



Mohamed Kheider University of Biskra
Faculty of Letters and Languages
Department of the English Language and Literature

MASTER THESIS

Letters and Foreign Languages
English Language and Literature
Sciences of the language

Submitted and Defended by: Mr. **Abdelhalim ASSASSI**

On: June 10th, 2024

Genre Analysis of Abstract Writing in English for Academic Purposes: A Case Study of Published Articles in Architectural Heritage

A dissertation submitted in partial fulfillment of the requirements for a
Master Degree in English: Sciences of Language

Board of Examiners

Mr. Bilal ZENNOU	University of Biskra	President
Dr. Mostefa MEDDOUR	University of Biskra	Supervisor
Dr. Meriem ZEGHDOUD	University of Biskra	Examiner

Academic Year: 2023- 2024

In the Name of Allah,

the Most Gracious,

the Most Merciful All praise is due to Allah,

who has bestowed upon me blessings and

guidance to complete this work.

University of Mohamed Khider-Biskra
Faculty of Letters and Languages
Department of the English Language and Literature

Supervisor: Dr. Mustapha MEDDOUR

Candidate: Mr. Abdelhalim ASSASSI

Specialty: Applied linguistics

Date: 01/06/2024

DECLARATION OF INTEGRITY

I, "**Abdelhalim ASSASSI**", solemnly declare that the dissertation titled "**Genre Analysis of Abstract Writing in English for Academic Purposes: A Case Study of Published Articles in Architectural Heritage**" submitted to the Department of the English language and Literature at Biskra University is entirely my own work, free from plagiarism, and has not been submitted to any other educational institution. I have appropriately acknowledged and cited all sources used, and I have conducted myself with academic integrity throughout the process. I understand the severe consequences of academic misconduct and affirm the authenticity of my dissertation.

Signature

Abdelhalim ASSASSI



Dedication

I dedicate this work:

To my **dear father**, may he rest in peace, my first teacher in this life, whose memory will always remain in my mind and heart. I pray to Allah for His mercy and forgiveness;

To my **beloved mother**, to whom I can never fully repay my debt. May Allah protect her for us and grant us the ability to honor and please her;

To my **extended and immediate family**; I pray to Allah to protect them ~~all~~ and bring us together in constant remembrance of Him and everlasting love;

To **all my beloved ones** everywhere they exist.

Acknowledgements

First and foremost, I am fully grateful to **Allah** for granting me the strength, patience, and determination to accomplish this work.

I wish to extend my profound gratitude and heartfelt appreciation to my supervisor, **Dr. Mostefa MEDDOUR**. I am forever thankful for his dedication, guidance, support, and valuable advice.

I also extend my appreciation to the esteemed members of the jury who have given their consent to examine and evaluate my work, namely **Mr. Bilal ZENNOU and Dr. Meriem ZEGHDOUD**.

I am so thankful to my **Faculty**, with all its professors, administrators, and staff, for giving me the opportunity to pursue my education in very appealing conditions. I pray for its advancement and ascent to the top ranks among prestigious universities worldwide.

Lastly, my thanks to **everyone whose help** I may not have specifically acknowledged.

Abstract

Academic writing is mainly characterized by the conformity to discipline traditions that promote communication and information transmission. Being one of the academic genres, Research Article (RA) in English for Academic Purposes (EAP) is a scholarly product that conveys contribution to knowledge growth. Based on genre analysis, this study endeavors to compare twenty-four (24) abstracts of research articles, aiming to elucidate their distinctive features. These abstracts, selected from the International Journal of Architectural Heritage during the academic year 2023-2024, were firstly analyzed at the macro level targeting rhetorical moves and secondly at the micro level, that addresses linguistic features. The main findings revealed that more similarities than differences among the examined abstracts mainly the common adoption of the Can et al.'s (2016) framework model, surpassing the four moves (Introduction, purpose, method, and findings) suggested by Taylor & Francis database wherein the selected journal is indexed, which is due to the permissiveness of the database as long as the research papers hold a scientific value. The findings also demonstrated no consensus regarding the linguistic features. Comprehending abstract writing patterns in architectural heritage research articles enables scholars to improve their written communication and maximize chances of visibility and recognition among the academic community.

Keywords: Research Article, Abstract Writing, English for Academic Purposes, Genre Analysis, Moves, Linguistic Features, Architectural Heritage.

List of Abbreviations and Acronyms

- ESP:** English for Specific Purposes
- EAP:** English for Academic Purposes
- AAP:** Arabic for Academic Purposes
- SAT:** Speech Act Theory
- SFL:** Systemic Functional Linguistics
- RGT:** Rhetorical Genre Theory
- AT:** Activity Theory
- PhD:** Doctor of Philosophy
- RA:** Research Article
- RAAs:** Research Article Abstracts
- IMRD:** Introduction, Methods, Results, and Discussion
- CARS:** Creating a Research Space
- TP:** Thematic Progression
- DA:** Discourse Analysis
- M:** Move
- RGS:** Research Gap Strategies
- LRF:** Language-Related Fields
- CSA:** Central Statistical Agency
- EBSCO:** Elton B. Stephens Company
- Q:** Quartile
- SJR:** Scimago Journal Rank
- I:** Introduction

P: Purpose

M: Methods

R: Results

C: Conclusion

VT: Virtual Tour

3D: 3 Dimensions (Third Dimension)

2D: 2 Dimensions (Second Dimension)

BIM: Building Information Modeling

FE: Finite Element

ICT: Information and Communication Technologies

GIS: Geographical Information System

CEPI: Cálculo Escalonar de Perigo de Incêndio

FAHP: Fuzzy Analytic Hierarchy Process

DMTs: Data-mining techniques

FRGPs: Fibre-Reinforced GeoPolymers

FRPs: Fibre-Reinforced Polymers

Si-O-Si: Silicon-Oxygen-Silicon

e.g.: *exempli gratia*

SNCF: Société Nationale des Chemins de Fer Français (French national railway company)

QL: Quantitative Methods

PC: Participatory Methods

CNN: Convolutional Neural Networks

VPL: Visual Programming Language

List of Tables

Table 2.1. Genre-based theories.....	14
Table 2.2. Similarities and differences between academic and non-academic writing.....	18
Table 2.3. Some academic genres.....	19
Table 3.1. Compare/Contrast Qualitative and Quantitative Research Strategies.....	30
Table 3.2. Number of the articles published online per month in the International Journal of Architectural Heritage.....	32
Table 3.3. Classification rhetorical moves in article abstracts.....	34
Table 3.4. Guidelines for deciding on status of individual moves.....	35
Table 3.5. Framework for move coding adapted from Pho (2008).....	36
Table 3.6. Swales & Feak's (2009) model for micro analysis.....	37
Table 4.1. Micro level analysis of the abstract 1.....	40
Table 4.2. Micro level analysis of the abstract 2.....	41
Table 4.3. Micro level analysis of the abstract 3.....	42
Table 4.4. Micro level analysis of the abstract 4.....	43
Table 4.5. Micro level analysis of the abstract 5.....	44
Table 4.6. Micro level analysis of the abstract 6.....	45
Table 4.7. Micro level analysis of the abstract 7.....	46
Table 4.8. Micro level analysis of the abstract 8.....	47
Table 4.9. Micro level analysis of the abstract 9.....	48
Table 4.10. Micro level analysis of the abstract 10.....	49
Table 4.11. Micro level analysis of the abstract 11.....	50
Table 4.12. Micro level analysis of the abstract 12.....	51
Table 4.13. Micro level analysis of the abstract 13.....	52

Table 4.14. Micro level analysis of the abstract 14.....	53
Table 4.15. Micro level analysis of the abstract 15.....	54
Table 4.16. Micro level analysis of the abstract 16.....	55
Table 4.17. Micro level analysis of the abstract 17.....	56
Table 4.18. Micro level analysis of the abstract 18.....	57
Table 4.19. Micro level analysis of the abstract 19.....	58
Table 4.20. Micro level analysis of the abstract 20.....	59
Table 4.21. Micro level analysis of the abstract 21.....	60
Table 4.22. Micro level analysis of the abstract 22.....	61
Table 4.23. Micro level analysis of the abstract 23.....	62
Table 4.24. Micro level analysis of the abstract 24.....	63
Table 5.1. Frequency of moves found in the abstracts and their status.....	66
Table 5.2. Different results related to the number of words (textual space).....	68
Table 5.3. Sequences of moves found in the abstracts with percentages.....	72
Table 5.4. Total frequency of micro analysis variables of all analyzed abstracts.....	74
Table 5.5. Tenses frequency in each move by abstract.....	75
Table Appx.1.1. Comparative summary of the previous studies.....	96

List of Figures

Figure 3.1. Creating a Research Space (CARS) model.....	33
Figure 3.2. Bhatia's and Dos Santos' model of abstract moves.....	34
Figure 3.3. Hyland's framework (2000) of RA abstracts.....	34
Figure 5.1. Frequency and percentages of occurrence of moves in abstracts.....	67
Figure 5.2. Percentages of moves status referring to Hüttner (2010).....	67
Figure 5.3. Evolution of the average number and percentage of words through the five moves.....	69
Figure 5.4. Sequences of moves found in the abstracts using bar chart.....	72
Figure 5.5. Percentages of sequences of moves found in the abstracts using pie chart.....	72
Figure 5.6. Percentages of variables of the micro level analysis	74
Figure 5.7. Evolution of the tense frequency use depending the move.....	76
Figure Appx. 2.1. What it is an abstract in paper according to Taylor & Francis website (2024)?.....	99

Table of Contents

Dedication.....	I
Acknowledgments.....	II
Abstract.....	III
List of Abbreviations and Acronyms.....	IV
List of Tables.....	VI
List of Figures.....	VIII
Table of Contents.....	IX
General Introduction.....	1
Background of the Study.....	2
Research Problem and Rationale	3
Research Questions.....	6
Research Hypotheses.....	6
Aims of the Study.....	6
Significance of the Study.....	7
Limitation of the Study.....	7
Methodology.....	7
Structure of the Thesis.....	9
Chapter One: Literature Review.....	11
Introduction.....	12
<i>Genre Analysis and EAP: Key Terms</i>	12
- Genre Analysis.....	12
- English for Academic Purposes (EAP).....	15

- Academic Writing.....	17
- Relevance of genre analysis in the study of academic writing.....	20
<i>Review of Previous Studies on Abstract Writing based on genre analysis.....</i>	21
- Review of relevant literature on genre conventions in abstract writing.....	21
- Identification of gaps or areas where this study intends to contribute.....	27
Conclusion.....	27
Chapter Two: Methodology.....	28
Introduction.....	29
<i>Research Design.....</i>	29
- Explanation of the research design.....	29
- Justification for using genre analysis as the primary method.....	31
<i>Corpus and data / collection and process of analysis.....</i>	32
- Corpus and data collection.....	32
- Analytical framework and coding procedures.....	33
Conclusion.....	37
Chapter Three: Analysis of Results.....	38
Introduction.....	39
<i>Analysis of the abstracts.....</i>	39
Conclusion.....	64
Chapter Four: Discussion of Results.....	65
Introduction.....	66
<i>Macro level analysis.....</i>	66
<i>Micro level analysis.....</i>	74
Conclusion.....	78

General Conclusion..... 79

- A summary of the study..... 80
- Confirming or refuting hypotheses regarding the obtained results..... 81
- Implications of the study..... 82
- Limitation and contribution of the study..... 82
- Recommendations of the study..... 82

List of References..... 83

Appendices..... 95

- Appendix 1: Comparative summary of the previous studies..... 96
- Appendix 2: What is the abstract in a paper according to Taylor & Francis Database?. 99

Abstract in Arabic..... 100

General Introduction

Background of the Study

Scientific publications serve as formal written documents that present the findings, research methodologies, and final conclusions of scientific investigations and studies. They also play a vital role in the dissemination of novel perspectives within the scientific community. Many researchers, such as Liunbruno et al. (2012), Oommen (2021), and Stiell (2021), have provided explanations on how to write a scientific manuscript for publication. Such scientific publications, also known as academic papers, scholarly articles, or scholarly works, allow researchers to share groundbreaking discoveries and ideas for future research. Authored manuscripts intended to enhance academic discourse are typically published in academic journals, conference proceedings, or other scholarly publications. According to Booth et al. (2003), these works are crafted by experts, scholars, and professionals in a variety of fields in order to share new findings, offer original perspectives, or contribute to ongoing discussions in specialized fields of study. Various elements form the foundation of academic papers, including the title, abstract, introduction, methodology, literature review, results, discussion, conclusion, and references.

An academic paper's abstract provides readers with a concise synopsis of the study's objectives, methodology, key findings, and conclusions. This overview serves as a guide, making it easy for readers to quickly grasp the study's main points and decide whether or not they are relevant to their needs. Furthermore, abstracts are essential in scholarly databases, assisting scholars in identifying relevant works for further examination. They are an important part of scholarly communication since they summarize the main points of the article in a clear and succinct manner. The book "Abstracts and the Crafting of Abstracts" by Swales & Feak (2009) is an outstanding resource that delves into the intricacies of abstract production in academic contexts. This publication offers incisive guidance on crafting persuasive abstracts and appreciating their importance in academic discourse and exchange. As an important element of the academic paper, the abstract serves many purposes, such as facilitating specific searches and aiding in the swift assessment of the paper's relevance to particular research needs.

English for Specific Purposes, or ESP, is a subset of English language instruction that focuses on developing language competency and skills within a certain profession or setting. Customizing language education to meet the unique needs of students in a chosen field or career is the main advantage of ESP. According to Hutchinson & Waters (1987: 19), "*ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning.*" The acronym ESP may encompass a variety of concepts depending on the context. Scholars in the field offer diverse definitions to capture its nuanced nature.

Research Problem and Rational

Integrated into the larger ESP framework, English for Academic Purposes (EAP) addresses the unique language and communication needs that arise in academic environments, encompassing activities like reading academic materials, writing research papers, giving presentations, and taking part in class discussions (Swales & Feak, 2012). EAP programs are tailored to meet the needs of students preparing for research or academic study in disciplines or institutions where English is the primary language of instruction. The goal of these programs is to provide students with the academic literacy and language proficiency they need to succeed in their academic endeavors. As a result, EAP functions as a dedicated branch of ESP that caters to the audience's scholarly requirements.

According to Lamri (2016), English for Academic Purposes (EAP) focuses on key components known as "study skills." These abilities are essential for academic achievement and include writing scholarly papers, which entails organizing arguments, properly acknowledging sources, and following to academic traditions. Giving presentations is an essential element of EAP, as it helps students organize their thoughts, communicate effectively, and interact with their audience. These are some aspects, which work together to improve a student's capacity to successfully navigate the academic environment.

Writing an abstract for English for Academic Purposes (EAP) can present a number of problems and challenges, such as the need to succinctly summarize complex research, maintain language coherence and clarity, adhere to academic norms and styles, and effectively communicate the study's main points in a limited number of words. Additionally, learning the academic terminology and rhetorical devices frequently used in abstracts may present challenges for non-native English authors. Striking a balance between being concise and sufficiently engaging the reader can also be difficult. As a result, numerous studies such as Imsa-ard (2021) and Pho (2008) aim to address these issues by employing various methods, such as genre analysis, which focuses on analyzing the genres, or distinctive text types, that are frequently encountered in specific disciplines. This method helps students understand and produce the discourse patterns typical of their fields (Swales, 1990).

Genre analysis enables understanding the context of communication, audience adaptation, and improving rhetorical awareness in professional and academic settings. It explains how new genres emerge in response to societal, technological, and communication practice changes, and how they develop over time. These genres are often rooted in a particular culture and represent its norms, values, and expectations. Swales (1990) emphasized the significance of understanding genres in academic and research environments. His work demonstrates how genre analysis enhances communication effectiveness and promotes intellectual engagement within specific academic communities. By using genre analysis, individuals can enhance communication techniques, foster cultural sensitivity and critical thinking, increase academic and professional success, encourage creativity and originality, and communicate more effectively in a variety of contexts. Genre analysis can be applied in many contexts and settings, and this study will focus on the architectural heritage as one of the main subfields of architecture.

Many architects proposed definitions to capture the deep meaning of architecture. Charles-Édouard Jeanneret-Gris, more widely recognized by his pseudonym "Le Corbusier," was a multifaceted individual, serving as an architect, theorist, urban planner, space designer, painter, sculptor, and writer. He famously declared that architecture serves as the basic cornerstone for directing humanity to a better tomorrow (MCH, 2023). Carlos Scarpa, a prominent figure of the 20th century, was renowned as an intellectual, artist, architect, and designer. Carlos Scarpa characterized architecture as having a distinct language that is sometimes shrouded in mystery, contrasting it with other artistic genres. According to Scarpa, the core of a piece is its expression; when delivered correctly, its value increases dramatically (MCH, 2023).

In academic writing, starting with abstracts, architecture, like other disciplines, has an interdisciplinary nature and specificity. This includes conveying design concepts and principles, discussing architectural theories, and understanding technical terminology. A nuanced understanding of architectural heritage is also essential. This dissertation focuses on the latter, emphasizing the importance of architectural heritage in the context of academic discourse.

Article 1 of the Convention for the Protection of the Architectural Heritage of Europe (also known as the Granada Convention) (Council of Europe, 1985) defines architectural heritage as:

1 monuments: all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixtures and fittings;

2 groups of buildings: homogeneous groups of urban or rural buildings conspicuous for their historical, archaeological, artistic, scientific, social or technical interest which are sufficiently coherent to form topographically definable units;

3 sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogeneous to be topographically definable and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest’.

Research Questions

The present research study seeks to answer the following questions:

1. What are the commonly followed genre MODELS including their corresponding MOVES observed in abstract writing by researchers of architectural heritage in English for Academic Purposes (macro level)?
2. How do linguistic features, vary among the abstracts analyzed (micro level)?

Research Hypotheses

On the light of the research questions, the following are the hypotheses of this dissertation:

- 1- There are similarities and differences in abstract writing' structure by researchers of architectural heritage at the two levels:
 - the macro level: in GENRE PATTERNS/MOVES;
 - the micro level: in linguistic features.
- 2- When writing research article abstracts, the researchers follow the moves suggested by the database, where the selected journal is indexed.

Aims of the Study

The main aims of this study are:

1. Finding genre norms and conventions entails looking into the typical language characteristics, content, and structure of article abstracts in architectural heritage.
2. Examining the linguistic features usage, mainly lexico-grammar features such as the length of the abstracts, use of tense, presence of any citation, presence of 1st person pronouns, and acronyms that are employed in architectural heritage abstracts.
3. Determining similarities and differences in genre standards/norms and language usage in architectural heritage within abstract genres by contrasting and comparing article abstracts of architectural heritage from International Journal of Architectural Heritage.

Significance of the Study

In the field of architecture, abstracts genre analysis is significant for a number of reasons:

- 1- Understanding the underlying design principles and concepts used by researchers of architectural heritage is made easier by analyzing a number of abstracts.
- 2- Architectural heritage abstract genre analysis contributes to the comprehension of the historical and cultural setting in which these works were produced.
- 3- Architects and designers might get ideas for their own creative endeavors basing on pushing the limits of the architectural heritage conventions due to the use of genre analysis.

Limitations of the Study

Although genre analysis offers understanding of patterns and norms or conventions in a specific form of communication, it might not reliably predict how an audience will receive or perceive a text's success here. This research is not based on the study of all subfields of architecture and focuses only for moves and linguistic features. In addition to that, this research deals with some research article abstracts published in the International Journal of Architectural Heritage, which are indexed in international databases such as Web of Science, Scopus, Elsevier, and Springer, limited to the present academic year (2023/2024).

Research Methodology

Given the nature of this research title, a mixed research methodology, specifically a genre analysis, would be suitable. Genre analysis is a method that focuses on examining patterns and conventions within specific types of written or spoken communication. Here's an outline of the methodology of this study:

- 1- Selection of Corpus: Gather a corpus of abstracts from published articles written by researchers of architectural heritage. Ensure that the corpus is representative of the genre and diverse in terms of architectural heritage topics, publication sources, and author backgrounds.
- 2- Defining Analytical Framework: Framework based on moves in writing an abstract, and framework based on linguistic features, to develop a clear analytical framework for genre analysis. This framework should include key elements such as rhetorical standards and discourse structures commonly found in abstracts within one of the important subfields of architecture, which is the architectural heritage.
- 3- Coding Scheme: Create a coding scheme based on the defined analytical framework. This scheme should guide the systematic coding of linguistic features and structural components in the abstracts.
- 4- Data Coding and Analysis: Code the abstracts using the established coding scheme. Analyze the data to identify recurring patterns and linguistic features that characterize abstract writing in the context of EAP within architectural heritage.
- 5- Identification of Genre Conventions: Explore how authors typically introduce their research questions, describe methods, present findings, and draw conclusions in the abstracts. Identify any variations or commonalities in these conventions.
- 6- Qualitative Data Interpretation: Interpret the qualitative data, drawing connections between identified patterns and the broader context of academic writing in architecture.
- 7- Presentation of Results: Present the results in a clear and organized manner. Use excerpts from the abstracts to illustrate key findings, and consider illustrations such as tables or charts for a more comprehensive presentation.
- 8- Discussion and Implications: Discuss the results and relate them to the findings of the previous studies, based on the alignment or the opposition

- 9- Conclusion: Summarize the main findings of the genre analysis and reiterate the significance of understanding abstract writing conventions within the specific context of English for Academic Purposes in architecture.

By employing a genre analysis methodology, it can systematically investigate the conventions and patterns within abstract writing by researchers of architectural heritage, providing valuable insights into the genre-specific aspects of academic communication in this field.

Structure of the Thesis

This thesis is divided into the following chapters:

- Chapter One: This chapter deals with the literature review. First section concerns the genre analysis, the English for Academic Purposes, the Academic Writing, and the relevance of genre analysis in the study of academic writing. This section is based on an overview of the theoretical foundations of genre analysis and the relevance of genre analysis in the study of academic writing. Second section concerns the previous studies on abstract writing, focusing on the review of relevant literature on genre conventions in abstract writing, and the identification of gaps or areas where this study intends to contribute.

- Chapter Two: This chapter details the methodology. First section is the research design, which explains the qualitative research design and justifies the using of genre analysis as the primary method. Section two is the selection of the abstracts/data and the process of analysis, which details how the corpus/data of abstracts by researchers of architectural heritage will be selected, and determines the analytical framework through the explanation of how rhetorical moves, linguistic features, will be examined, and detail the coding procedures and thematic identification.

- Chapter Three: This chapter digs into a deep study of selected abstracts, looking at both macro and micro-level features. Using a rigorous coding technique, many details are observed. At the macro level, larger themes and overarching systems are investigated. Meanwhile, micro-level analysis focuses on specific language traits and finer nuances.

This dual method ensures a thorough comprehension of the abstractions. The findings provide useful insights into the underlying trends and traits found in the texts.

- Chapter Four: This chapter analyzes the findings, beginning with an interpretation of the various qualitative and quantitative data analyses, followed by a deeper exploration. It also discusses the linkages and parallels between these findings and previous work on genre analysis and abstract writing. This extensive research helps to situate the trends within the larger scholarly debate. The chapter emphasizes the significance and relevance of the study's findings in comparison to existing studies. These findings give innovative insights into the architectural heritage discipline, particularly in academic writing providing a new foundation for future studies.

Chapter One: Literature Review

Introduction

Genre analysis in the field of English for Academic Purposes provides an important lens through which researchers explore the specific linguistic and rhetorical characteristics of various academic genres. This analytical method investigates the norms, structures, and communication goals that distinguish different types of writing in academic discourse. Researchers use genre analysis to disentangle the complexities of academic writing, shedding light on how language is used to effectively convey meaning within disciplinary contexts. Previous studies have examined a wide range of genres, from research papers and essays to conference presentations and literature reviews, providing vital insights into the rhetorical strategies and language patterns used by writers.

Genre Analysis and EAP: Key Terms

- Genre Analysis

Definition of genre analysis

Several definitions of genre analysis have been given, and some will be mentioned below in chronological order. Beginning with Miller (1984), genres encapsulate common rhetorical practices arising from recurrent situations, and genre analysis involves examining these practices within their social and cultural contexts (the correlation between social factors and genres). According to Swales (1990, 2004), genre analysis entails the examination of textual genres within a specific discourse community, emphasizing its linguistic features, communicative goals, and standards. Bhatia (1993) defined genre analysis as the study of how communication within particular fields is achieved through the creation and understanding of texts via genre conventions. The goals of genre analysis include identifying recurring themes, structures, and roles within certain genres and investigating the social, cultural, and communicative settings that influence them. Genre analysis serves as an analytical framework for comprehending and interpreting texts. Furthermore, Bazerman (1994, 2004) suggested that genres are characterized by rhetorical actions based on recurring circumstances, and genre analysis scrutinizes the networks of genres that shape societal dynamics, exploring their origins and development for social objectives.

