Role of Civil Society Organizations and Political Participation of Youth in Pakistan by Mumtaz Jahan (2020)

3: Water Resources Preservation in Pakistan: (A Case Study of Mangla Dam) by Iram Abid (2021)

4: Archaeological Tourism in Khyber Pakhtunkhwa: A Case Study of District Mardan by Muhammad Khitab (2021)

5: Judiciary and Democracy in Pakistan: (2000-2008) by Aniqa Begum (2021)

6: Child Labor in Pakistan with Special Reference to Small Industries of Larkana by Muhammad Ilyas (2021)

7: Socio-Economic Relations between Pakistan and India: 1999-2008 by Riffat Abbas (2021)

8: The Role of Corps of Army Engineers in the National Development of Pakistan: A Case Study of North-West Border Areas and Swat by Mr Afficer Rehman Malik (2020)

9: The Role of Women in Pakistan Movement (A Case Study of Muslim Women from the Punjab) by Bushra Qureshi (2021)

10: Post 9/11 Relations Between Pakistan and Saudi Arabia: A Critical Study by Zaquar Ahmed (2021)