Theories of genre analysis

Genre analysis witnessed the emergence and development of certain theories. Chronologically, in 1969, Searle established what is called Speech Act Theory (SAT), which introduces the concept of speech acts and categorizes different types of illocutionary acts, laying the groundwork for understanding how particular speech acts are associated with genres. After that, in 1973, Halliday introduced another theory called Systemic Functional Linguistics (SFL), based on the understanding of language functions within the systemic functional linguistics framework. This viewpoint serves as the basis for grasping genres as linguistic instruments embedded in social environments.

Then, in 1984, Rhetorical Genre Theory (RGT) emerged and was developed by Miller, interpreting genre as a mode of social involvement. This theory underscores the impact of genre on shaping and executing social roles and interactions. In 2000, Engeström explored the core ideas of Activity Theory (AT) and its application in analyzing and restructuring work methods. This exploration involves investigating the role of genres as tools for mediation within activity systems. In 2010, Genre Systems Theory emerged and was developed by Bawarshi & Reiff through the investigation of how genres operate within complex social structures. They supported their arguments with diverse examples of genre analysis from this perspective.

At the intersection of literary theory and linguistics, genre analysis examines how various types of writing are utilized, interpreted, and structured in specific contexts. Depending on social contexts and the nature or characteristics of genres, genre analysis theories offer a framework for understanding how texts are organized, interpreted, and employed within particular social and communicative contexts.

Amairi (2012) summarized the genre-based theories in the following table:

Table 2.1. Genre-based theories
(Amairi, 2012)

Genre Schools	Principles	Authors
ESP	<ul style="list-style-type: none"> -It is difficult to situate ESP with a particular linguistic or pedagogical tradition -Genres are defined by their formal properties as well as by their communicative purposes within social contexts. -The analysis is based on academic genres (research articles) -The analysis focuses on the vocabulary as well as the moves organization within genres so that university students will be able to control the organizational and stylistic characteristics of any given text. 	<ul style="list-style-type: none"> -Swales 1990) -Bhatia (1993) -Dos Santos(1996)
New Rhetoric	<ul style="list-style-type: none"> -Genres are defined in terms of the social actions and purposes used to accomplish -Genres are dynamic - Teaching genres is based on the discussion of the rhetorical situation and not the description of the lexico-grammatical features. -Theorizing the ways in which genres are use for, schooling might assist students in acquiring , critiquing and using genres for their own purposes 	<ul style="list-style-type: none"> -Miller (1984) - Jamieson (1978)
Sydney School	<ul style="list-style-type: none"> -It based on Systemic-Functional Linguistics -Genres are defined in terms of their lexico-grammatical features and the functions / meaning of language in context. - Australian genre theorists have focused mainly on primarily and secondary genres with little attention to university and professional writing 	<ul style="list-style-type: none"> -Halliday (1978) - Jim Martin (1987)

This table explains the differences of genre-based theories in relation to genre schools and according to different authors, where different principles were detailed.

- **English for Academic Purposes (EAP)**

Definition of English for Academic Purposes (EAP)

According to Cheung & Irene (1988), It won't matter how precisely define English for Academic Purposes (EAP) if there is not a support of students in achieving their objectives, and put another way, when teaching EAP, it must take into account the means of achieving the objective in addition to the subject matter that must be taught. Whereas, Hyland (2006) said:

“EAP is usually defined as teaching English with the aim of assisting learners’ study or research in that language (e.g. Flowerdew & Peacock, 2001; Jordan, 1997). In this sense it is a broad term covering all areas of academic communicative practice such as:

- *Pre-tertiary, undergraduate and postgraduate teaching (from the design of materials to lectures and classroom tasks).*
- *Classroom interactions (from teacher feedback to tutorials and seminar discussions).*
- *Research genres (from journal articles to conference papers and grant proposals).*
- *Student writing (from essays to exam papers and graduate theses).*
- *Administrative practice (from course documents to doctoral oral defences).”*

In other hand, English for Academic Purposes (EAP) is one of the main subfields of English for Specific Purposes, which deals with needs linked to academic studies (Negro Alousque, 2016).

Therefore according to O’Brien (2024), English for Academic Purposes (EAP) is more than just writing and speaking conventions. It's a talent. It teaches us how to appraise, criticize, analyze, and confirm information and aids in the development of our critical thinking skills. EAP teaches us to respect and value the thoughts and contributions of others. EAP is an effective tool that may help us achieve our objectives in both our personal and professional life in a responsible and successful manner. It promotes improved cross-cultural communication and an unrestricted flow of ideas, two things that are vital to our globally linked society.

Theories of EAP

Starting by the Sociocultural Theory of Learning, EAP provides additional avenues for incorporating cultural practices and social activities as the foundation of critical thinking, emphasizing the role of critical language praxis and pedagogy in students' overall development, and the "*inseparability of the individual from the social.*" (Moll, 1990, p. 15). The sociocultural constructivist theory of learning, which acknowledges socially constructed knowledge and is sensitive to the "*complexities of institutions, teaching, and learning in local contexts*" adds to the theoretical framework of EAP (Benesch, 2001, p. 4).

Another theory is called Genre theory, which is based on the overview that it is not possible for EAP instructors to hope to impart on students the specific skills they will need for all of their upcoming content courses (Meyer, 1996). According to this theory, teachers can help students by providing them with strategies that will make it easier for them to enter any community and, consequently, understand what is expected of them. Some genre theorists contend that in order to provide students with strategies, theme-based pedagogy may be falling short in a number of ways. These theorists suggest that leading students through the processes of acquiring a genre in an authentic social community, such as exists in content courses, is essential.

Discourse Community Theory is an important theory, which, according to the sociolinguist John Swales' this theory was put forward in the 1980s, where academic writing takes place within certain communities that have similar objectives, moral standards, and modes of communication, and it is necessary to be familiar with the norms and expectations of different discourse communities in order to comprehend and participate in academic discourse successfully (Swales, 1990). This theory highlights how crucial it is to comprehend the sociocultural background of scholarly discourse. It implies that certain discourse communities' norms, beliefs, and practices influence academic writing, and that in order for students to interact with these communities productively, they must assimilate into them (Gee, 1999).

- **Academic writing**

Definition of academic writing

According to Oshima & Hogue (2007), writing that is used in college and high school is known as academic writing. Writing for academic purposes differs from creative writing, which is what you do when you create tales. It differs from personal writing, which is the type of writing you do for your friends and family via emails or letters. Since both creative and personal writing are informal, you are free to include slang, acronyms, and run-on sentences. But since academic writing is official, you shouldn't utilize contractions or slang. You should also be careful to construct whole phrases and arrange them in a certain order.

Sumayya et al. (2019) summarized the answer to the question of what is academic writing in the following points:

“ - Generally, refers to all writing tasks assigned to students for the purpose of study at the college level i.e., writing tasks assigned to students at college/university is referred to as academic writing.

- Academic writing is formal and follows a well-defined pattern.

- Academic writing is a serious and formal way of writing. It is different from creative writing and various other informal and fictional writing. An academic writer expected to be objective.

- Students, teachers and researchers who engage in academic writing at college or university are called 'scholars' or 'academicians' and their writing is described as 'scholarly writing'.”

According to the Website of Oxford Brookes University (2024), Academic writing is a formal type of writing. It is well-structured and precise. Unlike other types of writing, such as journalism, it must be objective, which means reducing emotion and dramatic emphasis in order to focus on the data.

Similarities and differences between academic and non-academic writing

In the following table some similarities and differences between academic and non-academic writing:

Table 2.2. Similarities and differences between academic and non-academic writing
(Lademora, 2021)

<i>Academic Text (Differences)</i>	<i>Academic and Non- academic Texts Similarities</i>	<i>Non- academic Text (Differences)</i>
<ul style="list-style-type: none"> ↓ Academic texts tend to be formal and direct. ↓ It is mainly use for research purposes and job reports. ↓ Certain rules are needed to be followed. ↓ Semi- formal words are used to convince the readers. ↓ Needs to be objective and impersonal. ↓ Facts are valued rather than personal opinions. ↓ Relies more on referencing facts to present evidences and support claims. ↓ Citations are valued and list of references are provided. ↓ Longer time span is given for proofreading. ↓ Research articles, Thesis projects, Abstracts, Essays and Literature reviews are some examples of academic writing. 	<ul style="list-style-type: none"> ↓ They both serve as vessels to connect the writers to their readers. ↓ They can be used as sources for certain contexts depending on the style and genre used by the article. ↓ They are both presented through writing, may it be on the internet or on the paper. ↓ Non- academic and academic texts have purpose. ↓ Both texts brainstorm Ideas such as quotes for non- academic text and facts for academic texts from different sources to provide more impact to the readers. ↓ They are considered as a form or a type of writing. ↓ Both of them are required to be original. 	<ul style="list-style-type: none"> ↓ Non- academic text can be written in any way the author wants. ↓ Use in casual writings and can be written by anyone. ↓ No certain rules to be followed, freestyle writings are permitted ↓ Slangs and informal words are used to entertain the readers. ↓ Subjective in nature. ↓ It can be heavily personal opinion and emotional based. ↓ Authors of the quotes and sayings may not be mentioned ↓ List of references are not provided ↓ Can be written and published quickly. ↓ It is written for the masses. ↓ Text messages, personal journals, emails and autobiography are some examples of non- academic writing

Despite some of similarities between academic and non-academic writing, the differences were clear and made sense to the level of writing.

Some academic genres

Some academic genres are show in the following table:

Table 2.3. Some academic genres
(Hyland, 2006)

<i>Written genres</i>		<i>Spoken genres</i>	
Research articles	Book reviews	Lectures	Student presentations
Conference abstracts	Ph.D. dissertations	Seminars	Office hour sessions
Grant proposals	Textbooks	Tutorial sessions	Practicum feedback
Undergraduate essays	Reprint requests	Peer feedback	Dissertation defences
Submission letters	Editor response letters	Colloquia	Admission interviews

Regarding this table, as a written genre, the research article is the main academic genre, which provides a systematic elements and scientific findings or results.

Research Article Abstract as an Important Piece of the Academic Writing

Reading abstract helps the reader grasp the complete text and recall the major topics and discoveries, and helps supervisors to examine technical work without becoming bogged down in specifics (Frey & Kaplan, 2010). According to the website of Sweetband center for writing (2013), an abstract is a brief description of finished research. This is a brief description of your work. Abstracts should be simple and self-contained, providing a brief and clear explanation of the work. Different fields require different methods to abstracts. It's recommended to examine abstracts from your own subject before writing your own.

Then, abstract of a research paper is a brief explanation of the main study's points such as goal, methods, findings, and conclusions. It acts as a concise summary of the article, letting readers to rapidly comprehend the main ideas without having to read the entire content. An abstract is usually 150-500 words long and has a systematic framework.

- **Relevance of genre analysis in the study of academic writing**

Wang et al. (2023) clearly elucidated this point as follows:

Genre analysis is often used in English for Academic Purposes (EAP) courses. A thorough understanding of academic genres is essential for developing writing skills. Xu's work examines computer science research articles to discover linguistic and rhetorical tendencies (2022). Novice academics struggle with answering questions and criticisms. According to the study, effective communication requires discussants to establish rapport with the presenter, contextualize inquiries, and justify important assertions. This helps new academics grasp conference communication aims and strategies. Genre analysis has been used to examine technical report genres in engineering studies, as well as research papers (Parkinson, 2017; Mohd et al., 2019). Although the literature on this issue is limited, previous research has concentrated on assessing the organizational structure and rhetorical methods used in experimental study reports. These investigations have provided useful insights into the common sections and structure of technical reports in engineering, such as the introduction, methodology, findings, and comments.

In general, according to Wang et al. (2023), genre analysis is important for understanding the structure and rhetorical patterns of various academic genres. Scholars can get insight into how writing is impacted by academic fields' expectations and intentions by analyzing different genres through understanding genre conventions for example.

In addition to this paper, another interesting paper of Flowerdew (2022), which focuses on using corpora for academic writing instruction within a Swalesian genre-based paradigm. Pedagogic efforts include several academic genres and subjects. Therefore, Flowerdew (2022), confirmed that research findings by Kanoksilapatham (2005, 2007), Durrant and Mathews-Aydnli (2011), and Parkinson (2017) provided valuable insights into the lexico-grammatical patterns of specific genres and disciplines, where these findings can be used to prepare hands-on concordancing tasks and works.

Previous Studies of genre analysis of Abstracts and identification of the gap

- Previous Studies of genre analysis of Abstracts

Rhetorical moves in the genre analysis of research paper abstracts refer to the strategic activities that writers undertake to concisely portray their study's objectives, methodology, findings, and conclusions. Linguistic features include choices such as specific terminology, tense use, and sentence structure, adapted to the intended audience. Understanding these traits helps readers quickly assess the research's relevance and importance. Dewi and Harmawan (2022) summarized previous studies on this subject, addressing the main issue of rhetorical moves. This research is based on the assumption that Hyland's (2000), Bhatia's (1993), and Swales' (1990) move models are most commonly used in research article abstracts. The occurrence of moves is categorized as obligatory moves and supplementary moves, alongside the examination of linguistic features.

This section cite some other studies which are not cited in the paper of Dewi & Harmawan (2022), from different fields, starting from the 2002 to 2024 (summarized in Appendix 1).

In the fields of Phonetics and Psychology, the research article entitled "A Genre-Based Investigation of Abstract Writing in English and Spanish" examines a corpus of 160 RA abstracts, with 80 abstracts written in English and 80 in Spanish. Martin (2002) emphasized the study of the prevalence and layout of epistemic modality within each portion of the abstracts in both languages. The analysis was conducted in two steps. First, the rhetorical structure of the abstracts was analyzed based on frameworks developed by Swales (1981, 1990), Dudley-Evans (1986), Salager-Meyer (1990), and Santos (1996). Second, the frequency and distribution of modality expressions within each identified structural unit were examined in both sets of abstracts. Devices used in the English texts were compared to those in Spanish. One of the main findings of this study is that while the distribution of modality follows similar patterns in both languages, there is a noteworthy difference in the frequency of epistemic modality use, which is much greater in English texts due to socio-cultural variables.

In the field of Linguistics, the research article entitled “On RA abstracts: from rhetorical structure to thematic organization” by Lorés (2004) aimed to analyze research article abstracts linguistically from the perspectives of rhetorical structure and theme patterns and development. The study used a corpus of 36 abstracts drawn from four renowned linguistics journals (nine abstracts from recent issues of each journal). The analysis of rhetorical structures follows the IMRD model and the CARS model. The thematic analysis is divided into thematic progression (TP) patterns, introduced by Danes (1974), and the method of thematic development suggested by Fries (1983, 1995a, 1995b). The study reveals different patterns of theme distribution and identifies a minor rhetorical structure that combines features from both the IMRD and CARS models, referred to as the "combinatory type" in this context. Based on thematic progression (TP) patterns and the method of thematic development, the findings support the merger of two basic pattern types (simple linear and constant), indicating a non-random relationship. Each abstract segment exhibits distinct topic combinations, both within and across move boundaries, demonstrating planned structuring.

In the field of Protozoology, the research article entitled “A Genre Analysis of Scientific Abstracts” by Cross and Oppenheim (2006) examined a corpus of 12 abstracts to observe any differences in style, content, or format over a 10-year period, from 1994 to 2004. The study aimed to define the typology and functions of abstracts, understand their purpose, scope, and application, and determine whether the abstracts followed the recommendations stated in abstracting guidelines. The content of the abstracts was analyzed using a move analysis approach, referring to a five-move pattern (Endres-Niggemeyer, 1998; Santos, 1996). The thematic analysis was based on the framework presented by Halliday and Martin (1993), and the grammatical subject functions in the abstracts were analyzed according to four domains identified by Kaplan et al. (1994). One of the main findings of this study is that the thematic analysis reveals that scientific abstract authors thematize their topic by referring to the discourse domain or the 'real' world. Additionally, not all abstracts followed the guidelines, but there was a broad agreement on semantic organizing and thematic structure.

In the field of Financial Economics, the research article entitled “A Genre-Based Analysis of English Research Article Abstracts and the Linguistic Feature of Personal Pronouns for Financial Economics” by Ning (2008) focuses on a corpus of 50 English research article abstracts. This study aimed to address a gap in knowledge and contribute to global research on genre analysis publications. The research is based on Bhatia's (1993) four-move model and Nwogu's (1997) approaches for identifying schematic structures and moves. Each sentence in an abstract was classified as a move based on its salient function. Referring to Bhatia's model (1993), only 10 abstracts adhere to the prescribed structure, while 40 exhibit deviations such as reordering, missing moves, or unconventional insertions. Among the 50 analyzed abstracts, 8 lack one move, 4 lack two moves, 18 show significant reordering, and 10 include unconventional moves. The examination of personal pronouns revealed that first-person plural pronouns are commonly used, whereas no second- or third-person pronouns were found in the abstracts. Further investigation reveals that first-person plural pronouns can serve several purposes in abstracts.

In the fields of Applied Linguistics and Language Learning & Technology, the dissertation entitled “Move Analysis of Journal Research Articles Abstracts: The Case of Applied Linguistics and Language Learning & Technology” by Amairi (2012) analyzes a corpus of 40 research article abstracts published in journals from both fields. The study aimed to analyze rhetorical structures and their appearances in abstracts, and to examine whether these abstracts follow Santos' model (1996). This research is based on Santos' model and connects each sentence to Swales' model. In addition, the study employs WordSmith Tools, a set of programs that enables the researcher to analyze word behavior in texts. According to Santos' model, abstracts have five moves, each released via a series of sub-moves. The model consists of five steps, with each move comprising multiple sub-moves. The results show that researchers in Applied Linguistics and Language Learning & Technology journals write abstracts similarly. Consequently, international abstracts are more informative and systematic since they follow the five steps suggested by Santos. The findings highlight the necessity to improve academic practices in Algerian academia and universities.

In the fields of Applied Linguistics, Applied Mathematics, and Applied Chemistry, the research article entitled “Move Analysis of Research Article Abstracts: A Cross-Disciplinary Study” by Darabad (2016) investigates research paper abstracts to assess their constituent rhetorical structures and grammatical aspects across these three fields. The study aimed to contribute to students' research article compositions in Discourse Analysis, ESP, and EAP classroom contexts through a cross-disciplinary examination of research articles. The corpus consists of 63 abstracts from research articles in the aforementioned fields. Nine research article abstracts were piloted, and Hyland's (2000) five-move model was determined to be the leading approach for future analysis and comparisons. The study identifies the main move patterns of each discipline, specific moves and steps, the voice and tense of verbs used in each move, and variations in authors' self-mentions. The findings offer pedagogical implications for professional instructors working in Discourse Analysis (DA), English for Academic Purposes (EAP), and English for Specific Purposes (ESP).

In the fields of Linguistics and Literature, the research article entitled “Genre Analysis of Research Article Abstracts in Linguistics and Literature: A Cross-Disciplinary Study” by Bhatti et al. (2019) examines a randomly selected corpus of 40 abstracts. The study aimed to investigate the macro and micro structures present in Linguistics and Literature abstracts, addressing a gap in the literature by comparing these two disciplines. To ensure that the study represents current trends in abstract patterns in both fields, recent abstracts were chosen. The paper uses Swales's (2004) CARS model for macro structure analysis and the AntMover program. For micro-level analysis, Swales & Feak's (2009) model was utilized. The main findings indicate that both Linguistics and Literature abstracts share two similar macro moves (1) and (3), with the exception of move (2). Notable micro-level contrasts include a higher prevalence of citations in Literature abstracts (95%) compared to Linguistics abstracts (30%), and a significant use of acronyms in Linguistics abstracts (65%) versus Literature abstracts (10%).

In the fields of Language Education and Acquisition, the research article entitled “Genre Analysis of Research Article Abstracts in Language Education and Acquisition Research” by Imsard (2021) aimed to fill a gap by examining the move structure of abstracts. The study analyzed 16 abstracts from a top journal on language education and acquisition in Thailand. While multiple studies have investigated various aspects of research papers (RAs) in applied linguistics and language education, little emphasis has been placed on abstracts from papers published in leading journals in Thailand. This study used Hyland's (2000) five-move macro model of rhetorical structure. For micro-level analysis, Swales & Feak's (2009) model was employed, focusing on the length of the abstract, use of tense, presence of citations, use of first-person pronouns, and acronyms. The study revealed that the purpose and product moves were the most frequently used in abstracts, whereas the introduction, method, and conclusion moves were often overlooked. Other findings showed that most abstracts were around 150 words long, predominantly used present tense verbs, and included some acronyms, with citations and first-person pronouns being uncommon.

In the field of Biostatistics, the research article entitled “Genre Analysis of Abstracts of Research Articles Published in Biostatistics” by Bonsu & Afful (2022) investigates the move structure and lexico-grammatical features of research article abstracts. The study analyzed a corpus of 40 abstracts from four different journals. The article focused on move frequency, move sequencing, and textual space. Hyland's (2000) five-move structural model guided the investigation, complemented by Hüttner's classification model (2010), which provides principles for determining the sequence and frequency of moves. The research findings highlight the paramount significance of the "Product" section in abstracts, serving as a succinct summary of major findings in RA research. Essential sections such as "Purpose," "Product," "Method," and "Conclusion" were underscored, following the preferred sequence M1>M2>M3>M4>M5. The Product move received the most textual space, with abstracts averaging 244 words. Personal pronouns and past verb tenses dominated the Method move. Modal verbs were uncommon overall but prevalent in the Introduction and Conclusion moves.

In the field of English Language Teaching, the research article entitled “The Rhetorical Structure and Research Gap Strategies of Journal Article Abstracts in Language Related Fields Published in High-impact International Journals” by Arsyad et al. (2023) investigated the rhetorical moves used in research article abstracts (RAAs) from high-impact international journals, with a particular emphasis on how writers use research gap strategies (RGS) in their abstracts. The study analyzed a corpus of 100 abstracts chosen from ten prestigious worldwide journals in language-related fields (LRF). The study follows Hyland's (2007) five-move model and employs five research gap strategies as outlined by Arianto et al. (2021). The findings indicate that RAAs often contain at least four moves (Moves 2, 3, 4, and 5). Despite being published in high-impact international journals, authors tend to avoid including Strategy 1 (highlighting the lack of research on a specific topic) and Strategy 4 (contrasting previous research findings) in their RAAs, though they may mention these strategies in the introductions.

In the field of English Language Teaching, the research article entitled “Genre Analysis of the Abstracts of EAP and AAP Journal Articles: A Comparative Study with Pedagogical Implications” by ElSerty (2024) examined the similarities and differences in move frequency and sequence in journal article abstracts from English for Academic Purposes (EAP) and Arabic for Academic Purposes (AAP) journals. The study analyzed a corpus of 10 abstracts, five from EAP journals and five from AAP publications, published between 2017 and 2022. The study investigates the lexicogrammatical features used by authors and examines the pedagogical implications and recommendations for further research. Using a predominantly qualitative analytical framework, color codes represent the rhetorical moves of Hyland (2000) in abstracts. Frequencies are determined, and the Chi-Square test is employed to compare move distributions. One main finding is that the Introduction and Methodology moves were more common in EAP samples, while the Purpose move appeared in all AAP abstracts but only 60% of EAP samples. The rates of Results and Conclusions were the same in both EAP and AAP abstracts.

- **Identification of the gap**

Previous studies, ranging from 2002 to the present, have focused on the genre analysis of research article abstracts, with corpora varying from ten to one hundred and sixty abstracts. At the macro level, these studies analyze rhetorical structures based on models by Swales (1981, 1990), Dudley-Evans (1986), Salager-Meyer (1990), Bhatia (1993), Santos (1996), Endres-Niggemeyer (1998), IMRD, Swales's (2004) CARS, and Hyland (2000, 2007). Micro-level analyses are based on models by Kaplan et al. (1994) and Swales & Feak (2009).

Furthermore, thematic analyses were conducted, examining thematic progression (TP) patterns and the thematic development method, or Halliday & Martin (1993) method, by analyzing the use of grammatical subjects as topic markers. The conclusions of these studies vary, with some confirming that abstracts align with the various models, while others suggest discrepancies.

Swales (1990) noted that certain fields have received substantially less attention in textual analyses of research article genres. Architectural heritage, in particular, has been overlooked in previous studies of abstract genre analysis. Consequently, this field was chosen for the current study to fill this gap and contribute to a more comprehensive understanding of research article abstracts on a global scale.

Conclusion

In conclusion of this chapter, the study of genre analysis of abstracts includes both macro and micro levels, providing a thorough comprehension of literary and textual conventions and models. At the macro level, academics examine overarching patterns and structures within genres to give insight on the well and general comprehension of the whole academic work, considering society standards, cultural influences, and historical settings. Meanwhile, the micro level goes into finer details, examining language traits, narrative approaches, and rhetorical strategies used in certain genres. Researchers use rigorous analysis to uncover the interaction between form and function, demonstrating how genres change, adapt, and affect communication in a variety of circumstances.

Chapter Two: Methodology

Introduction

The research design serves as the underlying blueprint for academic discovery, offering an organized framework for inquiry. Following that, the corpus is selected, and data is collected by carefully curating and gathering relevant items for analysis. With the data in hand, scholars use an analytical framework called genre analysis to carefully examine trends and customs within certain text kinds or genres. Data analysis next synthesizes the insights gained in the prior steps, making it easier to draw significant findings and consequences. This sequential procedure promotes methodological consistency and rigor, allowing scholars to make significant contributions to their fields and subfields of study such as Architecture Heritage.

Research Design

- Explanation of the research design

A researcher's systematic approach, which includes a variety of approaches and strategies, is referred to as research design. This framework intends to effectively handle the research challenge by providing guidelines on the methods to be used. It provides instructions on "how" to do research using a given approach. Researchers use research design to analyze their list of research questions since it acts as a plan for completing the study, defining the method and techniques (Kumar, 1999).

According to (Khanday & Khanam, 2019) to choose the sort of research design to use for a study, a researcher must first grasp the types of research designs such as:

- **Qualitative Research Design:** When mathematical calculations cannot predict data-to-observation correlations, a qualitative research design is used. It is used to investigate ideas about natural occurrences, with the goal of understanding why they exist and gaining.
- **Quantitative Research Design:** Quantitative research is essential when statistical findings are required for practical insights, particularly in making vital business choices, because numerical data provides more clarity. Its implementation is critical for organizational growth, since numerical analysis yields very effective business outcomes.

In the following table, a comparison and contrasting between the qualitative and quantitative research strategies:

Table 3.1. Compare/Contrast Qualitative and Quantitative Research Strategies
(Kavutu, 2024)

Qualitative	Quantitative
Belief that the world is not stable, coherent and uniform. Rather, meaning is situated in a particular perspective or context, and thus, there are multiple realities, none of which is more valid or true than another. The purpose is to explain and gain insight and understanding of phenomena through intensive collection of narrative data. Generate hypotheses to be tested, inductive.	Belief that we inhabit a relatively stable, uniform, and coherent world (single reality) what we can measure, understand, and generalize. The purpose is to explain, predict, and/or control phenomena through focused collection of numerical data. Test hypotheses, deductive.
Approach to Inquiry	
Inductive, value-laden (subjective), holistic, process-oriented	Deductive, value-free (objective), focused, outcome-oriented
Hypotheses	
Tentative, evolving, based on particular study	Specific, testable, stated prior to particular study
Review of Related Literature	
Limited Does not significantly affect particular study	Extensive Does significantly affect particular study
Research Setting	
Naturalistic (as is) to the degree possible	Controlled to the degree possible
Sampling	
Purposive: Intent to select "small," not necessarily representative, sample in order to acquire in-depth understanding	Random: Intent to select "large," representative sample in order to generalize results to a population
Measurement	
Non-standardized, narrative, ongoing	Standardized, numerical, at the end
Design and Method	
Flexible, specified only in general terms in advance of study Nonintervention, minimal disturbance All Descriptive— History, Biography, Ethnography, Phenomenology, Grounded Theory, Case Study, (hybrids of these) Consider many variable, small group	Structured, inflexible, specified in detail in advance of study Intervention, manipulation, and control Descriptive Correlation Causal-Comparative Experimental Consider few variables, large group
Data Collection Strategies	
Document and Artifact Collection Observation (participant, non-participant) Interviews/Focus Groups (un-/structured, in-/formal) Administration of questionnaires (open ended) Taking of extensive, detailed field notes	Observation (non-participant) Interviews and Focus Groups (semi-structured, formal) Administration of tests and questionnaires
Data Analysis	
Raw data are in words Essentially ongoing, involves synthesis	Raw data are numbers Performed at end of study, involves statistics
Data Interpretation	
Conclusions tentative, reviewed on an ongoing basis, generalizations speculative or nonexistent Inferences/generalizations are the reader's or consumer's responsibility.	Conclusions and generalizations formulated at end of study, stated with predetermined degree of certainty Inferences/generalizations are the researcher's responsibility Never 100% certain of our findings.

Regarding this table, the difference between qualitative and quantitative is wide evident, but it can be combined in specific cases.

In addition to qualitative and quantitative research designs, there is another type called mixed research design. According to Rani et al. (2019), mixed research design is a systematic and theoretical approach to conducting research that includes data collection, analysis, and interpretation, integrating both qualitative and quantitative data guided by specific principles. This approach leads to a better understanding of the research topic than either method alone. Originating in the social sciences, mixed research design has since spread to other fields such as nursing, family medicine, and social work. Over the last decade, it has grown and evolved to address a wide range of research questions from various disciplines (Rani et al., 2019).

- **Justification for using genre analysis as the primary method**

According to Swales (1990), genre analysis helps to reveal the goals or intents that underpin various text genres or communication events, where researchers can uncover the communicative goals that drive speech by examining repeating language structures within genres. Using genre analysis conducts the study to identify the generic structure by determining the general structure or organization of genres, which entails recognizing repeating patterns of textual elements, such as discourse structure, rhetorical moves, and language techniques that distinguish particular genres.

Using genre analysis leads to explore genre evolution and transformation, where researchers may also want to follow the historical development of genres across time, and can get an understanding of broad tendencies in language and cultural development by examining how genres have altered in response to variations in different contexts (Bazerman, 2004).

According to Biber & Conrad (2009), genre analysis also helps to study linguistic variances among genres and registers, and researchers can get insight into how situational conditions and sociocultural factors impact language usage by comparing linguistic features across genres.

Using genre-oriented approach and analysis, particularly one based on Systemic Functional and Cognitive Linguistics, allows to make significant progress in grasping macro and micro-genre structures while also improving the language competence. Adopting a genre-conscious approach appears to be significant to improving writing growth (Ariyanfar & Mitchell, 2020).

Corpus and data / collection and process of analysis

- Corpus and data collection

The abstracts were selected from the International Journal of Architectural Heritage through its website, abstracted/indexed in Arts and Humanities Citation Index, CSA Technology Research Database, Current Contents/Arts & Humanities, EBSCOhost Online Research Databases, Science Citation Index, and Scopus. This journal is ranked in Q1 CiteScore Best Quartile with a high impact factor (2022) of 2.4, CiteScore (Scopus, 2022) of 6.2, and SJR (Scimago Journal Rank, 2023) of 0,7. The Editors of this journal conduct an initial evaluation of every paper submitted. If considered eligible for further evaluation, it is subjected to peer review by independent experts while remaining anonymous. The peer review procedure involves a single level of anonymization. Approximately nine articles were published online per month in this journal as it is indicated in the following table:

Table 3.2. Number of the articles published online per month in the International Journal of Architectural Heritage (From May 2023 to April 2024)

Month	Number of articles per month
April 2024	10
March 2024	7
February 2024	9
January 2024	9
December 2023	8
November 2023	11
October 2023	6
September 2023	8
August 2023	9
July 2023	7
June 2023	9
May 2023	11
Total	104
Total / 12	8.67

This table shows that the number of articles published each month is approximately nine.

The abstracts were selected to ensure that the study reflected current patterns in abstracts. These abstracts were selected systematically and randomly as follows:

- Systematically: Over the course of the current academic year (2023/2024), spanning eight months from September to April. This includes September, October, November, and December of 2023, as well as January, February, March, and April, of 2024. This means, that more than 30% of each year of the total of issues is selected.
- Randomly: to ensure representativeness, more than 30% of the total number of published articles abstracts per month were randomly selected (three abstracts per month means twenty-four abstracts were selected).
- **Analytical framework and coding procedures**

This study is based on two levels to analyze data, macro level and micro level:

At the macro level

Numerous researchers have adopted various move models, which concern the rhetorical moves. A move, is a sub-unit of text within an abstract, possesses its own purpose in writing and conveying meaning. Two criteria aid in identifying these moves within the abstracts: the semantic-cognitive criterion, detecting components with semantic implications akin to a single communicative act, as articulated by Swales (1981) and Afful (2016), and the functional criterion, identifying text segments or "stretches of text" that serve the same function as a move as outlined by Eggins (2004). Below are some of the models adopted by different researchers:

Figure 3.1. Creating a Research Space (CARS) model
(Swales, 1990 and 2004, in Arianto et al. 2021)

Move 1 Establishing a territory Step 1 Claiming centrality (and/or) Step 2 Making topic generalization(s) (and/or) Step 3 Reviewing items of previous research Move 2 Establishing a niche Step 1A Counter-claiming (or) Step 1B Indicating a gap (or) Step 1C Question-raising (or) Step 1D Continuing a tradition Move 3 Occupying the niche Step 1A Outlining purposes (or) Step AB Announcing present research Step 2 Announcing principal findings Step 3 Indicating RA structure <i>A 1990 Swales' CARS Model</i>	Move 1 Establishing a territory Topic generalization of increasing specificity Move 2 Establishing a niche Step 1A Indicating a gap (or) Step 1B Adding to what is known Step 2 Presenting positive justification (optional) Move 3 Occupying the niche Step 1 Outlining purposes or stating the nature of the present research (Obligatory) Step 2 Listing research questions or hypothesis Step 3 Definitional clarifications (optional) Step 4 Summarizing methods (optional) Step 5 Announcing principal findings Step 6 Stating the value of the present research Step 7 Indicating structure of the research paper <i>A 2004 Swales' CARS Model</i>
---	--

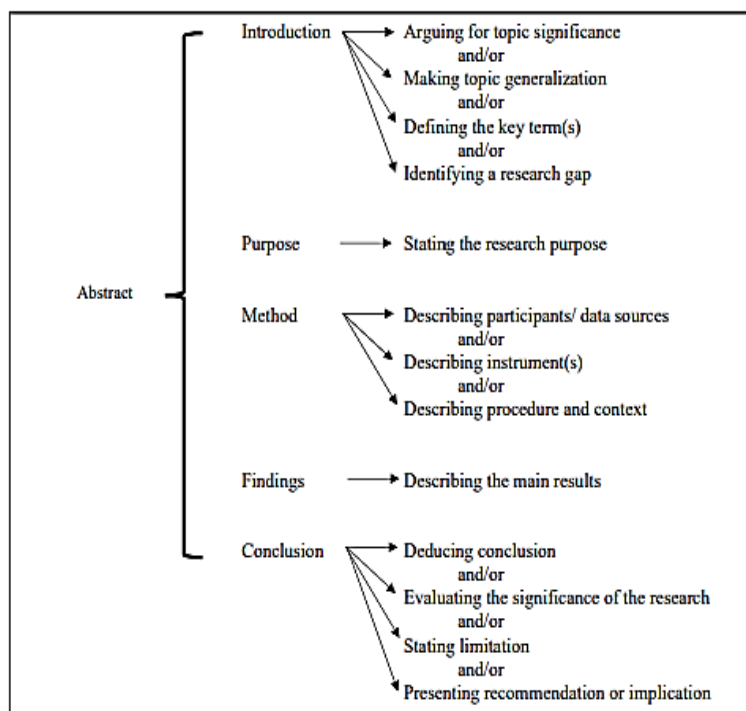
This figure shows the steps of an abstract based on CARS model

Figure 3.2. Bhatia’s and Dos Santos’ model of abstract moves (Bhatia’s model, 1993, Dos Santos’ model, 1996 in Amairi. 2012)

- | | |
|---|---|
| <ul style="list-style-type: none"> • Move 1– Introducing the purpose • Move 2 – Describing the methodology • Move 3 – Summarizing the results • Move 4 – Presenting the conclusions <p style="text-align: center;">Bhatia’s Model (1993)</p> | <ul style="list-style-type: none"> • Move 1– situating the research • Move 2 – presenting the research • Move 3 – describing the methodology • Move 4 – summarizing the results • Move 5 – discussing the results <p style="text-align: center;">Dos Santos’ Model (1996)</p> |
|---|---|

This figure shows the rhetorical structure of an abstract based on Bhatia’s and Dos Santos’ model

Figure 3.3. Hyland’s framework (2000) of RA abstracts (Hyland, 2000 in Arianto et al., 2021)



This figure shows the Hyland (2000) framework related to abstract moves.

Table 3.3. Classification rhetorical moves in article abstracts (Hyland, 2004 in Dogan-Ucar & Akbas, 2022)

Move	Function
Introduction	Establishes context of the paper and motivates the research or discussion.
Purpose	Indicates purpose, thesis or hypothesis, outlines the intention behind the paper.
Method	Provides information on design, procedures, assumptions, approach, data, etc.
Product	States main findings or results, the argument, or what was accomplished.
Conclusion	Interprets or extends results beyond scope of paper, draws inferences, points to applications or wider implications.

This table represents the Hyland (2004) model based on five moves with different functions.

Also, Hyland in 2007 described five potential rhetorical moves inside an abstract as follows:

- Move-1 (Establishes the context of the paper and motivates the study or discussion),
- Move-2 (Indicates purposes, thesis, or hypothesis, outlines the intention behind the paper),
- Move-3 (Provides information on design, procedures, assumptions, approach, data, etc.),
- Move-4 (Statement of main findings or results, the argument, or what was achieved), and
- Move-5 (Interprets or extends results beyond the scope of the paper, points to applications or wider implications).

It is necessary to count the number of times (Frequency) and the percentage the moves are present and the number of times (Frequency) and the percentage how they are arranged (Sequencing). The current study used Hüttner's (2010) model to categorize moves based on frequency and significance. The model recognizes four sorts of moves: (a) obligatory, (b) core, (c) ambiguous, and (d) optional moves. The model is presented in Table 3.4:

Table 3.4. Guidelines for deciding on status of individual moves
(Hüttner, 2010, p. 205)

Frequency of Occurrence	Status	Comments
90% - 100%	obligatory	genre exemplar usually considered inappropriate or in some way "flawed" <i>without</i> this move
50%-89%	core	typical of the genre, considered part of an appropriate and acceptable genre exemplar
30% - 49%	ambiguous	status can only be decided with further expert information – can be core or optional, acceptable or unacceptable (Phase 2 decisive)
1% - 29%	optional	not considered a typical feature of genre, can be considered an acceptable addition (=truly optional) move or unacceptable (-> Phase 2 decisive)

This table indicates that the percentages of status are ordered from optional to obligatory, passing through ambiguous and core.

For abstract move coding, this study adopt the Can et al.' s (2016) framework shown in table 3.5, which is based on Pho's (2008) framework adapted from Dos Santos' (1996) and Hyland's (2004) five-move pattern, with minor changes to one of the moves. Table 3.5 includes of descriptions of functions and a number questions to help with the practical coding of abstract moves.

Table 3.5. Framework for move coding adapted from Pho (2008)
(Can et al., 2016)

Abstract Moves (Pho [2008])	Function/Description	Question Asked	Move Labels along with Abbreviations in the Present Study
Situating the research	setting the scene for the current research	What is known in the field?	introduction (I)
Presenting the research	stating the purpose of the study, research questions and hypotheses	What is the study about?	purpose (P)
Describing the methodology	describing the materials, subjects, variables, procedures, etc.	How was the research done?	methods (M)
Summarizing the findings	reporting the main findings of the study	What did the researcher find?	results (R)
Discussing the research			
(a)	interpreting the results/findings and/or giving recommendations	What do the results mean?	discussion (D-a)
(b)	no discussions or recommendations		pseudo-discussion (D-b)

This table mention important questions to differentiate between moves. (As the moves start with the Introduction, in this study, the move of discussion is considered as a conclusion).

In addition to those move labels, this study uses colors to differentiate between moves, where Yellow is used for the Introduction (I), Bright Green is used for the Purpose (P), Turquoise is used for the Methods (M), Pink is used for the results (R), Gray is used for the Conclusion (C).

At the micro level

Although the examination of rhetorical structure is an important component of move analysis, a full genre analysis must also examine the linguistic characteristics that distinguish these moves. This method proposes that because moves have different communication tasks, each move will have a specific configuration of language possibilities (Egins 2004). This study adopted the Swales & Feak's (2009) model for micro analysis, the variables include: the length of the abstracts, use of tense, presence of any citation, presence of 1st person pronouns, and acronyms, as more detailed in table 3.6:

Table 3.6. Swales & Feak's (2009) model for micro analysis
(Swales & Feak, 2009, in Imsa-ard, 2021)

Variables	Characteristics
Length of abstracts	Less than 250 words
	Less than 200 words
	Less than 150 words
Use of tense	Present Verb and Past Verb
Presence of any citation	Both integral citations and non-integral citations
Presence of 1st person pronoun	Using I or we in the text
Acronyms	Any acronyms used in the text

This table details the variables of micro-level analysis.

To strengthen the validity of this research study, research findings of previous studies were evaluated in the chapter of literature review to create a suitable framework (section of the identification of the gap).

Conclusion

In conclusion, the methodology used in this study demonstrates a careful and intentional approach to investigation. The clarification of the research design establishes a clear path for reaching the study's objectives. The case for using genre analysis as the primary approach is supported by its success in revealing complex textual insights. Furthermore, the corpus and data are carefully collected and curated, ensuring the study's conclusions and findings are reliable and accurate. The use of an analytical framework and rigorous coding techniques strengthens the methodological rigor, allowing for robust analysis and meaningful interpretation of the data.

Chapter Three: Analysis of Results

Introduction

The analysis of results requires a thorough examination of constituents in a given corpus to understand its essence and uncover its underlying characteristics in order to display patterns of resemblance and variation. Genre is commonly defined as a set of communication events that have specific communicative aims and are identified by expert members of the relevant discourse community. Considering this study as a genre-based investigation that aims to reveal the occurrence of certain rhetorical moves in abstract writing of architectural heritage published articles, the present analysis of results is a two-level analysis; micro level and macro level. This chapter begins with highlighting the sections using different colors to locate the different moves in the abstracts. Then, a frequency-based statistical analysis is carried out to identify the rate of occurrence of each move (macro- level) besides the frequency of variables in the abstract (micro-level).

Analysis of results

According to Taylor & Francis database (2024) when writing an abstract, the researchers focus on: “*What your research is about*”, which means the background and objective (the **Introduction** move in addition to **Purpose** move), “*What methods have been used*”, which means the **Methods** move, and “*What you found out*”, which means the **Results** move (Appendix 2).

Based on genre analysis at the macro level, the following are the analyses of the twenty-four selected abstracts, to examine whether they strictly adhere to the moves suggested by the Taylor & Francis database, extend beyond them, or follow the five-move model proposed adapted from Can et al. (2016). In addition to the macro-level analysis, this section aims to extract the linguistic features (variables) displayed in each abstract based on the Swales and Feak model (2009).

By using five different colors, the moves are to be highlighted in the macro level analysis (yellow for the introduction, green for the purpose, light blue for the methods, purple for the findings and the grey color for the conclusion). Then, in the micro level analysis the frequency of variables is to be calculated in percentages.

Abstract 1 (Savini et al. (April 24th, 2024). Historical, Architectural, and Structural Virtual Tour for Conservation and Maintenance of Architectural Heritage.)

On the macro level analysis, colors are used to highlight moves in this abstract as follows:

“The Virtual Tour (VT) represents a key tool used in valorising and disseminating the historical and cultural value of built heritage. Basically, it has potential in supporting interdisciplinary technical activities associated with the historical and architectural aspects related to documentation and conservation. This paper defines the methodological lines into expanding the potentialities of the VT in the framework of a rational technical management and maintenance of historical assets from the Authorities. Thus, in addition to basic information related to historical and architectural aspects, engineering technical data collected during the knowledge path recommended by relevant National and International codes, dealing with static and seismic performance assessment and the conceptual design of structural interventions, have been included in the VT. The designed STRAINS-VT (hiSToRical, ArchItectural aNd Structural–Virtual Tour) is conceived as a dynamic approach supporting the knowledge and monitoring of valuable assets in time, being open to updates and integration. Benefits associated with the application of the proposed STRAINS-VT have been investigated referring to a real architectural heritage building located in Abruzzi Region (Italy). Research outcomes showed that the knowledge process, which goes from the digital integrated survey and the in-situ structural characterization of materials and components to the analysis and design of structural interventions, can be profitably incorporated within the VT. Particularly, the STRAINS-VT operational framework represents an accessible and easy interpretable informative hub that support technical Authorities having in charge the conservation, maintenance, and restoration of valuable assets in the decision-making, validation, and commissioning of strengthening and maintenance works.”

On the macro level, this 250 words abstract contains four moves, which are the Introduction (42 out of 250 words: 17%), Purpose (29 out of 250 words: 11%), Methods (102 out of 250 words: 41%), and Results (77 out of 250 words: 31%). Abstract 1 follows this sequence of moves: I>P>M>R.

On the micro level, table 4.1 shows the frequency of different variables (Swales & Feak, 2009):

Table 4.1. Micro level analysis of the abstract 1

Variables		Frequency
Length of abstract		250
Use of tense	Present tense	10: represents, has, defines, have been included, is conceived, have been investigated, goes, can be, represents, support.
	Past tense	10: used, associated, related, related, collected, recommended, associated, located, showed, incorporated.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		1: VT (7 times),

This table indicates the variables which are related to the micro level analysis.

Abstract 1 contains 250 words, where the present and past tenses were used equally (10 times). Citations, and first-person pronouns are absent. "VT" is the only acronym which is used 7 times.

Abstract 2 (Bourgeois et al. (April 14th, 2024). Methodology for the Application of 3D Technologies for the Conservation and Recovery of Built Heritage Elements.)

On the macro level analysis, the colored sections identify moves in this abstract as follows:

“The advent of 3D technologies unlocks new possibilities for capturing, analysing and preserving the intricate details of heritage sites. However, these technologies also raise technical and ethical challenges regarding the preservation of authenticity, integrity, and reversibility. This paper firstly analyses the ethical boundaries for the application of 3D technologies to cultural heritage through scrutinizing the extant literature and gathering the advantages and shortcomings of these technologies vis-à-vis traditional approaches. A comprehensive methodology is proposed for the restoration and conservation of historical structures using photogrammetry and 3D printing. By harmonizing technological potential with the ethical responsibilities of heritage conservation, the proposed framework promotes a balanced approach that not only addresses labour shortages of restoration specialists but also opens a realm of possibilities for cost reduction and superior quality control. In addition, the consistent nature of automation ensures that restoration and conservation tasks will be undertaken with meticulous precision, minimising material waste. Ultimately, this work is an insightful contribution that aims to shift rehabilitation and conservation of heritage sites towards automation not only to meet the needs of the moment but to propel us into a future where efficiency and sustainability are seamlessly intertwined.”

On the macro level, this 192 words abstract contains five moves, which are the Introduction (36 out of 192 words: 19%), Purpose (33 out of 192 words: 17%), Methods (29 out of 192 words: 15%), Results (52 out of 192 words: 27%), and Conclusion (42 out of 192 words: 22%). Abstract 2 follows this sequence of moves: **I>P>M>R>C**.

Meanwhile, on the micro level, the following table identifies the frequency of different variables:

Table 4.2. Micro level analysis of the abstract 2

Variables		Frequency
Length of abstract		192 (< 200)
Use of tense	Present tense	10: unlocks, raise, analyses, is proposed, promotes, addresses, opens, ensures, is, aims.
	Past tense	0
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		1: 3D (4 times)

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (192 words), having all verbs conjugated in the present tense. Citations and first-person pronouns are not used. The only acronym used in this abstract is "3D", which is mentioned four times.

Abstract 3 (Gómez-Robles & Melica. (April 4th, 2024). Characterisation and Contextualisation of Mortars from the 19th and First Half of the 20th Centuries in Muharraq, Bahrain.)

- Macro level: Using colors to identify different moves in this abstract as follows:

“Within the context of the restoration projects at the buildings of the Pearling Path in Muharraq (World Heritage Site), interdisciplinary research has been conducted to determine the composition and historical context of the various mortars present in these historic structures. Some previous analyses carried out on historic mortars indicated a predominant use of gypsum, although lime was also frequently identified. However, the lack of details about the analysed samples did not allow estimating the possible composition of the local traditional mortars through their dating or location. To understand the use of historic mortars, an in-depth historical research and data analysis were conducted. This focused on the chronological sequencing of the buildings’ construction which was combined with petrographic analysis performed on a group of samples. Their selection was based on a pre-classification made according to the dating and the visible appearance of the mortars. The new data also enabled fresh conclusions on previously published studies. The obtained result is a mineralogical characterisation of the mortars used in Muharraq during the 19th and the first half of the 20th centuries, supported by historical data, including information about the provenance, the application criteria, and an explanation of changes in material trends. This information will assist heritage professionals in gaining a deeper understanding of buildings from this period in Bahrain, enriching the knowledge of materials used in the region. It will enable them to predict the composition of historic mortars based on dating, location, and visible physical features such as colour, type of aggregates, and binder-to-aggregate ratio.”

This abstract contains five moves, which are the Introduction (86 out of 253 words: 34%), Purpose (7 out of 253 words: 3%), Methods (50 out of 253 words: 20%), Results (55 out of 253 words: 21.5%), and Conclusion (55 out of 253 words: 21.5%). This abstract has five moves sequenced as follows: I>P>M>R>C.

As far as the micro level is concerned, the following table identifies the frequency of variables:

Table 4.3. Micro level analysis of the abstract 3

Variables		Frequency
Length of abstract		253 (> 250)
Use of tense	Present tense	3: has been conducted, present, is
	Past tense	15: Carried, indicated, was identified, did not allow, were conducted, focused, was combined, performed, was based, made, enabled, used, supported, used, based
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		0

This table indicates the variables which are related to the micro level analysis.

This abstract contains more than 250 words (253 words), with the dominance of the past tense (15 times), while the present tense is used only in 3 cases. The variables that are absent are the citation, 1st person pronoun, and the acronyms.

Abstract 4 (Lo Presti et al. (March 19th, 2024). Streamlining FE and BIM Modeling for Historic Buildings with Point Cloud Transformation.)

On the macro level, the colored sections highlighted the moves in this abstract as follows:

“In this paper, a convenient workflow to obtain a simplified lightweight IFC description of a dense point cloud describing a historic building is proposed. The proposed procedure relies on slicing of the point cloud that aims at reconstructing the geometry of the solid. The resulting slices can then be easily employed in the generation of finite element (FE) and architectural building information modeling (BIM) models. In particular, the FE model generation procedure guarantees the obtainment of a conforming solid FE mesh ready to be used for structural purposes. Contextually, the architectural BIM model generation is achieved by slices extrusion to obtain the overall volume of the building. Then, the assembly of independent slice-based meshes is subjected to re-topology to obtain the overall watertight bounding surface of the building. A real historic structure is here used to show the effectiveness of the FE and BIM model generation procedures. Finally, the BIM model generation of an actual historic structure is carried out through the proposed workflow.”

This abstract contains three moves, which are the Purpose (24 out of 164 words: 15%), Methods (123 out of 164 words: 75%), and Results (17 out of 164 words: 10%). Abstract 4 follows this sequence of moves: **P**>**M**>**R**.

On the micro level analysis, table 4.4 is used to identify the frequency of different variables:

Table 4.4. Micro level analysis of the abstract 4

Variables		Frequency
Length of abstract		164 (< 200)
Use of tense	Present tense	8: is proposed, relies, aims, guarantees, is achieved, is subjected, is used, is carried
	Past tense	0
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		3: IFC (1 time), EF (4 times), and BIM (4 times).

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (164 words), with the dominance of the present tense (8 times) and the absence of the past tense, citation, and 1st person pronoun. In this abstract three acronyms were mentioned, which are “IFC” 1 time, “EF” 4 times, and “BIM” 4 times.

Abstract 5 (Min et al. (March 13th, 2024). Research on the Effectiveness of Tetraethoxysilane-Reinforced Earthen Site: Influence of Soil Water Content and Curing Humidity.)

On the macro level analysis, the colored sections identify the moves in this abstract as follows:

“To investigate the influence of soil water content and curing humidity conditions on the reinforcement effect of tetraethoxysilane on earthen sites, remolded rammed earth samples with 0%, 5%, 10%, and 14.5% water content were prepared and reinforced by tetraethoxysilane and then placed in the relative humidity conditions of 35%, 65%, and 85% for 28 days. The basic physical, mechanical, and durability properties of samples before and after reinforcement were evaluated, and the mechanism was clarified through microscopic analysis. Results showed that tetraethoxysilane strengthened the connection between soil particles and filled the pores by generating Si-O-Si groups mainly through a hydrolysis reaction. Under the same humidity condition, tetraethoxysilane had a better effect on the mechanical and durability properties of samples with low water content (0% and 5% in this paper), while it generated a weak reinforcement effect on the samples with high water content (10% and 14.5% in this paper). For samples with the same water content, too high a curing humidity condition (85% in this paper) was not favorable to the reinforcement effect of tetraethoxysilane. These conclusions were confirmed by microscopic analysis, including scanning electron microscopy, infrared spectroscopy, and X-ray photoelectron spectroscopy.”

This abstract contains three moves, which are the Purpose (21 out of 191 words: 11%), Methods (73 out of 191 words: 38%) dispatched in two different locations as shown in light blue above, and Results (97 out of 191 words: 51%). The sequence of moves in this article is: **P**>**M**>**R**>**M**.

To identify the frequency of different variables on the macro level, the following table is used:

Table 4.5. Micro level analysis of the abstract 5

Variables		Frequency
Length of abstract		191 (< 200)
Use of tense	Present tense	0
	Past tense	12: were prepared, were reinforced, were placed, were evaluated, was clarified, showed, strengthened, filled, had, generated, was, were confirmed.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		1: Si-O-Si (one time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (191 words), with all verbs (12 cases) used in the past tense. The variables which are absent are the present tense, the citation, and the 1st person pronoun.

Only one acronym, “Si-O-Si”, was mentioned in this article once.

Abstract 6 (Prosperi et al. (March 6th, 2024). 2D and 3D Modelling Strategies to Reproduce the Response of Historical Masonry Buildings Subjected to Settlements.)

On the macro level analysis, colors are used to identify different moves in this abstract as follows:

“In this study, 2D and 3D modelling strategies are used to represent the behaviour of historical masonry buildings on strip foundations undergoing settlements. The application focuses on a two-story building, typical of the Dutch architectural heritage. An improved 2D modelling is presented: It includes the effect of the lateral walls to replicate the response of the detailed 3D models. The masonry strip foundation is modelled and supported by a no-tension interface, which represents the soil-foundation interaction. Two settlement configurations, hogging and sagging, are applied to the models, and their intensity is characterized using their angular distortion. The improved 2D model that includes the stiffness and weight of the lateral walls agrees in terms of displacements, stress and damage with the detailed 3D models. Conversely, the simplified 2D façade models without lateral walls exhibit different cracking, and damage from 2 to 7 times lower at an applied angular distortion of 2‰ (1/500). The improved 2D model requires less computational and modelling burden, resulting in analyses from 9 to 40 times faster than the 3D models. The results prove the importance of identifying and including the 3D effects that affect the response of structures subjected to settlements.”

This 195 words abstract contains four moves, which are the Purpose (23 out of 195 words: 12%), Methods (73 out of 195 words: 37%), Results (78 out of 195 words: 40%), and Conclusion (21 of 195 words: 11%). The sequence of moves in this article is: **P**>**M**>**R**>**C**.

For the micro level analysis, the table 4.6 is used to identify the frequency of different variables:

Table 4.6. Micro level analysis of the abstract 6

Variables		Frequency
Length of abstract		195 (< 200)
Use of tense	Present tense	15: are used, focuses, is presented, includes, is modelled, is supported, represents, are applied, is characterized, includes, agrees, exhibit, requires, prove, affect.
	Past tense	0
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		2: 2D (5 times) and 3D (5 times).

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (195 words), with the dominance of the present tense (all the 15 verbs are used in the present). The variables which are absent are the past tense, the citation, and the 1st person pronoun. Two acronyms, "2D" and "3D", are mentioned in this article, each appearing five times.

Abstract 7 (Arias Tapiero et al. (February 23rd, 2024). An ICT-Enhanced Methodology for the Characterization of Vernacular Built Heritage at a Regional Scale.)

- Macro level: Using colors to identify different moves in this abstract as follows:

“The characterization of vernacular buildings is crucial for understanding the historical, social, and cultural significance of a community. These buildings reflect a collective memory and result from a long adaptation process to the local environment. Documenting them facilitates better decision-making regarding the preservation of their intrinsic values and long-term conservation. Unfortunately, depopulation processes in many areas threaten this invaluable heritage. Furthermore, this heritage is often overlooked due to a lack of awareness and appreciation by local authorities and residents. This paper presents a methodology for documenting and inventorying vernacular built heritage, with the main goal of contributing to promoting its valorization. The methodology integrates Information and Communication Technologies (ICT) with GIS tools to create large-scale inventories. Using the Montesinho Natural Park (Portugal) as a case study, the methodology facilitated the collection of data from over 2,000 buildings in 13 villages. The collected data was then used to characterize the vernacular built heritage of selected villages in terms of authenticity, conservation state, materials, construction systems, past interventions, present use, and occupancy. The findings of this study can serve as a valuable resource for developing inventories of vernacular buildings in rural areas, contributing to the protection of this distinctive architectural heritage.”

This abstract contains four moves, which are the Introduction (79 out of 199 words: 40%), Purpose (52 out of 199 words: 26%), Methods (39 out of 199 words: 20%), and Conclusion (29 of 199 words: 14%). The sequence of moves in this article is: I>P>M>F>C.

On the micro level analysis, the frequency of variables is displayed statistically in the table 4.7:

Table 4.7. Micro level analysis of the abstract 7

Variables		Frequency
Length of abstract		199 (< 200)
Use of tense	Present tense	7: is, reflect, facilitates, threaten, is overlooked, presents, integrates.
	Past tense	2: facilitated, was used.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		2: ICT (1 time) and GIS (1 time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains almost 200 words (199 words), with the dominance of the present tense over the past tense (7 verbs in the present vs. 2 verbs in the past). The variables which are absent are the citation and the 1st person pronoun. Two acronyms, "ICT" and "GIS", are mentioned once for each in this article.

Abstract 8 (Rifaioğlu et al. (February 18th, 2024). Traditional Know-How for Earthquake Resistance: The Logical Framework of Coffered Wall and Ceiling Systems in Historical Antakya Houses.)

On the macro level analysis, colors are used to identify different moves in this abstract as follows:

“Antakya, which is located in Southeast Türkiye, has unique traditional houses with coffered masonry stone walls with timber rectangular prisms and multileveled dome-like ceilings, called *tekne tavan* in local terminology, which perform relatively satisfactorily during earthquakes. There is a high earthquake risk in Antakya, and during the February 2023 earthquakes these traditional houses were affected. These structures are lighter than other masonry structures because they combine stone walls, timber elements, and coffers in their walls and ceilings. The objective of this article is to understand the logic behind these tectonic structures that do not have a place in literature. The article presents the structures of Antakya houses based on a systematic on-site investigation before and after the recent earthquakes as well as a systematic analysis of a building by 3D digital laser scanner documenting, enabling precise understanding of its process of construction. It can also be useful for restoration/rebuilding of damaged historic Antakya houses by providing historical know-how for earthquake resistance.”

This 161 words abstract contains three moves, which are the Introduction (77 out of 161 words: 48%), Purpose (22 out of 161 words: 13%), Methods (35 out of 161 words: 22%), and Results (27 out of 161 words: 17%). The sequence of moves in this article is: **I>P>M>R**.

On the micro level analysis, the following table is used to identify the frequency of different variables:

Table 4.8. Micro level analysis of the abstract 8

Variables		Frequency
Length of abstract		161 (< 200)
Use of tense	Present tense	10: is located, has, perform, is, are, combine, is, do not have, presents, can be.
	Past tense	2: called, were affected.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		1: 3D (one time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (161 words), with 10 verbs used in the present tense and only 02 verbs in the past tense. The variables which are absent are the citation and the 1st person pronoun. Only one acronyms, "3D" is mentioned in this article once.

Abstract 9 (de Lourdes Ferreira Minervino et al. (February 07th, 2024). Fire Risk Analysis: A Proposal for Historic Buildings in Brazil.)

On the macro level analysis, colors are used to identify different moves in this abstract as follows:

“Fire risk analysis is increasingly being applied to buildings as a tool for managing the risk of a fire event, and the extent of its consequences. However, such methods give different results depending on the fire code under which the building was designed, which can compromise the effectiveness of this type of analysis. Given that regulatory requirements for fire safety differ from place to place, methodologies focused on solely one legislation may not be applicable to buildings constructed under other legislation. This paper presents a proposal for a fire risk analysis methodology based on established parameters, independent of local legislation requirements. The method proposed in this article is called Cálculo Escalonar de Perigo de Incêndio — CEPI (Scalar Calculation of Fire Hazard). The aim is to make a free method, available to fire safety professionals; and to provide a practical tool for measuring fire safety in Brazilian heritage buildings.”

This abstract contains three moves, which are the Introduction (81 out of 148 words: 55%), Purpose being dispatched in two different locations (47 out of 148 words: 32%), and Methods (20 out of 148 words: 13%). The moves in this article are sequenced as follows: **I>P>M>P**.

On the micro level analysis, the following table identifies the frequency of different variables:

Table 4.9. Micro level analysis of the abstract 9

Variables		Frequency
Length of abstract		148 (< 150)
Use of tense	Present tense	8: is being applied, give, can compromise, differ, may not be, presents, is called, is.
	Past tense	3: was designed, focused, constructed.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		1: CEPI (One time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains 150 words (148 words), with the dominance of the present tense (8 verbs in the present vs. 3 in the past). The variables which are absent are the citation and the 1st person pronoun. Only one acronyms, "CEPI", is mentioned in this article for one time.

Abstract 10 (Zhou. (January 30th, 2024). Research on Traditional Reinforcement Techniques for Rammed Earth Walls in China.)

On the macro level analysis, the colored sections are used to identify different moves in this abstract as follows:

“Rammed earth is typically a material with a high compressive capacity and low tensile and shear strength. In traditional Chinese architecture, reinforcing rammed-earth walls with ties and beams is common. This study offers insights into the characteristics of reinforcement methods applied to rammed earth walls in houses and forts. After analyzing the mechanical failure of the walls, the article suggests that reinforcement can enhance mechanical performance by reducing shrinkage cracks, enhancing the bearing capacity of walls, and increasing the integrity of the entire building.”

This briefly composed abstract (84 words) contains four moves, which are the Introduction (30 out of 84 words: 36%), Purpose (19 out of 84 words: 23%), Methods (8 out of 84 words: 9%), and Results (27 out of 84 words: 32%). The sequence of moves in this article is: I>P>M>R.

On the micro level analysis, the following table is used to identify the frequency of different variables:

Table 4.10. Micro level analysis of the abstract 10

Variables		Frequency
Length of abstract		84 (< 150)
Use of tense	Present tense	5: is, is, offers, suggests, can enhance.
	Past tense	1: applied.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		0

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 150 words (84 words), with the dominance of the present tense (5 verbs in the present and only 1 verb in the past). The variables which are absent are the citation, the 1st person pronoun, and acronyms.

Abstract 11 (Saad et al. (January 12th, 2024). Comparative Study on Complete Characterisation of Elastic–Ductile Compressive Behaviour of Aged and New Norway Spruce Timber.)

On the macro level analysis, the study used colors to identify different moves in this abstract:

“Material properties of historical timber structures may change over time due to decay, change of chemical composition of material, biological agents, climatic conditions, etc. Adequate bending performance requires stiffness and strength both in tension and compression, as well as sufficient ductility in compression. While the focus of most research is on the former quantities, the latter one is generally disregarded. This study gives a comparative analysis on complete characterization of compressive behaviour of recent and 60-years-old aged spruce timber (Picea abies). Parallel-to-grain compressive tests on small-sized specimens were conducted to obtain stress – strain diagrams and to determine failure modes. All material properties of stiffness, strength, and ductility were calculated for each specimen. It was concluded that elastic stiffness, elastic limit stress, and compression strength are virtually invariable after sixty years of service while the ductility decreased and the post-peak behaviour became more brittle. It is also found that end-rolling failure mode can yield the same elastic and stiffness properties as the standard kinkband failure. Climatic changes increase the risk of material deterioration prompting for more thorough monitoring and study of historical timber structures.”

This abstract contains five moves, which are the Introduction (60 out of 183 words: 33%), Purpose (21 out of 183 words: 12%), Methods (31 out of 183 words: 17%), Results (52 out of 183 words: 28%), and Conclusion (19 out of 183 words: 10%). The sequence of moves in this article is:

I > P > M > R > C.

On the micro level analysis, table 4.11 is used to identify the frequency of different variables:

Table 4.11. Micro level analysis of the abstract 11

Variables		Frequency
Length of abstract		183 (< 200)
Use of tense	Present tense	8: change, requires, is, is disregarded, gives, are, can yield, increase.
	Past tense	6: were conducted, were calculated, was concluded, decreased, became, found.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		0

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (183 words). The use of the present tense outnumbers the use of the past tense (8 cases vs. 6 cases). The citation, 1st person pronoun, and acronyms are the variables which are absent in this abstract.

Abstract 12 (Chen et al. (January 3rd, 2024). Preservation or Revitalization? Examining the Conservation Status and Destructive Mechanisms of Tulou Heritage in Raoping, Chaozhou, China.)

On the macro level analysis, different colors are used to identify moves in this abstract as follows:

“Tulou is an ancient and remarkable residential heritage that has garnered global attention for their distinctive form and spatial layout that serves both defensive and settlement purposes. This paper provides a comprehensive analysis of the current preservation status of tulou, based on a field investigation of 83 officially recognized cultural relic protection units and immovable cultural relic tulou in Raoping County, Chaozhou City, Guangdong Province. This study focuses on primary damage conditions such as adding doors and windows on external rammed earth walls, replacing roofing materials, additional construction and overall reconstruction, while also revealing the mechanism of hollowing destruction. The study proposes utilizing the “Rural Revitalization” initiative, which is currently being vigorously advocated by the government, as an opportunity to introduce diversified functions into the protection and revitalization of tulou buildings. This will ensure that the tulou are preserved to their fullest extent while also allowing them to continue serving contemporary community life and establishing a new spiritual connection with modern-day villagers. This study offers realistic and comprehensive insights into the current state of tulou heritage preservation, as well as active and effective guidance for preserving and renovating not only tulou but also other residential architectural heritage around the world.”

This abstract contains five moves, which are the Introduction (27 out of 200 words: 13.5%), Purpose (13 out of 200 words: 6.5%), Methods (59 out of 200 words: 29.5%), Results (63 out of 200 words: 31.5%), and Conclusion (38 out of 200 words: 19%). The sequence of moves in this article is:

I > P > M > R > C.

On the micro level analysis, table 4.12 is used to identify the frequency of different variables:

Table 4.12. Micro level analysis of the abstract 12

Variables		Frequency
Length of abstract		200
Use of tense	Present tense	9: is, has garnered, serves, provides, focuses, proposes, is being advocated, are preserved, offers.
	Past tense	2: based, recognized.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		0

This table indicates the variables which are related to the micro level analysis.

This abstract contains 200 words. The present tense is used more than the past tense (9 verbs vs. 2 verbs). The abstract does not use any citation, 1st person pronoun, and acronyms.

Abstract 13 (An et al. (December 29th, 2023). Experimental and Parametric Study on Rotational Performance of Through-Tenon Joints in Traditional Timber Structures.)

On the macro level analysis, different moves are highlighted in different colors in this abstract:

“The rotational capacity of mortise-tenon joints is crucial for stability in traditional timber structures. However, these joints are influenced by various factors such as environmental conditions and internal features, impacting their rotational performance over time. To assess these influences, four groups of through-tenon joints with different small and large tenon lengths were constructed and tested. Deformation characteristics, hysteresis, bearing capacity, stiffness, and energy consumption of the joints were investigated. Finite element models were created and verified through testing. An orthogonal design scheme analyzed the effects of parameters and their interactions on rotational performance. The results indicated that increasing the length of the smaller tenon improved tenon pull-out length and ductility, while simultaneously reducing bearing capacity, stiffness, and energy dissipation. Tenon dimensions and the ratio of small tenon length to total tenon length were found to significantly impact peak moment. Critical parameters affecting rotational performance included tenon length, elastic modulus perpendicular to the grain, and the gap between the tenon and mortise.”

This abstract contains five moves, which are the Introduction (35 out of 161 words: 22%), Purpose (4 out of 161 words: 2%), Methods (54 out of 161 words: 33%), Results (46 out of 161 words: 29%), and Conclusion (22 out of 161 words: 14%). The sequence of moves in this article is:

I>P>M>R>C.

On the micro level analysis, the following table is used to identify the frequency of the variables:

Table 4.13. Micro level analysis of the abstract 13

Variables		Frequency
Length of abstract		161 (< 200)
Use of tense	Present tense	2: is, are influenced.
	Past tense	10: were constructed, were tested, were investigated, were created, were verified, analyzed, indicated, improved, were found, included.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		0

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (161 words). Unlike many other abstracts, the past is the dominant tense in this abstract (10 verbs in the past vs. 2 in the present). The variables which are absent in this article are the citation, 1st person pronoun, and acronyms.

Abstract 14 (Lallam et al. (December 17th, 2023). Fuzzy Analytical Hierarchy Process for Assessing Damage in Old Masonry Buildings: A Case Study.)

On the macro level analysis, colors are used to identify different moves in this abstract as follows:

“This study presents an approach using a fuzzy analytical hierarchy process to assist experts during inspection campaigns of old masonry buildings. The approach is developed through a case study on the assessment of damages to old masonry buildings. Fuzzy systems are preferred due to their ability to handle uncertainties by simulating human reasoning during decision-making. The problem is broken down into a hierarchy of 37 criteria and sub-criteria to enable informed decisions. The weights of these criteria are calculated using the FAHP approach, which is commonly used in multi-criteria decision-making. Experts then assign scores to estimate the global score, reflecting the overall damage to the historical structure. This overall level of damage is associated with a colour, indicating the degree of construction degradation. The methodology is illustrated in the assessment of the health condition of the historic monument of Emir Abdelkader’s staff, with results found to be in agreement with those obtained from previous expertise on the historical building. The study concludes that the method adopted is an effective scientific tool that can be of great support to experts in their task of assessing the damage caused to old Masonry buildings.”

This abstract contains four moves, which are the Purpose (15 out of 191 words: 8%), Methods (127 out of 191 words: 66%), Results (17 out of 191 words: 9%), and Conclusion (32 out of 191 words: 17%). The sequence of moves in this article is: P>M>R>C.

On the micro level analysis, table 4.14 is used to identify the frequency of different variables:

Table 4.14. Micro level analysis of the abstract 14

Variables		Frequency
Length of abstract		191 (< 200)
Use of tense	Present tense	12: presents, is developed, are preferred, is broken, are calculated, is used, assign, is associated, is illustrated, concludes, is, can be.
	Past tense	3: found, obtained, caused.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		1: FAHP (One time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains 200 words (191 words), with the dominance of the present tense (out of 15 verbs, 12 are used in the present, while 3 are used in the past). The variables which are absent are the citation and the 1st person pronoun. Only one acronyms, "FAHP", is mentioned in this article for one time.

Abstract 15 (Mouraz et al. (December 5th, 2023). Application of Data Mining Techniques to Rural Vernacular Buildings: A Methodology for Characterisation and Awareness.)

On the macro level analysis, different moves were highlighted using colors in this abstract:

“Data-mining techniques (DMTs) have been widely used in the context of existing buildings. However, studies comparing its application to different objects and using rural territories with vernacular constructions as case studies remain highly unexplored. This paper discusses a methodology applied towards characterising two rural settlements in Portugal and Spain using DMTs and GIS-based maps to support the interpretation of results. Conclusions such as the existence of outliers or the optimal number of clusters are drawn, as well as the nature of clusters and their pertinence in identifying buildings closer to the vernacular matrix. Adapting the numerical database is suggested as future research, reducing the number of variables to obtain more accurate insights into the identification of vernacular buildings. Investigations such as the one presented in this paper promote awareness concerning the conservation and improvement of rural settlements, ultimately stimulating action towards territorial cohesion and sustainable development through future rehabilitation actions in vernacular built heritage.”

This abstract contains five moves, which are the Introduction (34 out of 154 words: 22%), Purpose (15 out of 154 words: 10%), Methods (11 out of 154 words: 7%), Results (33 out of 154 words: 21%), and Conclusion (61 out of 154 words: 40%). The sequence of moves in this article is:

I>P>M>R>C.

On the micro level analysis, the following table is used to identify the frequency of variables:

Table 4.15. Micro level analysis of the abstract 15

Variables		Frequency
Length of abstract		154 (< 200)
Use of tense	Present tense	7: have been used, remain, discusses, applied, are drawn, is suggested, promote.
	Past tense	1: presented.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		2: DMTs (2 times) and GIS (1 time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (154 words), with the dominance of the present tense (7 verbs in the present vs. 1 in the past). The variables which are absent are the citation and the 1st person pronoun. Two acronyms are used in this article, "DMTs" appearing twice and "GIS" one time.

Abstract 16 (Garbin et al. (November 30th, 2023). Fibre-Reinforced Geopolymers (FRGPs) as Inorganic Composites for Flexural Strengthening of Brick Masonry.)

On the macro level analysis, the different colors are used to identify different moves in this abstract as follows:

“This study presents an assessment of externally bonded Fibre-Reinforced GeoPolymers (FRGPs) as strengthening material for masonry structures. Geopolymer matrices can also potentially fulfil the requirements of restoration criteria for historical buildings, with heat-resistant performances generally better than Fibre-Reinforced Polymers (FRPs). Four FRGPs, embedding either unidirectional steel or bidirectional carbon, basalt or glass mesh as reinforcement, were tested by means of local shear and bending tests on fired clay brick specimens, either alone or coupled with hydraulic lime mortar. In addition, the behaviour of each reinforcement exposed to alkaline environments was investigated through tensile tests on coupons. Results confirmed the interesting potential of FRGPs for strengthening masonry elements, highlighting a good performance of steel and carbon reinforcements.”

This abstract contains three moves, which are the Purpose (40 out of 116 words: 35%), Methods (56 out of 116 words: 48%), and Results (20 out of 116 words: 17%). The sequence of moves in this article is: **P**>**M**>**R**.

On the micro level analysis, the following table is used to identify the frequency of different variables:

Table 4.16. Micro level analysis of the abstract 16

Variables		Frequency
Length of abstract		116 (< 150)
Use of tense	Present tense	3: presents, can, fulfil.
	Past tense	4: were tested, exposed, was investigated, confirmed.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		2: FRGPs (3 times) and FRPs (1 time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 150 words (116 words). The present tense is used slightly more than the past tense (4 verbs in the present vs. 3 in the past). The variables which are absent are the citation and the 1st person pronoun. Two acronyms were used in this article, "FRGPs" appearing three times and "FRPs" only one time.

Abstract 17 (Drougkas et al. (November 13th, 2023). Mechanical and Durability Testing and XCT Imaging of a Lime-Based Micro-Scale Modified Smart Intervention Mortar.)

On the macro level analysis, the colored sections highlight the moves in this abstract as follows:

“Intervention materials for historic structures need to be mechanically and physically compatible with the in-situ material for maintaining durability. For historic masonry structures, joint repointing is ideally executed using lime-based mortars, which are inherently low-strength and deterioration-prone. Mortar modification through micro-scale fillers, in addition to enhancing self-sensing, could enhance mechanical properties, thereby improved intervention agents. Therefore, micro-scale modification of mortars can lead to the creation of smart intervention materials, suitable for structural health monitoring. This paper presents the mechanical and physical testing conducted on a natural hydraulic lime-based mortar modified using carbon microfibers. The objective of the study was the evaluation of the mechanical advantages of a micro-scale modified material over its unmodified counterpart as a repointing mortar for masonry structures. The strength enhancement of paste and mortar was measured. Changes in workability, durability and porosity due to modification were investigated. The test results helped establish the superiority of the modified mortar as an intervention material compared to the unmodified lime mortar. The modified materials exhibited enhanced mechanical strength. The consistence of the modified mortar was not negatively impacted by the micro-scale fillers. The modified mortar had slightly lower salt intrusion durability, while the durability of the paste was improved.”

This abstract contains four moves, which are the Introduction (74 out of 200 words: 37%), Purpose (47 out of 200 words: 23.5%), Methods (20 out of 200 words: 10%), and Results (59 out of 200 words: 29.5%). The sequence of moves in this article is: I>P>M>R.

On the micro level analysis, table 4.17 is used to identify the frequency of different variables:

Table 4.17. Micro level analysis of the abstract 17

Variables		Frequency
Length of abstract		200
Use of tense	Present tense	9: need, is executed, are, could, enhance, can, lead, presents, establish.
	Past tense	13: improved, was, modified, conducted, was measured, were investigated, helped, compared, exhibited, enhanced, was not impacted, had, was improved.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		0

This table indicates the variables which are related to the micro level analysis.

This abstract contains 200 words, where the verbs in the past tense outnumber the verbs in the present tense (13 verbs in the past vs. 9 verbs in the present). The variables which are absent are the citation, 1st person pronoun, and acronyms.

Abstract 18 (Dursun et al. (November 6th, 2023). Reconstruction of an Ancient Hill Used as an On-Site Quarry: Castrum Zerzevan (SE-Türkiye).)

On the macro level analysis, colors are used to identify different moves in this abstract as follows:

“The Roman period Castrum Zerzevan is on a hill 35 km south of Diyarbakır, Türkiye. Various field evidence (e.g. petrographic similarities, sudden changes of the topographic contours, the morphology of the nearby hills, and traces of the on-site quarry activities) suggests that the topography of the hilltop was artificially modified and used as a quarry. This study aims to introduce an approach that creates the ancient topography and calculates and verifies the volume of the on-site material required to build the fortification and associated structures by applying morphological analyses. The primary objective of the methodology is to reconstruct the site’s ancient topography and examine the difference between its former and present surfaces. The result indicates that approximately 36% of the extracted material was used in the enclosure. The overall findings and site investigations suggest quarrying and construction activities were carried out in a planned manner or concurrently at the site. In addition to the collected samples’ petrographic and geochemical similarities, the Castrum’s topographical modifications and the suitability of the geological unit as a building material support our claim that the Romans were well aware of environmental conditions (including topography and morphology) and material performance.”

This abstract contains five moves, which are the Introduction (54 out of 193 words: 28%), Purpose (30 out of 193 words: 16%), Methods (27 out of 193 words: 14%), and Results (82 out of 193 words: 42%). The sequence of moves in this article is: **I>P>M>R**.

On the micro level analysis, the following table is used to identify the frequency of variables:

Table 4.18. Micro level analysis of the abstract 18

Variables		Frequency
Length of abstract		193 (< 200)
Use of tense	Present tense	11: is, suggests, aims, creates, calculates, verifies, is, indicates, suggest, were carried, support.
	Past tense	4: was modified, was used, was used, were.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		1: e.g. (one time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (193 words). The present tense the dominant tense (out of 15 verbs, 11 are in the present). The variables which are absent are the citation and the 1st person pronoun. Only one acronym is used in this article, appearing once, which is "e.g.”

Abstract 19 (Franz et al. (October 27th, 2023). French Metallic Train Sheds of 1850 to 1930: Structural Specificities and the Evolution of the Restoration Practices.)

On the macro level analysis, colors are used to identify different moves in this abstract as follows:

“Surviving historic train sheds constitute a broad and representative sample of metal construction of the period 1850 to 1930 in France. This article gives a historical overview of the life of iron or steel train shed structures and questions what makes them authentic, discussing the validity of some of the restoration choices made since the 20th century regarding heritage preservation. First, the specificities of this architectural heritage are highlighted and compared with other countries and other types of construction. Then, based on extensive archive material held by the French national railway company SNCF, the modifications the metallic structures underwent as restoration projects were carried out are analysed. It appears that the restoration practices significantly evolved between the 1970s-1980s and the beginning of the 21st century, becoming more sensitive to heritage preservation. However, choices regarding roofing materials have an impact on the loading of the structure, while structural interventions change the appearance and the load distribution. This enhances the need to include considerations regarding the preservation of the structure in the early stages of restoration projects.”

This abstract contains five moves, which are the Introduction (21 out of 175 words: 12%), Purpose (39 out of 175 words: 22%), Methods (47 out of 175 words: 27%), Results (48 out of 175 words: 27.5%), and Conclusion (20 out of 175 words: 11.5%). The sequence of moves in this article is:

I>P>M>R>C.

On the micro level analysis, table 4.19 is used to identify the frequency of different variables:

Table 4.19. Micro level analysis of the abstract 19

Variables		Frequency
Length of abstract		175 (< 200)
Use of tense	Present tense	10: constitute, gives, makes, are highlighted, are compared, are analysed, appears, have, change, enhances.
	Past tense	2: were carried out, evolved.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		1: SNCF (one time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (175 words). The present tense is the dominant tense (out of 12 verbs, 10 are in the present). The variables which are absent are the citation and the 1st person pronoun. Only one acronym is used in this article, appearing one time, which is "SNCF".

Abstract 20 (Guo et al. (October 11th, 2023). Erosion Model for Wind-Blown Sand Flow at Earthen Sites in Arid Environment, Northwest China.)

On the macro level analysis, different colors are used to identify different moves in this abstract as follows:

“This study investigates the erosive impact of wind-blown sand on earthen sites within arid environments through the establishment of meteorological observation equipment. Over a span of 47 months, a comprehensive approach encompassing numerical simulation, plume analysis, particle examination, three-dimensional scanning, and photo monitoring was employed to continuously monitor the patterns of wind-blown sand movement and the degradation of test walls. The study identifies six distinct zones extending from five times the windward side to ten times the leeward side of the test wall’s height. Notably, a negative correlation between captured particle mass and the height of the sand traps is observed, with 70% of particles concentrated within 50 cm from the base of the test wall. Three primary erosion mechanisms for wind-blown sand are elucidated, including frontal impact, side abrasion, and reverse sapping. Furthermore, the study highlights pronounced erosion at the base of the wall due to vortex flow, with depth erosion affecting the lower, side, and upper sections of the test walls. This paper delves into the erosion mechanisms and operational models of wind-blown sand flow surrounding discontinuous site walls, offering valuable insights for the conservation of ancient earthen sites.”

This abstract contains four moves, which are the Purpose (22 out of 189 words: 12%), Methods (61 out of 189 words: 32%), Results (78 out of 189 words: 41%), and Conclusion (28 out of 189 words: 15%). The sequence of moves in this article is: **P**>**M**>**R**>**C**.

On the micro level analysis, the following table is used to identify the frequency of variables:

Table 4.20. Micro level analysis of the abstract 20

Variables		Frequency
Length of abstract		189 (< 200)
Use of tense	Present tense	6: investigates, identifies, is observed, are elucidated, highlights, delves.
	Past tense	2: was employed, concentrated.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		0

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (189 words). The present is the dominant tense in this abstract (6 verbs) with only 2 verbs used in the past tense. The rest of variables are absent, which are the citation, 1st person pronoun, and acronyms.

Abstract 21 (Himouri et al. (October 6th, 2023). Compressive Creep and Ultrasonic Characterization of Adobe Bricks Stabilized with Quicklime, Portland Cement, and Date Palm Fibers.)

On the macro level analysis, the colored sections indicate the moves in this abstract as follows:

“As ecological architecture and green buildings have become essential in the fight against climate change, earthen architecture has an undoubted role to play in achieving this goal because of its numerous benefits. To help providing a better understanding of the behavior of earthen materials to fulfill modern architectural needs and to preserve earthen heritages, this study aims to investigate the effect of stabilization using Portland cement and quicklime and that of reinforcement using date palm fibers on the compressive creep, ultrasonic properties, and swelling of adobes, besides their impacts on physical characteristics. One of the earthen heritages in Algeria is taken as a case study, and various adobe mixes were examined to attain this objective. The outcomes revealed that stabilization overall improved the properties of adobes, unlike the mutable impact of fibers. Stabilizers played an important role in reducing creep, while fibers reduced the creep of the unstabilized adobes and those with 6%PC-3%QL, but withdrew the positive effect that was offered by binders for adobes with 10%QL and 3%PC-6%QL. Water absorption and swelling were reduced by stabilization, but both increased with the presence of fibers. The changes in ultrasonic characteristics showed a good correlation with those of compressive strength.”

This abstract contains five moves, which are the Introduction (32 out of 199 words: 16%), Purpose (31 out of 199 words: 15.5%), Methods (52 out of 199 words: 26%), and Results (84 out of 199 words: 42.5%). The sequence of moves in this article is: **I>P>M>R**.

On the micro level analysis, the following table is used to identify the frequency of variables:

Table 4.21. Micro level analysis of the abstract 21

Variables		Frequency
Length of abstract		199 (< 200)
Use of tense	Present tense	4: have become, has, aims, is taken.
	Past tense	10: were examined, revealed, improved, played, reduced, withdrew, was offered, were reduced, increased, showed.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		2: PC (2 times) and QL (3 times).

This table indicates the variables which are related to the micro level analysis.

In this 199 words abstract, the past tense is the dominant tense (10 verbs in the past, while 4 verbs are in the present tense). The variables which are absent are the citation and 1st person pronoun.

Two acronyms are used in this article, "PC" appearing two times and "QL" only three times.

Abstract 22 (Bartolini et al. (September 27th, 2023). Proof of Concept for Methodological Framework Including Point Clouds in the Non-Destructive Diagnosis of Historical Masonry Structures.)

On the macro level analysis, colors are used to highlight the moves in this abstract as follows:

“The diagnosis of cultural heritage structures is a challenging and delicate task. It involves the evaluation of potential pathological situations, the understanding of the origin of displacements and deformations, and the assessment of the state of conservation of building materials. Destructive and minor destructive techniques are mostly prevented from being used in the context of historical constructions and the complementary use of non-destructive techniques is often the only viable solution. This paper addresses the possibility of employing point clouds, widely used for representation aims, as a source of information to identify the deterioration patterns that can affect construction safety. The proposed methodology includes two approaches following a perspective based on simple and recurring elements that form the complex and unique shape of historical buildings. The geometry of structural elements guides the choice towards the computation either of the Z-coordinate of each point of the cloud or the Euclidean distance between the point cloud and an elementary non-deformed geometry fitted to it. By investigating several case studies and diverse deterioration patterns, the proposal establishes a framework to employ point clouds, together with other techniques, as an effective tool to support the diagnosis of heritage structures.”

This abstract contains four moves, which are the Introduction (70 out of 194 words: 36%), Purpose (29 out of 194 words: 15%), Methods (62 out of 194 words: 32%), and Results (33 out of 194 words: 17%). The sequence of moves in this article is: I>P>M>R.

On the micro level analysis, the following table is used to identify the frequency of variables:

Table 4.22. Micro level analysis of the abstract 22

Variables		Frequency
Length of abstract		194 (< 200)
Use of tense	Present tense	10: is, involves, are prevented, being used, addresses, can affect, includes, form, guides, establishes.
	Past tense	1: fitted.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		1: Z (one time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (194 words). The present tense is the dominant tense (10 verbs in the present, 1 in the past). The variables which are absent are the citation and the 1st person pronoun. Only one acronym was used in this article, appearing one time, which is "Z".

Abstract 23 (Vandenabeele et al. (September 20th, 2023). Deep Learning for the Segmentation of Large-Scale Surveys of Historic Masonry: A New Tool for Building Archaeology Applied at the Basilica of St Anthony in Padua.)

On the macro level analysis, colors are used to highlight the moves in this abstract as follows:

“In the last decade, the documentation of historical buildings has made tremendous progress in generalising the use of high-precision laser scanning and drone photogrammetry. Yet the potential of digital surveying is not fully exploited due to difficulties in manually analysing large amounts of collected data. Machine learning offers immense potential as a game-changer in building archaeology, especially for the documentation of structures composed of millions of units. This paper presents the first segmentation of large-scale surveys of historic masonry using machine learning, using the thirteenth-century Basilica of St Anthony (Padua, Italy) as a case study. Based on a drone survey of the north façade of the building (110 × 70 m), a state-of-the-art non-learning segmentation approach is described and its limitations for historical structures are illustrated. Then, a new workflow based on convolutional neural networks (CNN) is presented. The result is a precise mapping of about 300,000 individual bricks showing a large variety of formats and bonds. The automatic surveys are analysed using visual programming language (VPL), enabling a rapid and feature-based identification of building phases and repair interventions. The outcome demonstrates the validity of machine learning for the analysis of historical structures and its potential in the field of heritage.”

This abstract contains five moves, which are the Introduction (67 out of 198 words: 34%), Purpose (12 out of 198 words: 6%), Methods (56 out of 198 words: 28%), Results (41 out of 198 words: 21%), and Conclusion (22 out of 198 words: 11%). The sequence of moves in this article is:

I>P>M>R>C.

On the micro level analysis, table 4.23 is used to identify the frequency of different variables:

Table 4.23. Micro level analysis of the abstract 23

Variables		Frequency
Length of abstract		198 (< 200)
Use of tense	Present tense	10: has made, is not exploited, offers, presents, is described, are illustrated, is presented, is, are analysed, demonstrates.
	Past tense	1: composed.
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		2: CNN (1 time) and VPL (1 time).

This table indicates the variables which are related to the micro level analysis.

This abstract contains nearly 200 words (198 words). In this abstract, out of 11 verbs, 10 are in the present tense while only 1 verb is used in the past tense. The variables that are absent are the citation and 1st person pronoun. Two acronyms were used in this article, "CNN" and "VPL", each appearing once.

Abstract 24 (Zhang et al. (September 6th, 2023). Moment-Rotation Calculation Method and Parameter Analysis for Loose Continuous-Tenon Joint in Column-And-Tie Timber Structure.)

On the macro level analysis, colors are used to identify different moves in this abstract as follows:

“To quantitatively calculate the moment-rotation relationship of loose continuous-tenon joints in traditional column-and-tie timber frame, the rotational deformation of loose joints is divided into two stages: free sliding and contact compression. Using constitutive, geometric, and equilibrium equations, a theoretical formula for moment-rotation is derived. The calculated values are then compared with experimental results to validate the accuracy of the theoretical calculation method. A sensitivity analysis is conducted on typical parameters, such as beam height, column diameter, joint clearance, and perpendicular compression modulus of wood, to explore their effects on the moment-rotation relationship of tenon joints. The results show that increasing the perpendicular compression modulus of wood leads to greater bending stiffness and load carrying capacity of tenon joints, with the latter increasing more significantly. In the elastic stage, the rotational stiffness of the joint increases with beam height or column diameter, while after entering the elastoplastic stage, the joint stiffness is less influenced by these factors. The initial rotational stiffness and load carrying capacity of the joint both decrease with joint clearance, and the effect of joint clearance on load carrying capacity decreases as the clearance increases when the joint enters the yielding stage.”

This abstract contains four moves, which are the Purpose (15 out of 194 words: 8%), Methods (80 out of 194 words: 41%), Results (61 out of 194 words: 31%), and Conclusion (38 out of 194 words: 20%). The sequence of moves in this article is: **P**>**M**>**R**>**C**.

On the micro level analysis, the following table is used to identify the frequency of variables:

Table 4.24. Micro level analysis of the abstract 24

Variables		Frequency
Length of abstract		194 (< 200)
Use of tense	Present tense	12: is divided, is derived, are compared, is conducted, show, leads, increases, is influenced, decrease, decreases, increases, enters.
	Past tense	0
Presence of any citation	Integral citation	0
	Non-integral citation	0
Presence of 1 st person pronoun	I	0
	We	0
Acronyms		0

This table indicates the variables which are related to the micro level analysis.

This abstract contains less than 200 words (194 words). In this abstract, all verbs are used in the present tense. The variables that are absent are the past tense, citation, 1st person pronoun, and acronyms.

Conclusion

The macro analysis of the research article abstracts focuses on the text's general structure and arrangement. This involves looking at common components like Introduction, Purpose Methods, Results, and Conclusion. Micro analysis, on the other hand, focuses on specific language aspects within these sections, such as the use of tense, presence of citation, presence of 1st person pronoun, and the use of acronyms. Integrating macro and micro analysis enables researchers to gain a full understanding of the standards and communication events methods that define research abstracts across fields, which make abstracts sound well-structured, informative and effective. This integrated approach focuses on both the overarching structural standards and the specific language choices that make abstracts effective (Bhatia, 1993). Based on the macro and micro level analysis, results of analyzing twenty four research article abstracts in architectural heritage revealed that authors use different formats in crafting their abstracts including different move patterns.

Chapter Four: Discussion of Results

Introduction

This chapter involves interpretation, explanation and discussion of the findings, focusing on important outcomes by comparing the present study's findings to the findings of the previous studies. It aims to assess whether the present study addresses the identified research gaps and determines if the new findings contribute to the current body of literature. Therefore, this chapter presents a detailed discussion for different results and findings obtained from the analysis of the twenty four abstracts, based on several moves, for the macro analysis, and several variables and characteristic for the micro analysis.

Macro level analysis

The macro level analysis put emphasis on the arrangement and existence of significant rhetorical moves, and the ways they are organized. In this study this level of analysis aids in the identification of similar patterns and variances across different abstracts written by authors in the field of architectural heritage. Following the adapted model of Can et al. (2016), the frequency of moves found in the abstracts and their status is detailed in the following table:

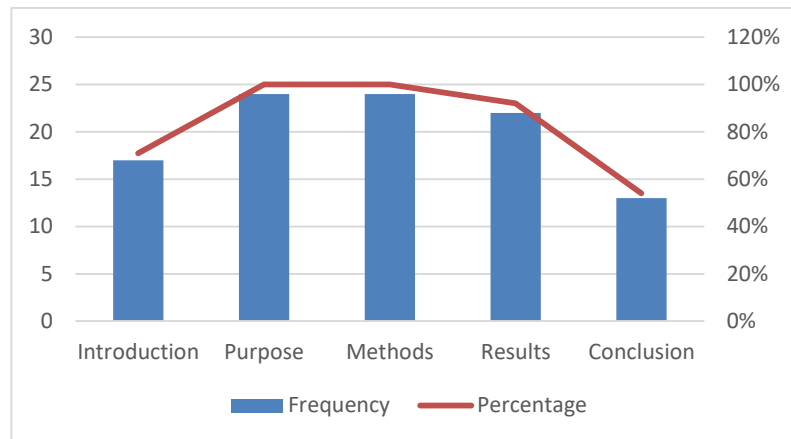
Table 5.1. Frequency of moves found in the abstracts and their status

Moves	Frequency	Percentage	Percentage of occurrence	Status
Introduction	17	71%	50% - 89%	Core
Purpose	24	100%	90% - 100%	Obligatory
Methods	24	100%	90% - 100%	Obligatory
Results	22	92%	90% - 100%	Obligatory
Conclusion	13	54%	50% - 89%	Core

This table indicates the frequency and status of moves in the analyzed abstracts with percentages.

Regarding table 5.1, all moves are present with different frequencies. Purpose and Methods are the moves which are present in all abstracts, the Results in the major abstracts, and the Introduction and the Conclusion are used in over half of abstracts. This table is better interpreted using the bar chart as shown in the following figure:

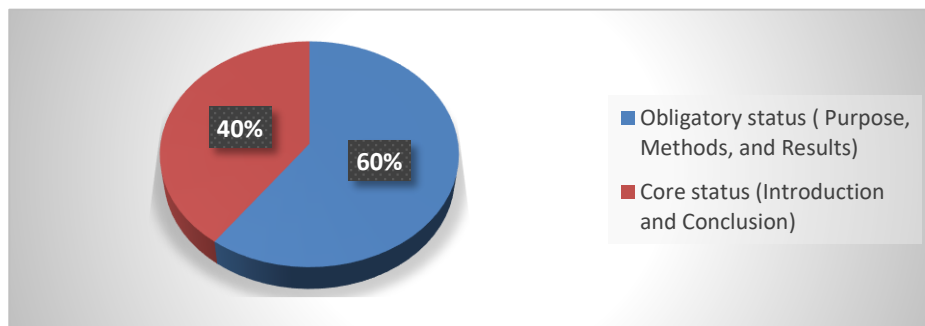
Figure 5.1. Frequency and percentages of occurrence of moves in abstracts



This figure indicates the frequency of moves in the analyzed abstracts with percentages.

Referring to Hüttner, (2010), the following figure interprets the status of moves using pie chart:

Figure 5.2. Percentages of moves status referring to Hüttner (2010)



This figure indicates the percentages of status of moves which exist in the analyzed abstracts.

The percentages of the occurrence of the Purpose, Methods, and Results moves range between 90% and 100%, this means that these three moves are obligatory in writing abstracts, in other words, the effective abstract is “*inappropriate or in some way “flawed” without this movement*” (Hüttner, 2010, p.205). The percentages of the occurrence of the Introduction and Conclusion moves range between 50% and 89% which means that these two moves are core in writing abstracts and “*considered part of an appropriate and acceptable genre exemplar*” (Hüttner, 2010, p.205). Figure 5.2 indicates that obligatory and core statuses are present, but the ambiguous and optional statuses (Hüttner, 2010, p.205) do not exist in all abstracts.

In table 5.2, the results of the textual space which is considered in this study as word number:

Table 5.2. Different results related to the number of words (textual space)

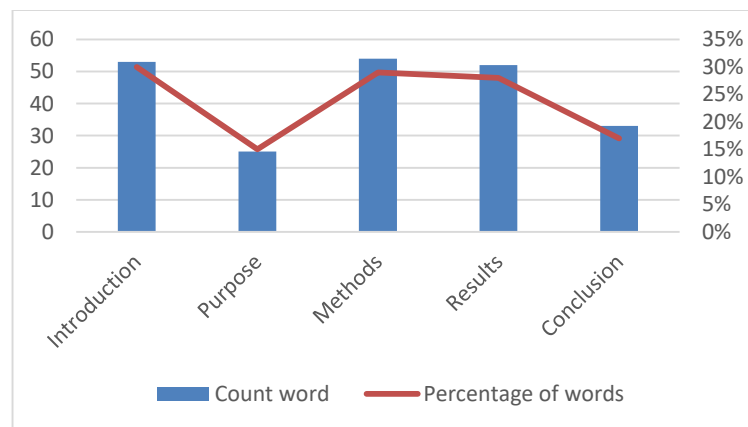
Moves	Number of the article, total number of words by article, number and percentage of words by move, and moves order and rank																								Average based on occurrence	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
	250	192	253	164	191	195	199	161	148	84	183	200	161	191	154	116	200	193	175	189	199	194	198	194	183	
Introduction	42	36	86	0	0	0	79	77	81	30	60	27	35	0	34	0	74	54	21	0	32	70	67	0	53	
	17%	19%	34%	0%	0%	0%	40%	48%	55%	36%	33%	13.5%	22%	0%	22%	0%	37%	28%	12%	0%	16%	36%	34%	0%	30%	
Purpose	29	33	7	24	21	23	52	22	47	19	21	13	4	15	15	40	47	30	39	22	31	29	12	15	25	
	11%	17%	3%	15%	11%	12%	26%	13%	32%	23%	12%	6.5%	2%	8%	10%	35%	23.5%	16%	22%	12%	15.5%	15%	6%	8%	15%	
Methods	102	29	50	123	73	73	39	35	20	8	31	59	54	127	11	56	20	27	47	61	52	62	56	80	54	
	41%	15%	20%	75%	38%	37%	20%	22%	13%	9%	17%	29.5%	33%	66%	7%	48%	10%	14%	27%	32%	26%	32%	28%	41%	29%	
Results	77	52	55	17	97	78	0	27	0	27	52	63	46	17	33	20	59	82	48	78	84	33	41	61	52	
	31%	27%	21.5%	10%	51%	40%	0%	17%	0%	32%	28%	31.5%	29%	9%	21%	17%	29.5%	42%	27.5%	41%	42.5%	17%	21%	31%	28%	
Conclusion	0	42	55	0	0	21	29	0	0	0	19	38	22	32	61	0	0	0	20	28	0	0	22	38	33	
	0%	22%	21.5%	0%	0%	11%	14%	0%	0%	0%	10%	19%	14%	17%	40%	0%	0%	0%	11.5%	15%	0%	0%	11%	20%	17%	
Moves order based on number of words (from highest to lowest)	M>R>I>P>M	R>C>I>P>M	I>R>C>M>P	M>R>P	R>M>P	R>M>P>C	I>P>M>C	I>P>M	I>R>M	I>R>M>C	R>M>C>P	M>R>I>C>P	M>R>C>I>P	C>I>R>P>M	M>I>R>P>M	M>I>R>P>M	I>R>P>M	R>M>P>C	R>M>P>C	R>M>P>C	R>M>P>C	I>R>P>M	R>P>M>C	M>R>C>P	M>R>C>P	I>M>R>P>C
Rank of the move by number of words	1	M	R	I	M	R	R	I	I	I	I	I	R	M	M	C	M	I	R	R	R	R	I	I	M	I (9: 37.5%), R (8: 33.5%), M (6: 25%), C (1: 4%)
	2	R	C	R	C	P	M	M	P	M	P	R	R	M	R	C	I	P	R	I	M	M	M	M	R	M (9: 36%), R (7: 28%), P (4: 16%), C (3: 12%), I (2: 8%),
	3	I	I	M	R	P	P	M	R	M	P	M	C	I	R	R	R	P	P	P	C	I	R	R	C	R (7: 35%), P (6: 30%), I (4: 20%), C (3: 15%)
	4	P	P	P	/	/	C	C	P	/	M	P	I	C	P	P	/	M	M	I	P	P	P	C	P	P (11: 55%), C (4: 20%), M (3: 15%), I (2: 10%)
	5	/	M	/	/	/	/	/	/	/	C	P	P	/	M	/	/	/	/	C	/	/	/	P	/	P (3: 43%), M (2: 28.5%), C (2: 28.5)

This table indicates the results of the textual space analysis.

Reading table 5.2, the average of words indicates that the Introduction move holds the highest words percentage, followed by the Methods and the Results moves, while the Conclusion and Purpose are moves which hold the lowest number of words. The pattern of I>M>R>C>P is the deduced moves order/arrangement based on the frequency of word usage, which is confirmed by the rank of moves based on the words number, where the Introduction is ranked the first, followed by Method, Results, and Conclusion. The Purpose move ranked the last move with lowest number of words.

Writing an abstract in architectural heritage evolve through the five moves as in figure 5.3:

Figure 5.3. Evolution of the average number and percentage of words through the five moves



This figure shows the evolution of the average word count through the five moves.

Regarding Figure 5.3, in the context of writing an abstract for architectural heritage studies, it is important to follow a structured approach. Beginning with a high number of words in the introduction is important as it sets the stage by presenting the issue and preparing the reader to understand the background context of the study. After establishing the context, the purpose of the study should be succinctly stated to avoid distracting the reader and to clearly direct their attention towards the goal of the research. Next, the methods used and the results obtained should be elaborated upon with a greater number of words to provide a comprehensive understanding of the research process and findings. Finally, the conclusion should be concise, containing a low number of words, to offer the reader a clear and succinct understanding of the paper's overall contributions and implications.

Compared to the previous studies, some details can be discussed as follows:

- Introduction move: It defines the scope of the study and prepares readers providing background to spark inquiry and fill gaps. Contrary to what Arsyad et al. (2023) and Darabad (2016) reached, that the Introduction is the least frequent move in selected abstracts, in this study the first move with the highest words percentage is the Introduction, as it is the first part that provides context for the research and suggests topics that require additional investigation, as observed by Hyland (2000, 2004) and Swales (1990). This result aligns with the study results of Martin (2002) and ElSerty (2024) on abstracts selected from the English for Academic Purposes (EAP) journals. Regarding its core status with highest number of words, Introduction in Architectural Heritage RA abstracts is *“considered part of an appropriate and acceptable genre exemplar”* (Hüttner, 2010, p.205).
- Purpose move: Bonsu & Afful (2022) mentioned that Saidi and Talebi (2021) divided the purpose move into two separate types. The first, known as the purposive form, uses emotive language like ‘the purpose of’, ‘the aim of’, and ‘the goal of’. The second is the descriptive form, emphasizes study aspects and outlines key aims, using phrases such as ‘we extend’ and ‘this work presents’. Like what some researchers found, such as ElSerty (2024) in abstracts selected from the Arabic for Academic Purposes (AAP) journals and Cross & Oppenheim (2006), in this study the Purpose, despite its low number of words, the Purpose remains an obligatory move in Architectural Heritage RA abstracts as it elaborates on the objectives and what the researcher aspires to accomplish.
- Methods move: This section describes the precise procedures used to study the research issue or problem. This section summarizes the methodology, processes, and analytical frameworks used to collect and analyze data, giving readers an understanding of the study and methodological base. This means that the Method section is an obligatory move in Architectural Heritage RA abstracts because the comparison indicates that all selected abstracts in this study contain it with a high number of words, aligned with many studies such as Arsyad et al. (2023), Bonsu & Afful (2022), Cross & Oppenheim (2006), Lorés (2004), which are summarized in Appendix 1.

- Results move: Abstracts clearly convey the research's key findings and accomplishments in the Results move. They summarize the study's important findings and statistics, providing a picture of its effect and relevance. This part is important for readers to rapidly comprehend the substance and significance of the study without diving into the entire article. Similar to what many researchers found, such as Imsa-ard (2021), Pho (2008), Hyland (2004), and Martin (2002) in English abstracts versus Spanish abstracts, Results move in this study dealing with Architectural Heritage RA abstracts, can be considered as an obligatory move, regarding its high frequency and the high number of words.

- Conclusion move: Conclusions in abstracts summarize the study findings' consequences and relevance. They emphasize the study's overall influence, practical implications, or theoretical developments. This section gives readers a clear sense of the study's contribution and significance to the area. In this study, Conclusion in Architectural Heritage RA abstracts is “*considered part of an appropriate and acceptable genre exemplar*” (Hüttner, 2010, p.205), but it comes in the second place in terms of importance compared to the introduction. This finding opposes the findings of Arsyad (2023), and Saidi & Talebi (2021), but aligned with the findings of Martin (2002).

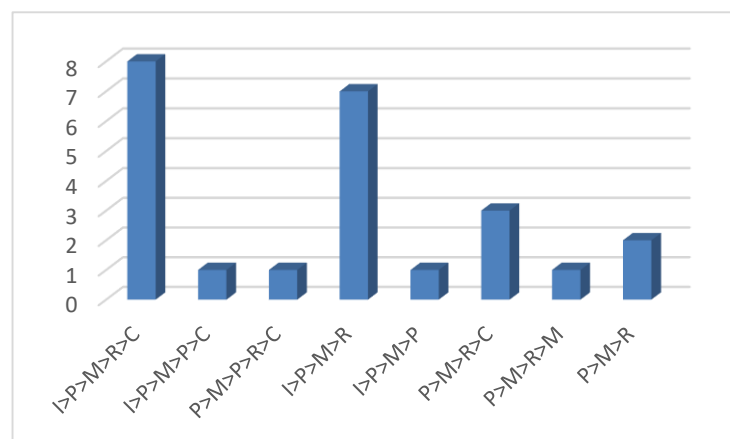
The set of the moves above is called sequences. Sequences of moves in research paper abstracts relate to the organized progression of the given material. These steps aid in the organization of the abstract, allowing it to effectively express the study's key findings.

The frequencies of sequences and linearity patterns (referring to Malawi (2017)) of moves found in the abstracts with percentages are detailed in table 5.3 and the figures 5.4 and 5.5:

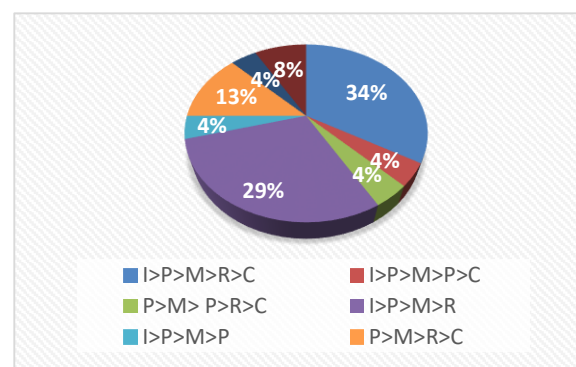
Table 5.3. Sequences of moves found in the abstracts with percentages

Sequences of moves	Linearity patterns	Frequency	Percentage
I>P>M>R>C	Completely linear patterns	8	33.33%
I>P>M>P>C	Cyclical patterns	1	04.17%
P>M>P>R>C	Cyclical patterns	1	04.17%
I>P>M>R	Completely linear patterns	7	29.16%
I>P>M>P	Cyclical patterns	1	04.17%
P>M>R>C	Completely linear patterns	3	12.50%
P>M>R>M	Cyclical patterns	1	04.17%
P>M>R	Completely linear patterns	2	08.33%

This table indicates the frequency of moves sequences and linearity patterns in the analyzed abstracts with percentages.

Figure 5.4. Sequences of moves found in the abstracts using bar chart

This figure shows the frequency of moves sequences in the analyzed abstracts using bar chart.

Figure 5.5. Percentages of sequences of moves found in the abstracts using pie chart

This figure shows the percentages of moves sequences in the analyzed abstracts using pie chart.

To understand the rhetorical structure of the sequence of moves, the study identified eight (8) distinct sequences, as illustrated in Table 5.3, in addition to Figure 5.4 and 5.5, which present the hierarchical patterns order of these moves along with their respective frequencies with percentages.

The most preferred and dominant sequence of moves in International Journal of Architectural Heritage was the five-step sequencing (I>P>M>R>C), which occurred 8 times (33.33%), followed by four-step sequencing (I>P>M>R), occurred 7 times (29.16%), happened without the "Conclusion" move. Then, other six sequencings occurred between 3 and 1 time (Between 12.5% and 4.17%), and skipped one or two of these moves: the "Introduction", "Results", or "Conclusion". "Background" move (considered as an "Introduction" and "Purpose"), Methods, and Results" (I>P>M>R), which is the sequence of moves suggested by Taylor and Francis exists in less than one-third of the analyzed abstracts despite the journal's recommendation to follow this sequence.

Therefore, the most common sequence of moves in Architectural Heritage RA abstracts was I>P>M>R>C, which revealed in this study, followed by I>P>M>R, aligned to the results of Bonsu & Afful (2022), and Hyland (2000). The second most used sequence was suggested by Taylor and Francis (I>P>M>R), but it was only used in less than 30% of the abstracts. Compared to the studies of Ning (2008) and Darabad (2016), which indicate the dominance of Bhatia's model (1993) (P>M>R>C).

Malawi (2017) classifies sequencing into four categories based on linearity: entirely linear, semi-linear, non-linear, and circular. Therefore, according to Malawi's categorization, 83.32% of the moves sequences are considered completely linear patterns, and 16.68% of the moves sequences are considered cyclical patterns. It means that the majority of the moves sequences are considered completely linear patterns referring to Malawi (2017) categorization of linearity. In terms of textual space, the recognized order of moves relies on word count, commonly used in Architectural Heritage RA abstracts, is I>M>R>C>P.

Micro level analysis

The following table identifies the frequency of different variables of all analyzed abstracts:

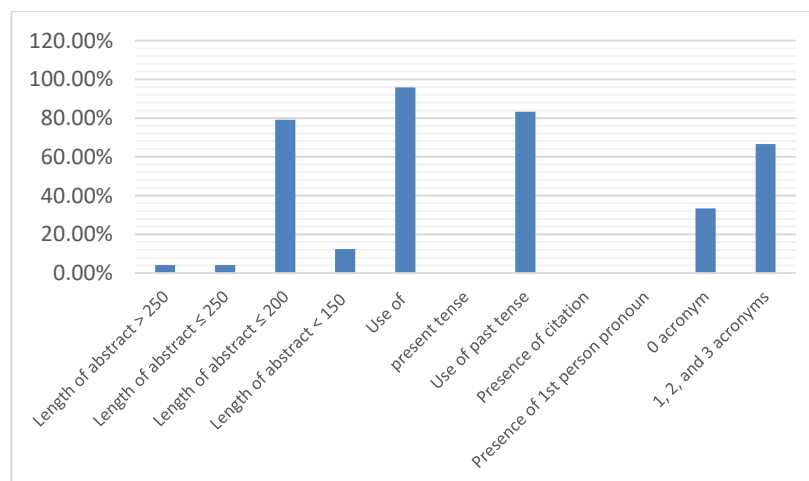
Table 5.4. Total frequency of micro analysis variables of all analyzed abstracts

Variables		Frequency	Percentage
Length of abstract	> 250	1 (253)	04.17%
	≤ 250	1 (250)	04.17%
	≤ 200	19 (192+164+191+195+199+161+183+200+161+191+154+200+193+175+189+199+194+198+194=3533)	79.16%
	< 150	3 (148+84+116=348)	12.50%
Use of tense	Present tense	23 (10+10+3+8+0+15+7+10+8+5+8+9+2+12+7+3+9+11+10+6+4+10+10+12=189)	95.83%
	Past tense	20 (10+0+15+0+12+0+2+2+3+1+6+2+10+3+1+4+13+4+2+2+10+1+1+0=104)	83.33%
Presence of any citation	Integral citation	0	0%
	Non-integral citation	0	0%
Presence of 1 st person pronoun	I	0	0%
	We	0	0%
Acronyms	0 acronym	8	33.33%
	1 acronym	9 (7+4+1+1+1+1+1+1)	37.50%
	2 acronyms	6 ((5+5)+(1+1)+(2+1)+(3+1)+(2+3)+(1+1))	25%
	3 acronyms	1 (1+4+4)	04.17%

This table indicates the frequency of all variables related to the micro level analysis of all abstracts (length of abstracts, use of tense, presence of any citation, presence of 1st person pronoun, and the use of acronyms).

The following figure represents the percentage of different variables of all analyzed abstracts:

Figure 5.6. Percentages of variables of the micro level analysis



This figure shows the percentages of variables of the analyzed abstracts using bar chart.

Regarding table 5.4 and figure 5.6, 79.16% of the abstracts were written with a length which ranges between 150 and 200 words; with an average of words number in all abstracts equals 183 words. Abstract 10 is the shortest abstract that contains 84 words which is seems precisely technical in nature, while abstract 3 is the longest one that contains 253 words, which is an in-depth historical research and analysis of data. This indicates that the word count in abstracts is determined by the nature of the research and its scope (empirical, descriptive, historical, etc). This is confirmed by Bhatti et al. (2019) who stated that: “*This variation in the length of abstract in the two disciplines shows that the linguistics abstracts needs more explanation than the literature abstract. This is may be due the fact that the linguistics abstracts include more technicalities than the literature abstracts. On the other hand, literature abstracts are only providing the information in a brief manner*”.

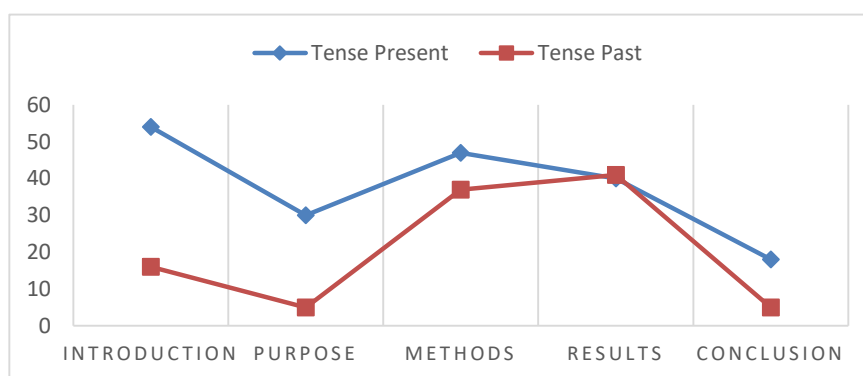
For more details about tenses (Present and Past), this study interprets deep results through table 5.5, which represent the tense frequency in each move by abstract, and figure 5.7, which represents the evolution of the tense frequency use depending the move:

Table 5.5. Tenses frequency in each move by abstract

Moves	Tense	
	Present	Past
Introduction	2+2+2+0+0+0+5+6+5+2+4+3+ 2+0+2+0+7+2+1+0+2+4+3+0 =54	3+0+4+0+0+0+0+2+3+0+0+0+ 0+0+0+0+1+2+0+0+0+0+1+0 =16
Purpose	1+1+0+1+0+1+1+2+2+1+1+1+ 0+1+2+3+1+4+2+1+1+2+1+0 =30	0+0+0+0+0+0+1+0+0+1+0+0+ 0+0+0+0+3+0+0+0+0+0+0+0 =5
Methods	3+1+0+6+0+8+1+2+1+0+0+1+ 0+8+0+0+0+1+3+1+1+3+3+4 =47	5+0+6+0+6+0+1+0+0+0+2+2+ 6+0+0+2+2+0+1+1+1+1+0+0 =36
Results	4+4+1+1+0+4+0+0+0+2+2+3+ 0+0+1+0+1+4+3+3+0+1+2+4 =40	2+0+3+0+6+0+0+0+0+0+4+0+ 3+2+0+1+8+2+1+1+9+0+0+0 =42
Conclusion	0+2+0+0+0+2+0+0+0+0+1+1+ 0+3+2+0+0+0+1+1+0+0+1+4 =18	0+0+2+0+0+0+0+0+0+0+0+0+ 1+1+1+0+0+0+0+0+0+0+0+0 =5
Total	189	104
Percentage	65%	36%

This table indicates the frequency of present and past tense in each move, and their total.

Figure 5.7. Evolution of the tense frequency use depending the move



This figure shows the percentages of variables of the analyzed abstracts using bar chart.

As far as the use of tense in abstracts is concerned, tables 5.4 and 5.5 show that the majority of abstracts use both present and past tense, with the present tense being more dominant. Figure 5.7 illustrates the importance of adhering to a structured approach when writing an abstract for architectural heritage studies. The present and past tenses are used more frequently in the Introduction, Methods, and Results moves, while they are less common in the Purpose and Conclusion sections. The use of present and past tenses is nearly equal in the Methods move and approximately equal in the Results move.

The present and past tense are used in different moves for various reasons. Present tense is used in the Introduction move to describe the present state of knowledge and issues, or proven facts in the subject; in the Purpose move to describe and emphasize the study's aims that are significant; in the Methods move to present the methods or techniques used in the study regarding the actual circumstances; in the Results move to state the current main findings of the research; and in the Conclusion move to recommend the significance and current applicability of findings. Past tense is used in the Introduction move to state previous facts of research that are related to the study; rarely in the Purpose move to emphasize a goal of research; in many abstract RAs in the Methods move to give a concise and chronological explanation of the procedure followed during the research; widely in the Results move to represent the findings reached or outcomes derived from the study; and rarely in the Conclusion move to remind the importance and significance of the subject.

Other important results were found regarding figure 5.6, specifically the non-existence of either integral citation or non-integral citation in all analyzed abstracts. Additionally, none of the researchers used the first-person pronoun in composing their abstracts. Finally, table 5.4 and figure 5.6 show that two-thirds of the analyzed articles used between one to three acronyms, each of which appeared one or several times.

Compared to previous studies, some of their findings align with the results of the present study, while others do not. Regarding the use of tense and acronyms, the findings of ElSerty (2024), Bonsu & Afful (2022), Imsa-ard (2021), and Bhatti et al. (2019) on the omission of the first-person pronoun align with this study. However, other variables such as the length of abstracts and the use of citations do not align. Imsa-ard (2021) found that 50% of abstracts were less than 150 words, while Bhatti et al. (2019) found that 70% of linguistic abstracts were less than 250 words. Regarding citations, Imsa-ard (2021) found that citations accounted for 37% of the content, and Bhatti et al. (2019) found that citations accounted for 30% in linguistic abstracts and 95% in literature abstracts. In architectural heritage RA abstracts, the use of citations and the first-person pronoun is avoided to ensure objectivity and maintain a distant voice, thereby preventing bias. This point is supported by Ning (2008), who stated that "*researchers in hard science tend to adopt a less personal style in order to strengthen the objectivity of their study.*"

This study found that 66.67% of analyzed articles from the International Journal of Architectural Heritage used acronyms representing various elements. These included approaches or methods (such as FAHP and CEPI), tools (such as VT, GIS, and IFC), techniques and technologies (such as DMTs, ICT, 2D and 3D, IBM, CNN, and VPL), materials (such as FRGPs, FRP, PC, and QLs), and other acronyms (such as Si-O-Si, SNCF, and Z). Bhatti et al. (2019) found that 65% of linguistics abstracts included acronyms, compared to only 10% of literature abstracts, often representing research tools (such as SPSS, FLSAS, MANOVA), tests (like IELTS), and languages (such as EFL, L1, L2).

Conclusion

In conclusion, the genre analysis of the 24 abstracts selected from the International Journal of Architectural Heritage revealed vital insights into the rhetorical structure used in this specialist subject. After careful investigation, the five moves inherent in each abstract have emerged as important components, revealing the process from introduction to conclusion. The demarcation of textual space has highlighted the importance of brief yet thorough articulation within the constraints of abstracts. Furthermore, linguistic features analysis has shed light on the delicate language choices used to effectively communicate complicated architectural concepts. This investigation not only broadens our understanding of genre standards in architectural discourse, but it also lays the groundwork for future research and development in the discipline. As researchers continue to engage with these discoveries, the discourse on architectural heritage will benefit from more clarity, coherence, and communicative efficacy.

General Conclusion

A summary of the study

This present work delves into the complex area of genre analysis within the framework of English for Academic purposes, namely English for academic writing and publication. The sample study is 24 abstracts from the International Journal of Architectural Heritage. The study sought to identify the similarities and differences in abstract writing patterns among architectural heritage authors via thorough evaluation at both levels; the macro and micro levels. At the macro level, the study focused on identifying genre patterns and moves followed in abstracts. The findings demonstrate a discernible framework consisting of a move sequence involving introduction, purpose, methods, results, and conclusion. However, trivial differences were found, indicating authors' individual preferences and disciplinary impacts. On a micro level, linguistic traits were examined to identify subtleties in language use in architectural heritage field. While some features are recognized such as the use of technical vocabulary using different acronyms due to the topic specificity, language choices, or communicative intents.

Two hypotheses were set for this study. The first one stated that there are differences and similarities in abstract writing structure among architectural heritage scholars at two levels. The second hypothesis is based on the assumption that the selected abstracts follow the four moves recommended by the Taylor & Francis database or extend beyond them. The study emphasizes the dynamic interaction between standardized conventions and individual choices. The study revealed that most abstracts on the macro level adopt the model of Can et al.'s (2016) framework, which is based on Pho's (2008) framework adapted from Dos Santos' (1996) and Hyland's (2004) five-move pattern, with a minor alternative of the discussion move to the Conclusion move. This finding confirmed the first hypothesis. The sequences of moves have been strengthened by the classification of categories, which is suggested by Malawi (2017), which is based on linearity. At the micro level, most of the analyzed abstracts in this study adopt the model of Swales & Feak (2009), which is based on different variables related to the linguistic features, such as length of abstract, use of tense, presence of any citation, 1st person pronoun, and acronyms.

Confirming or refuting hypotheses regarding the obtained results

The hypothesis which assumes that there are differences and similarities between the selected abstracts is confirmed, with supremacy of similarities over differences.

As far as the second hypothesis is concerned, it states that the twenty-four abstracts extend beyond four moves recommended by Taylor & Francis database. Starting with the differences, at the macro level, the abstracts do not only contain a four to five-move pattern, but they range between three to five moves with different textual spaces, and they do not only occurred with one status, but with two statuses. Neither one sequence of move, nor one pattern of linearity which characterize the selected abstracts, but eight sequences of moves and two patterns of linearity make the differences. At the micro level, despite the dominance of similarities, there are some differences in word count, tense and the use of acronyms.

When it comes to the similarities, at the macro level, over half of the abstracts contain five moves pattern (Introduction, Purpose, Methods, Results, and conclusion) in which the Purpose, Methods, and Results moves are considered as obligatory moves. Introduction and Conclusion are considered as core moves. The recognized sequence of moves based on word count (referred to as textual space) which is more frequently used is the sequence of I>M>R>C>P. The most favored sequence of moves in the chosen journal was the five-step sequence (I>P>M>R>C), followed by another four-step sequence (I>P>M>R) without the "Conclusion" move. Although the recommended sequence of moves by Taylor and Francis is (I>P>M>R), it appeared only in less than 30% of the selected abstracts. At the micro level, based on the linguistic features mentioned by Swales and feak (2009), the results of this study revealed that most of the selected articles used the abstract length of less or equals to 200 words (the average equals 183 words) regarding the nature of the field. In addition, present and past tense were used with the dominance of the present tense, while the acronyms are used according to the demands of the manuscript topic. What all the analyzed abstracts have in common is the absence of citations and 1st person pronouns which reflect one major aspect of the scientific publication's rigor which is objectivity in academic writing.

Implications of the study

These findings have significant implications for architectural heritage researchers, practitioners, and educators. Understanding the underlying patterns and differences in abstract writing allows academics to enhance their written communication skills, foster multidisciplinary conversations, and increase knowledge in architectural heritage studies. These advantages help researchers be genre-conscious and enable them to craft effective abstracts of articles to be published in highly recognized journals, which maximize their visibility and increase their academic reputation as contributing authors in the field of architectural heritage.

Limitation and Contribution of the study

Despite the limited number of the analyzed abstracts (twenty-four abstracts) selected from one journal, published during eight months, without considering the culture of authors, and their native language, this research contributes to the growing literature on genre analysis and academic discourse in the realm of architectural heritage. By shedding light on the subtle dynamics of abstract writing, it becomes an invaluable resource for researchers, practitioners, and educators seeking to negotiate the intricacies of academic communication in a globalized world.

Recommendations of the study and call for further research

Based on the finding of this study, it is recommended that authors pay high attention to the recommended/imposed abstract templates by data bases and their corresponding journals in order to compose manuscripts having abstracts that meet the requirements and rigor of the scientific publication's community. It is also recommended that authors of architectural heritage increase their awareness of the existing abstract patterns and the difference in their moves and sequences besides their linguistic characteristics to maintain the norms of abstract writing. Future research initiatives may broaden the area of study to include a wider number of publications and disciplinary contexts. Furthermore, comparative research across languages and cultural contexts may provide more insight into the impact of socio-cultural elements on abstract writing behaviors and practices.

List of References

List of References

- Afful, J. B. A. (2016). A genre study of undergraduate dissertation acknowledgements in a Ghanaian university. *ESP Today*, 4(2), 202-224. In Bonsu, E. M., & Afful, J. B. A. (2022). Genre Analysis of Abstracts of Research Articles Published in Biostatistics. *International Journal of Literature, Language and Linguistics*, 5(1), 17-38. <https://doi.org/10.52589/IJLLL-A94THVEW>
- Amairi, H. (2012). *Move Analysis of Journal Research Articles Abstracts: The Case of Applied Linguistics and Language Learning & Technology*. A dissertation of 'Magister' Degree in Applied Linguistics and ESP. University Abdelhamid Ibn Badis– Mostaganem.
- An, R., Yuan, J., Pan, Y., & You, W. (2023). Experimental and Parametric Study on Rotational Performance of Through-Tenon Joints in Traditional Timber Structures. *International Journal of Architectural Heritage*, 1–20. <https://doi.org/10.1080/15583058.2023.2284745>
- Anthony, L. (2003). *AntMover (Version 1.1.0) [Computer Software]*. Tokyo, Japan: Waseda University. <http://www.laurenceanthony.net/software>
- Arianto, M. A., Saukah, A., Basthomi, Y., & Wulyani, A. N. (2021). Previous studies have several limitations ...: Indonesian doctoral students', Indonesian academics', and international authors' research gap strategies in ELT research article abstracts and introductions. *Journal of Language and Education*, 7(2), 25-44.
- Arias Tapiero, J. C., Graus, S., Khei, S., Silva, D., Conde, O., Ferreira, T. M., ... Vasconcelos, G. (2024). An ICT-Enhanced Methodology for the Characterization of Vernacular Built Heritage at a Regional Scale. *International Journal of Architectural Heritage*, 1–19. <https://doi.org/10.1080/15583058.2024.2320862>
- Ariyanfar, S., & Mitchell, R. (2020). Teaching writing skills through genre: Applying the genre-based approach in Iran. *International Research Journal of Management, IT and Social Sciences*, 7(1), 242-257. <https://doi.org/10.21744/irjmis.v7n1.843>
- Arsyad, S., Madani, Pratiwi, V. A., An-Nashir, A. Z., Erviona, L., Hasiyanti, H., & Marjelina, O. (2023). The rhetorical structure and research gap strategies in journal article abstracts in language-related fields published in high-impact international journals. *LEARN Journal: Language Education and Acquisition Research Network*, 16(1), 703-725.
- Bartolini, G., Giuliani, F., & De Falco, A. (2023). Proof of Concept for Methodological Framework Including Point Clouds in the Non-Destructive Diagnosis of Historical Masonry Structures. *International Journal of Architectural Heritage*, 1–24. <https://doi.org/10.1080/15583058.2023.2260769>

Bawarshi, A., & Reiff, M. J. (2010). *Genre: An Introduction to History, Theory, Research, and Pedagogy*. Indiana: Parlor Press.

Bazerman, C. (2004). *Speech acts, genres, and activity systems: How texts organize activity and people*. In *What writing does and how it does it: An introduction to analyzing texts and textual practices* (pp. 309-339). Routledge.

Bazerman, C. (1994). *Systems of genres and the enactment of social intentions*. In *Genre and the New Rhetoric* (pp. 79-101). London: Taylor and Francis.

Benesch, Sarah. (2001). *Critical English for academic purposes*. NJ: Lawrence Erlbaum Associates Inc. In Gopal, P. P. (2019). *English for Academic Purposes: Theory, Trends and Practices. Education and Development. CERID/TU*. 1-14.

Bhatia, V. K. (1993). *Analyzing Genre: Language Use in Professional Settings*. Longman. <https://books.google.co.ls/books?id=tSisAgAAQBAJ&printsec=frontcover&hl=ar#v=onepage&q&f=false>. In Amairi, H. (2012). *Move Analysis of Journal Research Articles Abstracts: The Case of Applied Linguistics and Language Learning & Technology*. A dissertation of 'Magister' Degree in Applied Linguistics and ESP. University Abdelhamid Ibn Badis– Mostaganem.

Bhatti, I. A., Mustafa, S. & Azher, M. (2019). Genre Analysis of Research Article Abstracts in Linguistics and Literature: A Cross Disciplinary Study. *International Journal of English Linguistics*, 9(4), 42-50. <https://doi.org/10.5539/ijel.v9n4p42> Cross, C. & Oppenheim, C. (2006). A Genre Analysis of Scientific Abstracts. *Journal of Documentation*, 62(4), 428-446. <https://doi.org/10.1108/00220410610700953>

Biber, D., & Conrad, S. (2009). *Register, genre, and style*. Cambridge: Cambridge University Press.

Bonsu, E. M., & Afful, J. B. A. (2022). Genre Analysis of Abstracts of Research Articles Published in Biostatistics. *International Journal of Literature, Language and Linguistics*, 5(1), 17-38. <https://doi.org/10.52589/IJLLL-A94THVEW>

Booth, W. C., Colomb, G. G., & Williams, J. M. (2003). *The Craft of Research, 2nd Edition*. Chicago: University of Chicago Press.

Bourgeois, I., Ascensão, G., Ferreira, V., & Rodrigues, H. (2024). Methodology for the Application of 3D Technologies for the Conservation and Recovery of Built Heritage Elements. *International Journal of Architectural Heritage*, 1–12. <https://doi.org/10.1080/15583058.2024.2341327>

Can, S., Karabacak, E., & Qin, J. (2016). Structure of Moves in Research Article Abstracts in Applied Linguistics. *Publications*, 4(3, 23), 1-16. <https://doi.org/10.3390/publications4030023>

Chen, D., Sun, D., & Lin, Y. (2024). Preservation or Revitalization? Examining the Conservation Status and Destructive Mechanisms of Tulou Heritage in Raoping, Chaozhou, China. *International Journal of Architectural Heritage*, 1–16. <https://doi.org/10.1080/15583058.2023.2299473>

Cheung, D. & Irene, W. (1988). *The communication skills and ESP interface: The course at the Nanyang Technological Institute*. Singapore. In Gopal, P. P. (2019). English for Academic Purposes: Theory, Trends and Practices. *Education and Development. CERID/TU*. 1-14.

Council of Europe. (1985). Convention for the Protection of the Architectural Heritage of Europe. Granada. *European Treaty Series - No. 121*.

Danes, F. (1974). Functional sentence perspective and the organisation of the text. In F. Danes (Ed.), *Papers in functional sentence perspective*, 106–128. Prague: Academia. In Lorés, R. (2004). On RA abstracts: from rhetorical structure to thematic organization. *English for Specific Purposes*, 23, 280-302.

Darabad, A. M. (2016). Move Analysis of Research Article Abstracts: A Cross-Disciplinary Study. *International Journal of Linguistics*, 8(2), 125-140. <http://dx.doi.org/10.5296/ijl.v8i2.9379>

de Lourdes Ferreira Minervino, B., Calmeiro, C. C., Von Kruguer, P. G., & Rodrigues, J. P. C. (2024). Fire Risk Analysis: A Proposal for Historic Buildings in Brazil. *International Journal of Architectural Heritage*, 1–9. <https://doi.org/10.1080/15583058.2024.2308512>

Dewi, N. S. N., & Harmawan, V. (2022). Genre Analysis of Research Abstract: A Literature Review. *TLEMC (Teaching & Learning English in Multicultural Contexts)*, 6(2), 123-130.

Dos Santos, M. B. (1996). The textual organization of research paper abstracts in applied linguistics. *Text* 16(4), 481–499. <http://dx.doi.org/10.1515/text.1.1996.16.4.481>. In Amairi, H. (2012). *Move Analysis of Journal Research Articles Abstracts: The Case of Applied Linguistics and Language Learning & Technology*. A dissertation of ‘Magister’ Degree in Applied Linguistics and ESP. University Abdelhamid Ibn Badis– Mostaganem.

Dudley-Evans, T. (1986). *Genre Analysis: An Investigation of the Introduction and Discussion Sections of MSc. Dissertations*. ESP Collection. No. 3.5H/16. In Martín, P. M. (2002). A Genre-Based Investigation of Abstract Writing in English and Spanish. *Revista Canaria De Estudios Ingleses*, 44, 47-64.

Dudley-Evans, T., & St John, M. J. (1998). *Developments in English for Specific Purposes: A Multi-Disciplinary Approach*. Cambridge: Cambridge University Press.

Dursun, F., Oğuz-Kırca, E. D., Toprak, V., & Coşkun, A. (2023). Reconstruction of an Ancient Hill Used as an On-Site Quarry: Castrum Zerzevan (SE-Türkiye). *International Journal of Architectural Heritage*, 1–19. <https://doi.org/10.1080/15583058.2023.2268015>

Durrant, P., & Mathews-Aydınlı, J. (2011). A function-first approach to identifying formulaic language in academic writing. *English for Specific Purposes*, 30, 58–72.

Drougkas, A., Sarhosis, V., Macente, A., Basheer, M., D'Alessandro, A., & Ubertini, F. (2023). Mechanical and Durability Testing and XCT Imaging of a Lime-Based Micro-Scale Modified Smart Intervention Mortar. *International Journal of Architectural Heritage*, 1–16. <https://doi.org/10.1080/15583058.2023.2278067>

Eggins, S. (2004). *Introduction to systemic functional linguistics* (2nd ed.). London: Continuum. In Bonsu, E. M., & Afful, J. B. A. (2022). Genre Analysis of Abstracts of Research Articles Published in Biostatistics. *International Journal of Literature, Language and Linguistics*, 5(1), 17-38. <https://doi.org/10.52589/IJLLL-A94THVEW>

ElSerty, L. (2024). Genre Analysis of the Abstracts of EAP and AAP Journal Articles: A Comparative Study with Pedagogical Implications (Research article). *Journal of Academic Perspectives*, 2024(1), 22-40.

Endres-Niggemeyer, B., Maier, E., & Sigel, A. (1995). How to implement a naturalistic model of abstracting: four core working steps of an expert abstractor. *Information Processing and Management*, 31(5), 631-674. In Cross, C. & Oppenheim, C. (2006). A Genre Analysis of Scientific Abstracts. *Journal of Documentation*, 62(4), 428-446. <https://doi.org/10.1108/00220410610700953>

Engeström, Y. (2000). Activity Theory as a Framework for Analyzing and Redesigning Work. *Ergonomics*, 43(7), 960-974.

Fleiss, J. L. (1981). *Statistical methods for rates and proportions*. New York: Wiley. In Insa-ard, P. (2021). Genre Analysis of Research Article Abstracts in Language Education and Acquisition Research. *International Journal of Humanities and Social Sciences*, 11(2), 74-98.

Flowerdew, J., & Peacock, M. (eds) (2001). *Research perspectives on English for Academic Purposes*. Cambridge: Cambridge University Press.

Flowerdew, L. (2022). Application of Swalesian genre analysis to academic writing pedagogy: A corpus perspective. *LEARN Journal: Language Education and Acquisition Research Network*, 15(1), 1-9.

Franz, H., Rinke, M., Martin, J. L., Chataigner, S., & Dieng, L. (2023). French Metallic Train Sheds of 1850 to 1930: Structural Specificities and the Evolution of the Restoration Practices. *International Journal of Architectural Heritage*, 1–23. <https://doi.org/10.1080/15583058.2023.2272132>

Frey, O & Kaplan ,T. (2010). *Legal Research Article Abstracts: Text Analysis and Text Transformation*. Germany: Auflage. In Amairi, H. (2012). *Move Analysis of Journal Research Articles Abstracts: The Case of Applied Linguistics and Language Learning & Technology*. A dissertation of 'Magister' Degree in Applied Linguistics and ESP. University Abdelhamid Ibn Badis– Mostaganem.

Fries, P. H. (1983). On the status of Theme in English: Arguments from discourse. In J. S. Petofi & E. Sozer (Eds.), *Micro and macro connexity of texts*, 116–152. Hamburg: H. Buske. In Lorés, R. (2004). On RA abstracts: from rhetorical structure to thematic organization. *English for Specific Purposes*, 23, 280-302.

Fries, P. H. (1995a). Themes, methods of development, and texts. In R. Hasan & P. H. Fries (Eds.), *Current issues in linguistic theory*, 118. On subject and theme. *A discourse functional perspective*, 317–359. Amsterdam: John Benjamins. In Lorés, R. (2004). On RA abstracts: from rhetorical structure to thematic organization. *English for Specific Purposes*, 23, 280-302.

Fries, P. H. (1995b). A personal view of theme. In M. Ghadessy (Ed.), *Thematic development in English texts*, 1–19. London: Pinter. In Lorés, R. (2004). On RA abstracts: from rhetorical structure to thematic organization. *English for Specific Purposes*, 23, 280-302.

Garbin, E., Panizza, M., Natali, M. S., Artioli, G., & Tamburini, S. (2023). Fibre-Reinforced Geopolymers (FRGPs) as Inorganic Composites for Flexural Strengthening of Brick Masonry. *International Journal of Architectural Heritage*, 1–18. <https://doi.org/10.1080/15583058.2023.2285853>

Gee, J. P. (1999). *An introduction to discourse analysis: Theory and method*. New York and London: Routledge.

Gómez-Robles, L., & Melica, D. (2024). Characterisation and Contextualisation of Mortars from the 19th and First Half of the 20th Centuries in Muharraq, Bahrain. *International Journal of Architectural Heritage*, 1–22. <https://doi.org/10.1080/15583058.2024.2325469>

Guo, Q., Huang, J., Pei, Q., Zhang, B., Zhan, H., Zhang, H., ... Viles, H. (2023). Erosion Model for Wind-Blown Sand Flow at Earthen Sites in Arid Environment, Northwest China. *International Journal of Architectural Heritage*, 1–16. <https://doi.org/10.1080/15583058.2023.2267506>

Halliday, M. A. K. (1973). On the Notion of 'Function' in Linguistics. *Part 1, Language*, 49(1), 57-68.

Halliday, M. A. K., & Martin, J. R. (1993). *Writing science: literacy and discursive power*. London: Falmer Press.

Henry L. Bart, Jr. (2024). Presenting research results. Tulan university. https://www2.tulane.edu/~lamp/pdfs/Presenting_Research_Results.pdf

Hutchinson, T., & Waters, A. (1987). *English for Specific Purposes: A Learning-Centered Approach*. Cambridge: Cambridge University Press.

Hüttner, J. (2010). The potential of purpose-built corpora in the analysis of student academic writing in English. *Journal of Writing Research*, 2(2), 197-218.

Hyland, K. (2000). *Disciplinary discourses: Social interactions in academic writing*. London, UK: Longman. In Darabad, A. M. (2016). Move Analysis of Research Article Abstracts: A Cross-Disciplinary Study. *International Journal of Linguistics*, 8(2), 125-140. <http://dx.doi.org/10.5296/ijl.v8i2.9379>

Hyland, K. (2000). *Disciplinary Discourses. Social Interactions in Academic Writing*. Longman/Pearson Education. In Dewi, N. S. N., & Harmawan, V. (2022). Genre Analysis of Research Abstract: A Literature Review. *TLEMC (Teaching & Learning English in Multicultural Contexts)*, 6(2), 123-130.

Hyland, K. (2000). *Disciplinary discourses: Social interactions in academic writing*. London, UK: Longman. In Arianto, M. A., Saukah, A., Basthomi, Y., & Wulyani, A. N. (2021). Previous studies have several limitations ...: Indonesian doctoral students', Indonesian academics', and international authors' research gap strategies in ELT research article abstracts and introductions. *Journal of Language and Education*, 7(2), 25-44.

Hyland, K. (2004). *Disciplinary Discourses: Social Interactions in Academic Writing*. The Michigan University Press. In Dogan-Ucar, A. & Akbas, E. (2022). A corpus-driven cross-disciplinary study of inclusive and exclusive we in research article abstracts. *LEARN Journal: Language Education and Acquisition Research Network*, 15(1), 180-204.

Hyland, K. (2006). *English for Academic Purposes: An Advanced Resource Book*. London and New York: Routledge.

Hyland, K. (2007). *Disciplinary discourses: Social interactions in academic writing*. University of Michigan Press. In Arsyad, S., Madani, Pratiwi, V. A., An-Nashir, A. Z., Erviona, L., Hasiyanti, H., & Marjelina, O. (2023). The rhetorical structure and research gap strategies in journal article abstracts in language-related fields published in high-impact international journals. *LEARN Journal: Language Education and Acquisition Research Network*, 16(1), 703-725.

Imsa-ard, P. (2021). Genre Analysis of Research Article Abstracts in Language Education and Acquisition Research. *International Journal of Humanities and Social Sciences*, 11(2), 74-98.

Jordan, R. (1997). *English for Academic Purposes*. Cambridge: Cambridge University Press.

Kanoksilapatham, B. (2005). Rhetorical structure of biochemistry research articles. *English for Specific Purposes*, 24, 269–292.

Kanoksilapatham, B. (2007). Rhetorical moves in biochemistry research articles. *Discourse on the move: Using corpus analysis to describe discourse structure*, 28, 73-119.

Kaplan, R. B., Cantor, S., Hagstrom, C., Kamhi-Stein, L. D., Shiotani, Y., & Zimmerman, C. B. (1994). On abstract writing. *Text - Interdisciplinary Journal for the Study of Discourse*, 14(3), 401-426. <https://doi.org/10.1515/text.1.1994.14.3.401> In In Cross, C. & Oppenheim, C. (2006). A Genre Analysis of Scientific Abstracts. *Journal of Documentation*, 62(4), 428-446. <https://doi.org/10.1108/00220410610700953>

Kavutu, A. (2024). Compare/Contrast Qualitative and Quantitative Research Strategies. <https://www.academia.edu>

Khanday, S. A., & Khanam, D. (2019). The Rsearch Design. *Journal of Critical Reviews*, 6(3), 367-376.

Himouri, K., Hamouine, A., & Guettatfi, L. (2023). Compressive Creep and Ultrasonic Characterization of Adobe Bricks Stabilized with Quicklime, Portland Cement, and Date Palm Fibers. *International Journal of Architectural Heritage*, 1–20. <https://doi.org/10.1080/15583058.2023.2262954>

Kumar, R. (1999). *Research Methodology: A step-by-Step Guide for Beginners*. London: Sage Publications Ltd. In Khanday, S. A., & Khanam, D. (2019). The Rsearch Design. *Journal of Critical Reviews*, 6(3), 367-376.

Lademora, R. A. (2021). Similarities and differences between academic and non-academic writing. <https://fr.scribd.com/document/510099829/English>

Lallam, M., Djebli, A., & Mammeri, A. (2023). Fuzzy Analytical Hierarchy Process for Assessing Damage in Old Masonry Buildings: A Case Study. *International Journal of Architectural Heritage*, 1–20. <https://doi.org/10.1080/15583058.2023.2295885>

Lamri, C. E. (2016). *An Introduction to English for Specific Purposes (ESP). Online lectures for third year 'Licence' level*. University of Tlemcen.

Liumbruno, G. M., Velati, C., Pasqualetti, .P, & Franchini, M. (2012). How to write a scientific manuscript for publication. *Blood Transfus*, 11, 217-226. <https://10.2450/2012.0247-12>

Lo Presti, N., Castellazzi, G., D’Altri, A. M., Bertani, G., de Miranda, S., Azenha, M., ... Mazzotti, C. (2024). Streamlining FE and BIM Modeling for Historic Buildings with Point Cloud Transformation. *International Journal of Architectural Heritage*, 1–14. <https://doi.org/10.1080/15583058.2024.2330942>

Lorés, R. (2004). On RA abstracts: from rhetorical structure to thematic organization. *English for Specific Purposes*, 23, 280-302.

Malawi, Z. (2017). *A contrastive genre analysis of EFL graduate students' MA theses abstract sections*. Master's dissertation, Larbi Ben M'Hidi University-Oum EL Bouaghi)

Martín, P. M. (2002). A Genre-Based Investigation of Abstract Writing in English and Spanish. *Revista Canaria De Estudios Ingleses*, 44, 47-64.

Mchmaster. (2024). Definition of architecture by architects and experts. <https://www.mchmaster.com/news/definition-of-architecture-by-architects/>

Merriam-Webster. (2024). Analysis. In Merriam-Webster.com dictionary. <https://www.merriam-webster.com/dictionary/analysis>

Meyer, L. (1996). The Contribution of Genre Theory to Theme-based EAP: Navigating Foreign Fiords. *TESL CANADA JOURNAL*, 13(2), 33-45.

Miller, C. R. (1984). Genre as social action. *Quarterly Journal of Speech*, 70(2), 151-167.

Min, Q., Gao, D., Ma, Q., & Xu, S. (2024). Research on the Effectiveness of Tetraethoxysilane-Reinforced Earthen Site: Influence of Soil Water Content and Curing Humidity. *International Journal of Architectural Heritage*, 1–13. <https://doi.org/10.1080/15583058.2024.2325476>

Mohd, T. Z., Mariana Yusoff, R., & Subatira, B. (2019). Technical Report Writing in Engineering Studies. *LSP International Journal*, 6(2), 45–59, <https://doi.org/10.11113/lspi.v6n2.91>

Moll, Luis C. (1990). *Vygotsky and education: Instructional implications and applications of sociohistorical psychology*. Cambridge: Cambridge University Press. In Gopal, P. P. (2019). English for Academic Purposes: Theory, Trends and Practices. *Education and Development. CERID/TU*. 1-14.

Mouraz, C. P., Almeida, R. M. S. F., Ferreira, T. M., & Mendes Silva, J. (2023). Application of Data Mining Techniques to Rural Vernacular Buildings: A Methodology for Characterisation and Awareness. *International Journal of Architectural Heritage*, 1–19. <https://doi.org/10.1080/15583058.2023.2287151>

Negro Alousque, I. (2016). Developments in ESP: from register analysis to a genre-based and CLIL-based approach. *Revista de Lenguas para Fines Específicos*, 22(1), 190-212.

Ning, Z. (2008). A genre-based analysis of English research article abstracts and the linguistic feature of personal pronouns for financial economics. *Education Review*, 5(7), 62-65.

Nwogu, K. N. (1997). The medical research paper: Structure and function. *English for Specific Purposes*, 16(2), 119-138.

O'Brien, D. (2024). What is English for Specific Purposes? <https://www.eci.ie/eap-what-is-english-for-academic-purposes/>

Oommen, M. (2021). How To Write a Manuscript? Step-by-Step Guide to Research Manuscript Writing. <https://researcher.life/blog/article/writing-a-manuscript/>

Oshima, A., & Hogue, A. (2007). *Introduction to academic writing. Third edition.* New York: Pearson Longman.

Oxford Brookes University. (2024). Academic Writing. <https://www.brookes.ac.uk/students/academic-development/online-resources/academic-writing>

Parkinson, J. (2017). The student laboratory report genre: A genre analysis. *English for Specific Purposes*, 45, 1-13. <https://doi.org/10.1016/j.esp.2016.08.001>

Pho, P.D. (2008). Research article abstracts in applied linguistics and educational technology: A study of linguistic realizations of rhetorical structure and authorial stance. *Discourse Stud*, 10, 231–250. In Can, S., Karabacak, E., & Qin, J. (2016). Structure of Moves in Research Article Abstracts in Applied Linguistics. *Publications*. 4(3, 23), 1-16. <https://doi.org/10.3390/publications4030023>

Prosperi, A., Longo, M., Korswagen, P. A., Korff, M., & Rots, J. G. (2024). 2D and 3D Modelling Strategies to Reproduce the Response of Historical Masonry Buildings Subjected to Settlements. *International Journal of Architectural Heritage*, 1–17. <https://doi.org/10.1080/15583058.2024.2325472>

Rani, E., Jithin, G., Phurailatpam, S. J., Radhika, K., & Clement, I. (2019). Mixed Research Design. *Journal of Nursing Science Practice, Research and Advancements*, 1(2), 1-6. <http://doi.org/10.5281/zenodo.2564504>

Raphael, J.A. (2021). Writing the Discussion Section/ Results/ Findings Section of an Academic Research Study/ Thesis. In Academia website. Retrieved from https://www.academia.edu/58957086/Writing_the_Discussion_Section_Results_Findings_Section_of_an_Academic_Research_Study_Thesis

Rifaioğlu, M. N., Hurol, Y., & Şahali, Ö. (2024). Traditional Know-How for Earthquake Resistance: The Logical Framework of Coffered Wall and Ceiling Systems in Historical Antakya Houses. *International Journal of Architectural Heritage*, 1–20. <https://doi.org/10.1080/15583058.2024.2308515>

Saad, K., Pintér, E., & Lengyel, A. (2024). Comparative Study on Complete Characterisation of Elastic–Ductile Compressive Behaviour of Aged and New Norway Spruce Timber. *International Journal of Architectural Heritage*, 1–11. <https://doi.org/10.1080/15583058.2024.2303472>

Saidi, M., & Talebi, S. (2021). Genre Analysis of Research Article Abstracts in English for Academic Purposes Journals: Exploring the Possible Variations across the Venues of Research. *Hindawi, Education Research International*, 1–5. <https://doi.org/10.1155/2021/3578179>

Salager-Meyer, F. (1990). Discoursal Flaws in Medical English Abstracts: A Genre Analysis per Researchand Text-type. *Text*, 10(4), 365-384. Martín, P. M. (2002). A Genre-Based Investigation of Abstract Writing in English and Spanish. *Revista Canaria De Estudios Ingleses*, 44, 47-64.

Savini, F., Iezzi, S., Trizio, I., Fabbrocino, G., & Sandoli, A. (2024). Historical, Architectural, and Structural Virtual Tour for Conservation and Maintenance of Architectural Heritage. *International Journal of Architectural Heritage*, 1–19. <https://doi.org/10.1080/15583058.2024.2344175>

Searle, J. R. (1969). *Speech Acts: An Essay in the Philosophy of Language*. Cambridge: Cambridge University Press.

Stiell, I. G., For the Canadian EM Writing Group. (2021). Guide to writing and publishing a scientific manuscript: Part 1— The structure. *Can J Emerg Med*, 24, 117–119. <https://doi.org/10.1007/s43678-021-00241-5>

Sumayya, C. P., Mary, H., & Asha, P. (2019). *Writing for academic and professional success (Course). ENG2 A03. Semester 2*. University of Calicut.

Swales, J. M. (1981). *Aspects of Article Introductions*. Birmingham, UK: U of Aston, Language Studies Unit. In Martín, P. M. (2002). A Genre-Based Investigation of Abstract Writing in English and Spanish. *Revista Canaria De Estudios Ingleses*, 44, 47-64.

Swales, J. M. (1990). *Genre Analysis: English in Academic and Research Settings*. Cambridge: Cambridge University Press.

Swales, J. M. (2004). *Research genres: Explorations and applications*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139524827>

Swales, J. M., & Feak, C. B. (2009). *Abstracts and the writing of abstracts (Vol. 2)*. The University of Michigan Press. <https://doi.org/10.3998/mpub.309332> In Bhatti, I. A., Mustafa, S., & Azher, M. (2019). Genre Analysis of Research Article Abstracts in Linguistics and Literature: A Cross Disciplinary Study. *International Journal of English Linguistics*, 9(4), 42-50. <https://doi.org/10.5539/ijel.v9n4p42>

Swales, J. M., & Feak, C. B. (2009). *Abstracts and the writing of abstracts (Vol. 2)*. Ann Arbor, MI: University of Michigan Press. In Imsa-ard, P. (2021). Genre Analysis of Research Article Abstracts in Language Education and Acquisition Research. *International Journal of Humanities and Social Sciences*, 11(2), 74-98.

Swales, J. M., & Feak, C. B. (2012). *Academic writing for graduate students: Essential tasks and skills*. Michigan: The University of Michigan Press.

Sweetband center for writing. (2013). What exactly is an abstract, and how do I write one? University of Michigan. <https://lsa.umich.edu/content/dam/sweetland-assets/sweetland/documents/WritingGuides/WhatExactlyIsAnAbstract.pdf>

Taylor & Francis. (2024). What is the abstract in a paper? <https://authorservices.taylorandfrancis.com/publishing-your-research/writing-your-paper/using-keywords-to-write-title-and-abstract/>

Vandenabeele, L., Loverdos, D., Pfister, M., & Sarhosis, V. (2023). Deep Learning for the Segmentation of Large-Scale Surveys of Historic Masonry: A New Tool for Building Archaeology Applied at the Basilica of St Anthony in Padua. *International Journal of Architectural Heritage*, 1–13. <https://doi.org/10.1080/15583058.2023.2260771>

Wang, P. F., Puteri Zarina, M. K., & Haddi, J. K. (2023). A Review of Genre Analysis of Academic Writings. *Arab World English Journal*, 14 (4), 372-383, <https://dx.doi.org/10.24093/awej/vol14no4.23>

Xu, X. (2022). A genre-based analysis of questions and comments in Q&A sessions after conference paper presentations in computer science. *English for Specific Purposes*, 66, 63-76. <https://doi.org/10.1016/j.esp.2021.12.002>

Zanelli, P. (2017). Subversive writing: Mona Prince's 'Laughing revolution' from pre-to post-2011 Egypt. *Journal of Arabic and Islamic Studies*, 17, 35-52. <https://doi.org/10.5617/jais.6101>

Zhang, X., Liu, K., & Han, Y. (2023). Moment-Rotation Calculation Method and Parameter Analysis for Loose Continuous-Tenon Joint in Column-And-Tie Timber Structure. *International Journal of Architectural Heritage*, 1–15. <https://doi.org/10.1080/15583058.2023.2255558>

Zhou, Q. (2024). Research on Traditional Reinforcement Techniques for Rammed Earth Walls in China. *International Journal of Architectural Heritage*, 1–19. <https://doi.org/10.1080/15583058.2024.2305190>

Appendices

Appendix 1: Comparative summary of the previous studies

Table Appx.1.1. Comparative summary of the previous studies

Title of study	Authors	Year	Journal or university	Fields	Aim	Corpus	Method	Main findings
A Genre-Based Investigation of Abstract Writing in English and Spanish (Research article)	Martín, P. M.	2002	Revista Canaria De Estudios Ingleses, 44, 47-64	Phonetics and Psychology	Epistemic studying of the abstracts structure "English and Spanish".	160 RA abstracts (80 abstracts written in English and 80 in Spanish).	1) Rhetorical structure analysis based on based on the models of Swales (1981, 1990), Dudley-Evans (1986), Salager-Meyer (1990) and Santos (1996). 2) Frequency and distribution of modality for each unit of both languages.	1) The distribution of modality follows similar patterns in both languages. 2) The frequency of epistemic modality in English texts is greater due to the socio-cultural variables.
On RA abstracts: from rhetorical structure to thematic organisation (Research article)	Lorés, R.	2004	English for Specific Purposes, 23, 280-302	Linguistics	Analyze research articles abstracts linguistically from rhetorical structure and theme patterns and development.	36 abstracts drawn from four renowned linguistics journals.	1) Rhetorical structure analysis Based on IMRD type and CARS type. 2) Thematic analysis based on the thematic progression (TP) patterns and the thematic development method.	1) The various patterns of theme distribution in RA abstracts indicate that thematic analysis. 2) The "combinatory type" combines IMRD and CARS patterns, revealing a sophisticated rhetorical framework. 3) Thematic progression patterns demonstrate deliberate organizing, and each abstract segment has distinct topic.
A Genre Analysis of Scientific Abstracts (Research article)	Cross, C. & Oppenheim, C.	2006	Journal: Journal of Documentati on, 62(4), 428-446	Protozoology	Define the typology and functions of abstracts, and evaluate their conformity to standards.	12 abstracts randomly chosen over a 10-year period (1994 to 2004).	1) Following steps for conducting an effective genre analysis according to Bhatia (1993). 2) Five moves Suggested by Endres-Niggemeyer (1998) and Santos (1996). 3) Thematic analysis presented by Halliday and Martin (1993) through the analysis of the use of grammatical subjects as markers of theme. 4) Grammatical subject functions in the abstracts were analyzed according to the four domains (using 16 sub-domains) identified by Kaplan et al (1994).	1) Abstract authors primarily thematize their topics by referencing either the discourse domain or the 'real' world. 2) Not all abstracts followed the guidelines. 3) Consensus exists on semantic organization and thematic structure.
A genre-based analysis of English research article abstracts and the linguistic feature of personal pronouns for financial economics (Research article)	Ning, Z.	2008	Education Review, 5(7), 62-65	Financial economics	Focus on financial economics to address a gap in knowledge, and contribute to worldwide research on genre analysis publications.	50 English RA (Research Article) abstracts.	1) Bhatia's (1993) four-move model. 2) Approaches for identifying schematic structures suggested by Nwogu (1997), which include inferring moves from context and language indicators.	1) Only 10 abstracts adhere to the prescribed structure, while 40 exhibit deviations like reordering, missing moves, or unconventional insertions. 2) First-person plural pronouns can have several purposes in abstractions.

Move Analysis of Journal Research Articles Abstracts: The Case of Applied Linguistics and Language Learning & Technology (Dissertation of Magister)	Amairi, H.	2012	University of Mostaganem	Applied Linguistics and Language Learning & Technology	Examine whether applied linguistics abstracts writing follows the Santos' model (1996)	40 abstracts from research articles published in Applied Linguistics and Language Learning & Technology journals	1) Five moves of Santos' model (1996), which are released via a series of sub-moves. 2) WordSmith programs (Wordlist, Concord and KeyWords (Scott, 2010)), to look at how words behave in his texts or those of others.	1) Researchers in AL and LLT journals write abstracts similarly. 2) International abstracts are thus more informative and systematic since they follow the five steps suggested by Santos. 3) Genres provide a precise approach to discern between different forms of English and serve as a framework for teaching grammar and speech.
Move Analysis of Research Article Abstracts: A Cross-Disciplinary Study (Research article)	Darabad, A. M.	2016	International Journal of Linguistics, 8(2), 125-140	Applied Linguistics, Applied Mathematics, and Applied Chemistry	Investigate research paper abstracts and assess their constituent rhetorical structures and grammatical aspects across	63 abstracts from research articles in Applied Linguistics (AL), Applied Mathematics (AM), and Applied Chemistry (AC)	1) Hyland's (2000) five-move model. 2) Comparing the three groups for each move and step in Hyland's (2000) model. 3) Highlighting the main differences between them.	1) Move patterns of each discipline, particular moves and steps, the voice and tense of verbs used in each move. 2) Authors' self-mention alterations were detected. 3) Pedagogical implications for professional instructors working in Discourse Analysis (DA), English for Academic Purposes (EAP), and English for Specific Purposes (ESP) are addressed.
Genre Analysis of Research Article Abstracts in Linguistics and Literature: A Cross Disciplinary Study (Research article)	Bhatti, I. A., Mustafa, S. & Azher, M.	2019	International Journal of English Linguistics, 9(4), 42-50	Linguistics and Literature	Investigate the macro and micro structures present in the Linguistics and Literature Abstracts, and investigate the differences and similarities.	40 abstracts picked at random, and recent abstracts were chosen to ensure that the study reflected current patterns in abstracts from both fields	1) Swales's (2004) CARS model for macro structure analysis. 2) Swales and Feak's (2009) model was chosen for micro-level analysis. 3) AntMover software was used.	1) Both linguistics and literature abstracts have two similar macro moves. 2) Notable micro-level contrasts include the predominance of citations (95%) in literature abstracts but only 30% in linguistics, as well as the considerable usage of acronyms in linguistics abstracts (65%) vs. literature abstracts (10%).
Genre Analysis of Research Article Abstracts in Language Education and Acquisition Research (Research article)	Imsa-ard, P.	2021	International Journal of Humanities and Social Sciences, 11(2), 74-98	Language Education and Acquisition	To fill the gap and examine the move structure of abstracts in applied linguistics and language education	16 abstracts were taken from a top journal on language education and acquisition in Thailand (Indexed journal in the SCOPUS and ERIC databases).	1) Swales's (2004) CARS model for macro structure analysis. 2) Swales and Feak's (2009) model was chosen for micro-level analysis. 3) Cohen's kappa (κ) served as the statistical tool for assessing the coding performance.	1) The purpose and product moves were most frequently used in abstracts, but the introduction, method, and conclusion were infrequently ignored. 2) Variables revealed that most abstracts were around 150 words long, used present verbs, and had some acronyms, with citations and first-person pronouns being uncommon.
Genre Analysis of Abstracts of Research Articles Published in Biostatistics (Research article)	Bonsu, E. M., & Aful, J. B. A.	2022	International Journal of Literature, Language and Linguistics, 5(1), 17-38.	Biostatistics	Investigate the move structure and lexicogrammatical features of the abstracts (move frequency, move sequencing, and textual space).	40 abstracts on RA from four different journals, with each providing ten articles.	1) Hyland's (2000) five-move model. 2) Hüttner's classification model (2010), for the frequency of moves, (obligatory, core, ambiguous, or optional). 3) Encompass assessing the frequency, sequence, and allocation of textual space in structure of the moves.	1) Essential sections are "Purpose," "Product," "Method," and "Conclusion" (sequence M1>M2>M3>M4>M5). 2) Personal pronouns and past verb tenses dominated. 3) Modal verbs were uncommon, but were prevalent in the Introduction and Conclusion moves.

<p>The Rhetorical Structure and Research Gap Strategies of Journal Article Abstracts in Language Related Fields Published in High-impact International Journals (Research article)</p>	<p>Arsyad, S., Madani, M., Pratiwi, V. A., An-Nashird, A. A., Erviona, L., Hasiyanti, H., & Marjelina, O.</p>	<p>2023</p>	<p>Language Education and Acquisition Research Network, 16(1), 703-725</p>	<p>English Language Teaching</p>	<p>Investigate the rhetorical moves used in abstracts from high-impact international journals, with a emphasis on how writers use a research gap strategy (RGS).</p>	<p>100 abstracts were chosen from ten prestigious worldwide journals in language-related fields.</p>	<p>1) Five moves recommended by of Hyland (2007). 2) Five research gap strategies suggested by Arianto, et al. (2021).</p>	<p>1) Abstracts (RAAs) often contain at least four moves (movements 2, 3, 4, and 5). 2) Despite publishing in high-impact international journals in language-related fields (LRF), authors tend to avoid including Strategy 1 (highlighting the lack of research on a specific topic) and Strategy 4 (contrasting previous research findings) in their RAAs.</p>
<p>Genre Analysis of the Abstracts of EAP and AAP Journal Articles: A Comparative Study with Pedagogical Implications (Research article)</p>	<p>ElSerty, L.</p>	<p>2024</p>	<p>Journal of Academic Perspectives, 2024(1), 22-40</p>	<p>English Language Teaching</p>	<p>Examine similarities and differences in move frequency and sequence in abstracts written in English for Academic Purposes (EAP) and Arabic for Academic Purposes (AAP) languages, and their lexicogrammatical features.</p>	<p>10 journal article abstracts, five from English for Academic Purposes (EAP) journals and five from Arabic for Academic Purposes (AAP) publications, published between 2017 and 2022.</p>	<p>1) Qualitative analytical framework, with color codes representing several rhetorical moves of Hyland (2000) in abstracts. 2) Quantitative analysis using Chi-Square test to compare move distributions.</p>	<p>1) Introduction and Methodology were more common in EAP samples, whereas the Purpose appeared in all AAP abstracts but only 60% of EAP samples. 2) However, the rates of Results and Conclusions were same in EAP and AAP abstracts. 3) Research writing educators should take into account students' language and disciplinary backgrounds, including all IPMRC steps.</p>

This table summarizes the literature review included in this dissertation with more details.

Appendix 2: What is the abstract in a paper according to Taylor & Francis

Database?

Figure Appx. 2.1. What it is an abstract in paper according to Taylor & Francis website (2024)

What is the abstract in a paper?

An abstract is 'a few sentences that gives the main idea in an article or a scientific paper' – definition of abstract from the Cambridge Academic Content Dictionary © Cambridge University Press.

The abstract section of a research paper is the selling pitch of your article. It is where researchers can get a quick insight and decide whether to continue reading and cite your content, or instead look elsewhere.

It's worth spending time to write an abstract that will win readers over. Think about article abstracts that you have read in the past.

What qualities would encourage you to read the full article? Is there anything that would put you off delving any deeper into the article? Consider these factors when writing your abstract.

Here are some ideas on what to focus on, to achieve the purpose of an abstract in research paper:

- What your research is about
- What methods have been used
- What you found out

Each journal will have its own word limit for abstracts which you'll find in the instructions for authors, but approximately 100–200 words are what you have to work with. Check the guidelines for the word count before you start writing.

As you would expect, accuracy is crucial in a good abstract. Whatever you argue or claim in the abstract must reflect what is in the main body of your article. There's no room for discussion, or introducing any further points.

This figure explains some concepts about the abstract in paper according to Taylor & Francis database (2024).

Abstract in Arabic

ملخص

تتميز الكتابة الأكاديمية بشكل أساسي بالتوافق مع تقاليد التخصص التي تعزز الاتصال ونقل المعلومات. نظرًا لكونها واحدة من الأنواع الأكاديمية، فإن المقالة البحثية (Research Article) في اللغة الإنجليزية للأغراض الأكاديمية (EAP) تعد واحدة من أهم المنتجات الأكاديمية، التي تعنى بالرقى بالمعرفة. بناءً على تحليل النوع (Genre Analysis)، تسعى هذه الدراسة إلى مقارنة أربعة وعشرين (24) ملخصًا لمقالات بحثية، بهدف توضيح سماتها المميزة. تم تحليل هذه الملخصات، التي تم اختيارها من المجلة الدولية للتراث المعماري خلال العام الدراسي 2023-2024، أولاً على المستوى الكلي تستهدف الخطوات البلاغية (move Analysis) وثانياً على المستوى الجزئي، الذي يعالج السمات اللغوية (linguistic features). كشفت النتائج الرئيسية أن أوجه التشابه أكثر من الاختلافات بين الملخصات التي تم فحصها بشكل أساسي هو الاعتماد الشائع لنموذج (Can et al. 2016)، متجاوزًا الخطوات الأربع (المقدمة، الغرض، المنهجية، والنتائج) التي اقترحتها قاعدة بيانات Taylor & Francis حيث يتم فهرسة المجلة المختارة ويرجع ذلك إلى أن قاعدة البيانات متساهلة في قبول المقالات البحثية ما دامت تظهر قيمة علمية. كما أكدت نتائج الدراسة عدم وجود اتفاق بشأن المميزات اللغوية. إذن، قصد تسهيل فهم مقالات الباحثين المختصين في العمارة التراثية، لا بد من اعتماد أنماط مؤسسة في كتابة ملخصاتها، وذلك قصد زيادة مقروئية تلك المقالات في أوساط المجتمع الأكاديمي والاعتراف بها، ثم الاستشهاد بها.

الكلمات المفتاحية: المقالة البحثية، كتابة الملخص، الإنجليزية للأغراض الأكاديمية، تحليل النوع، الخطوات، السمات البلاغية، التراث المعماري.